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FINAL REPORT ON ASPARTAME STUDIES

EFFECT OF ASPARTAME LOADING UPON PLASMA AND ERYTHROCYTE
FREE AMINO ACID LEVELS IN NORMAL ADULT SUBJECTS

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TO

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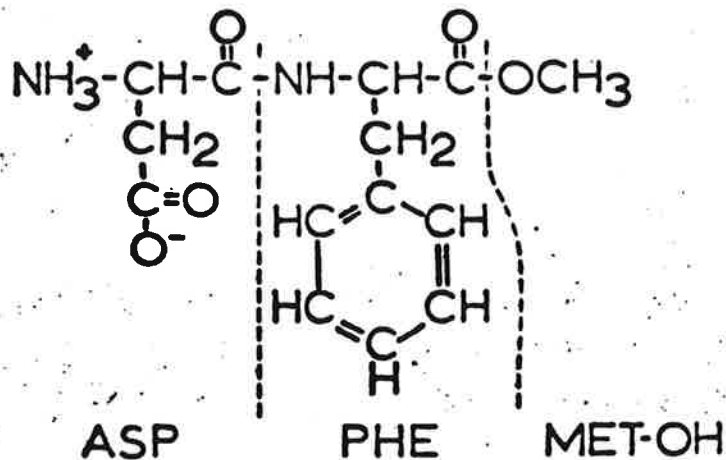
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GENERAL INTRODUCTION

ASPARTAME is a dipeptide whose structure is shown below. The molecule is an aspartyl-phenylalanyl-methyl ester, and it is between 180-200 times sweeter than sucrose. It is metabolized in the intestinal mucosa to its component amino acids and methanol which are handled in a manner similar to those arising from dietary protein and methylated polysaccharides.

ASPARTAME



Questions about ASPARTAME safety have risen because of concern about the potential toxic effects of its component amino acids, phenylalanine and aspartate. Each of these components, like all chemical substances, may exert

toxic effects at high levels, although species and age susceptibility vary.

Aspartate:

The dicarboxylic amino acids glutamate and aspartate produce neuronal necrosis in the hypothalamus of the infant mouse when administered in large doses either orally or by injection (1). Older mice are also susceptible to dicarboxylic amino acid-induced neuronal necrosis, but much higher levels of amino acids are required to produce the lesion (2). Olney and Ho (3) reported that the effects of glutamate and aspartate are additive in producing neuronal necrosis in the mouse. Although Olney and his colleagues have reported neuronal necrosis after glutamate administration to the neonatal primate (4,5) other investigators have been unable to produce the lesion in the neonatal primate (6-11). This failure occurs despite demonstration that enormous elevations in the blood glutamate levels occurred in the neonatal animals studied (10). No lesions were seen when glutamate was injected into the primate fetus in utero (12).

In the most susceptible animal species, the neonatal mouse, we have shown that plasma glutamate plus aspartate levels must reach 60-70 μ moles/dl before the first signs

of neuronal necrosis are noted (13). In the infant monkey, plasma glutamate plus aspartate levels up to 500 μ moles/dl did not result in neuronal necrosis (10).

In summary: Plasma glutamate plus aspartate levels of up to 50 μ moles/dl did not produce neuronal lesions in the most susceptible species, the neonatal mouse. Plasma levels of 60-70 μ moles/dl did produce minimal neuronal necrosis. In contrast, neuronal necrosis was not noted in infant primates even in the presence of plasma glutamate plus aspartate levels of 500 μ moles/dl.

Phenylalanine:

A genetic disorder called phenylketonuria results from either the absence of, or the presence of an inactive enzyme(s) required for the conversion of phenylalanine to tyrosine. In the children with so-called "classical phenylketonuria", plasma levels of phenylalanine exceed 180 μ moles/dl (30 mg%) and range from 180 to 660 μ moles/dl (30-100 mg%) (14-16). These levels of phenylalanine are associated with mental retardation. To prevent retardation, the infants must be placed on diets low in phenylalanine content to decrease blood phenylalanine levels. The exact

cause(s) of the mental retardation in children with classical phenylketonuria is not clear, but is thought to be due to the effects of both high levels of phenylalanine, and metabolites of phenylalanine such as phenylpyruvate, on brain metabolism (14-18).

Although some investigators feel that there is no benign persistent hyperphenylalaninemia and recommend diet therapy for any patient with phenylalanine levels ranging from 10-20 mg% (60-120 μ moles/dl), most investigators now feel that dietary therapy is not needed when blood phenylalanine levels are below 10 mg% and excess phenylalanine metabolites are not present. This assumption is based largely on the clinical records of children with hyperphenylalaninemia (PKU-Variants) who have persistent blood phenylalanine levels of 6-10 mg% without ill effect (14-16).

In summary: Plasma phenylalanine levels of up to 60 μ moles/dl (10 mg%) appear to be relatively benign. Studies of patients with variants of hyperphenylalaninemia indicate that only conditions which cause continued elevations of phenylalanine markedly above this level tend to be associated with mental retardation (14,15,48).

EFFECT OF ASPARTAME LOADING AT 34 MG PER KG BODY WEIGHT
UPON BLOOD LEVELS OF AMINO ACIDS IN NORMAL VOLUNTEERS

Introduction

In considering the potential toxic effects of ASPARTAME in man, it is obvious that such effects would require extreme elevations of aspartate and phenylalanine blood levels above those found after normal ingestion of a protein-containing meal. To examine the potential hazard, we administered either ASPARTAME at 34 mg/kg body weight, or equimolar quantities of aspartate (13 mg/kg) to normal volunteers and determined the effect of such ingestion upon plasma and erythrocyte amino acid levels with time.

As illustrated in Table I, the load of ASPARTAME administered to these subjects is considerable. A 70 kg man may be considered to have a requirement for about 2500 calories per day to maintain body weight. Approximately 17% of these calories are ingested as sucrose. Thus, sucrose ingestion for the day is about 1.5 gm/kg body weight. Considering the range of ASPARTAME sweetening power to be 180-200 times that of sucrose, if such an individual ingested all the sucrose sweetening power as ASPARTAME,

ASPARTAME intake would be between 7.5-8.5 mg/kg per day. Similarly, if we assume total carbohydrate intake to be 50% of total calories, about 313 gms of carbohydrate are ingested. If all of this carbohydrate were ingested as sucrose, the subject would ingest about 4.5 gm/kg per day. If the sweetening equivalent of this amount of sucrose were ingested as ASPARTAME, an intake of 23-25 mg/kg ASPARTAME per kg body weight would be ingested over the course of the entire day. In this study, we administered ASPARTAME at 34 mg/kg, well over the 99th percentile of daily ingestion, IN A SINGLE DOSE.

Materials and Methods

Twelve normal healthy subjects were studied, six male and six female. The proposed study was fully explained to each subject and informed written consent was obtained. The protocol of the study had been approved by the Human Subjects Committee of the University. The subjects were screened one week prior to entry into the study. This included a physical examination, a pregnancy test (female subjects), SMA 6/60, SMA 12/60, and fasting plasma amino acid analysis. The SMA 6/60 and SMA 12/60 tests were

repeated 24 hours after administration of each of the test substances.

ASPARTAME was administered at 34 mg/kg body weight. Aspartate was administered at a concentration equimolar (13 mg/kg) to ASPARTAME. Each compound was dissolved in 300 ml of cold orange juice and administered to fasting subjects at 0800 in a cross-over design. The order of administration was randomized. Plasma and erythrocyte amino acid levels as well as blood methanol levels were measured at 0, 0.25, 0.5, 0.75, 1, 1.5, 2, 3, 4, 8, and 24 hours after the test load. The subjects received nothing by mouth for the eight hours following the load except for 240 ml of water at 1200 and 1400. Normal meals were allowed after that point, with the 24 hour sample also obtained after an eight hour fast.

Blood samples for amino acid analysis were centrifuged immediately to separate plasma and erythrocytes. The plasma was deproteinized with sulfosalicylic acid (19) and either analyzed immediately or stored at -70°C to prevent loss of glutamine and cystine (20,21). Erythrocytes were prepared according to the method of Levy and Barkin (22). Amino acid

analyses were carried out on Technicon NC-1 or Beckman 121M amino acid analyzers.

ASPARTAME was obtained from Searle Laboratories, and L-aspartic acid was obtained from Eastman. The aspartic acid was neutralized with an equivalent amount of sodium bicarbonate prior to mixing with the orange juice.

Results

Plasma and erythrocyte free amino acid levels in these subjects are found in Tables II-V. Table II lists plasma levels and Table III lists erythrocyte levels after ASPARTAME loading at 34 mg/kg body weight. Table IV lists plasma levels and Table V lists erythrocyte levels after aspartate administration at 13 mg/kg body weight. Note that values are listed as a mean \pm standard deviation for each amino acid at each time point and that individual data are listed.

These data are also presented in graphic form in Figures 1-13. Figure 1 shows the response of plasma aspartate, asparagine, glutamate and glutamine to both ASPARTAME and aspartate load. No significant changes were noted in plasma

aspartate, asparagine or glutamine levels with either treatment. A small, insignificant rise in plasma glutamate levels was noted in all subjects although levels remained within normal fasting limits for this laboratory.

Plasma levels of alanine and proline increased after both ASPARTAME and aspartate load (Figure 2). A similar response was noted in subjects receiving lactose in orange juice and was not considered to be due to ASPARTAME or aspartate but more likely the stress of blood sampling (23), and/or the orange juice vehicle.

Plasma phenylalanine and tyrosine levels are shown in Figure 3. After ASPARTAME load, plasma phenylalanine levels increased from fasting levels of 5-6 μ moles/dl to the normal postprandial range (12 ± 3 μ moles/dl). A much smaller rise in plasma tyrosine levels was noted, with levels remaining within the fasting range (6 ± 2 μ moles/dl). As shown in Figures 4-7 all other plasma amino acid levels remained unchanged, or decreased.

It has been suggested that certain amino acids are transported in the erythrocyte to a greater extent than in plasma under certain circumstances (24-26). Thus, erythrocyte free amino acid levels were also measured. Figure 8 shows

that erythrocyte glutamate, aspartate and asparagine levels were unchanged after either ASPARTAME or aspartate administration. Erythrocyte phenylalanine and tyrosine levels (Figure 9) showed a similar but smaller response to those noted in plasma (Figure 3).

Figure 10 shows erythrocyte glutamine, proline and alanine levels after loading. Glutamine levels are unchanged, while changes in erythrocyte alanine and proline levels were similar to those noted in plasma. All other erythrocyte amino acid levels were unchanged or decreased slightly (Figures 11-13) in a manner similar to plasma levels. No changes were noted in the SMA 6/60 or SMA 12/60 analyses after dosing with either test substance.

Discussion

As summarized in Table I, the load of ASPARTAME given is considerable. A 70 kg man may be considered to have a caloric requirement of about 2500 calories per day. Approximately 17% of these calories are ingested as sucrose. Thus, sucrose ingestion per day is about 1.5 gm/kg. This is equivalent to 7.5 to 8.5 mg/kg ASPARTAME, considering its range of sweetening power to be 180 to 200 times that of sucrose.

If the total carbohydrate intake of our subject is assumed to be 50% of total calories, about 313 gms of carbohydrate are ingested. If all this carbohydrate is ingested as sucrose, the subject would ingest 4.47 gm/kg over the entire day. If the sweetening equivalent of this amount of sucrose were ingested as ASPARTAME, the subject would ingest between 23-25 mg/kg ASPARTAME over the course of the entire day. In the present study, ASPARTAME was administered at 34 mg/kg, or the 99th percentile of ingestion, in a single dose.

The results of the present study clearly demonstrate that plasma aspartate and phenylalanine levels are not elevated above normal postprandial levels despite the administration of large doses of aspartate or ASPARTAME.

Summary

The administration of ASPARTAME at 34 mg/kg body weight in a single dose to normal male and female subjects resulted in: (A) no change in plasma or erythrocyte glutamate or aspartate levels, and (B) increased plasma phenylalanine levels from normal fasting levels to the postprandial range. Phenylalanine levels returned rapidly to normal.

We conclude that no risk arises from ASPARTAME ingestion at 34 mg/kg body weight. Plasma aspartate levels are unchanged (0.2-0.8 μ moles/dl). Even the most susceptible species, the neonatal mouse, does not sustain neuronal necrosis until plasma levels reach 50-70 μ moles/dl (13). The infant primate does not sustain damage at plasma levels of 500 μ moles/dl (10). Phenylalanine levels were maintained within normal postprandial ranges set for this laboratory (27,28). Phenylalanine levels are considered toxic only at levels far above this level. Children with variants of phenylketonuria have blood phenylalanine levels three to five times the normal postprandial levels with no apparent ill effects (14,15).

Publication

The data from this study has been presented at the 1976 meeting of the American Institute of Nutrition, and published in abstract form:

Baker, G.L., Filer, L.J., Jr., Brummel, M.C., and Stegink, L.D.: "Effect of ASPARTAME loading (34 mg/kg) upon plasma and red cell free amino acid levels in normal adult subjects." Fed. Proceed. 35,497, 1976.

EFFECT OF ASPARTAME OR LACTOSE INGESTION AT 50 MG PER KG
BODY WEIGHT UPON PLASMA, ERYTHROCYTE AND BREAST MILK AMINO
ACID LEVELS IN LACTATING WOMEN

Introduction

At the present time about 38% of women with infants in the United States breast feed their infants. Present data indicate that this trend will increase. About one of five mothers in this country continues to breast feed her infant beyond two months of age, thus, it is important to determine the effect of potential food additives in the blood and breast milk of the lactating woman. This study was designed to determine if ASPARTAME ingestion will have any significant effect upon the breast milk of lactating women..

Since ASPARTAME ingestion at 34 mg/kg body weight had no effect upon aspartate levels in plasma or erythrocytes of normal subjects, it was decided to determine the effect of ASPARTAME ingestion at 50 mg/kg body weight. As noted in Table 1, ASPARTAME ingestion would be about 25 mg/kg daily if: (A) all carbohydrate calories were ingested as sucrose, and (B) the equivalent sweetening power were ingested as ASPARTAME. The level used in this study is twice that amount and was given as a single dose rather than being ingested across the entire day as would normally be the case.

Materials & Methods

Six healthy women with well established lactation were studied. The proposed study was fully explained to each subject, and informed written consent was obtained. The protocol of the study had been approved by the Human Subjects Committee of the University of Iowa.

The women were studied after administration of either ASPARTAME or a lactose load at 50 mg/kg body weight. The order of administration was randomized in a cross-over design. An interval of at least two weeks separated each segment of the cross-over design for each subject. ASPARTAME or lactose were dissolved in 300 ml cold orange juice and administered to the subjects at 0800 hours after an overnight fast. The subjects were fasted for an additional four hours after administration of the load, but were allowed normal diet after this time. Plasma and erythrocyte amino acid levels as well as blood methanol levels were measured at 0, 0.25, 0.5, 0.75, 1, 1.5, 2, 3, and 4 hours after administration of the test loads. Breast milk samples were collected at 0, 1, 2, 3, 4, 8, 12 and 24 hours after loading.

Blood samples for amino acid analyses were centrifuged immediately to separate plasma and erythrocyte. The plasma

was deproteinized with sulfosalicylic acid (19) and either analyzed immediately or stored at -70°C to prevent loss of glutamine and cystine (20,21). Erythrocytes were prepared according to the method of Levy and Barkin (22). Breast milk samples were prepared according to the method of Stegink, et al. (29). Amino acid analyses were carried out on Beckman 121M amino acid analyzers.

ASPARTAME was obtained from Searle Laboratories, and lactose from Mallinckrodt Chemicals, St. Louis, Missouri.

Results

The detailed plasma, erythrocyte and breast milk amino acid levels in these subjects after either ASPARTAME or lactose loading are found in Tables VI through XI. A brief summary of the most important data is given in the following paragraphs:

Effects on Plasma Amino Acid Levels: No significant effect of either ASPARTAME administration or lactose administration was noted upon plasma aspartate, asparagine or glutamine levels as shown in Figure 14. A small increase in plasma glutamate levels was noted after ASPARTAME ingestion, but not after lactose ingestion. This increase likely represents some conversion of the aspartate in ASPARTAME

to glutamate. Glutamate levels were still well within the normal postprandial range for this laboratory (27,28).

The increase in plasma glutamate levels was similar to that noted after ASPARTAME ingestion at 34 mg/kg and aspartate ingestion at 13 mg/kg.

As expected, plasma phenylalanine levels were increased to a peak value of 16.2 ± 4.9 μ moles/dl after ASPARTAME ingestion but were not affected by lactose (Figure 15). The level of phenylalanine noted was only slightly higher than those noted postprandially (12 ± 3 μ moles/dl) in adults and infants (27,28). Small increases in plasma tyrosine levels were also noted after ASPARTAME ingestion as the result of phenylalanine conversion to tyrosine (Figure 15). Tyrosine levels did not exceed the normal postprandial range for this laboratory of 12 ± 3 μ moles/dl (27,28).

Plasma proline and alanine levels were increased after both ASPARTAME and lactose ingestion at 50 mg/kg. The effect on other amino acids was not significant and was similar to that noted in the previous study at 34 mg/kg (Figures 1-7).

Effect on Erythrocyte Levels: No significant differences were noted between lactose or ASPARTAME ingestion for most

amino acids, including glutamate, aspartate, asparagine or glutamine. As expected, erythrocyte phenylalanine and tyrosine levels increased after ASPARTAME load, but to a lesser degree than that noted in plasma. The data for aspartate and phenylalanine are shown graphically in Figure 16. Erythrocyte proline and alanine levels also increased, but with the increases being lower than those found in plasma.

Breast Milk Levels: Comparison of breast milk levels in these subjects shows small increases in tyrosine, phenylalanine and aspartate levels with time after ASPARTAME administration compared to the lactose loading (Figure 17). During the four hour fasting period after ASPARTAME load, breast milk phenylalanine increased from 0.5 μ moles/dl to 2.2 μ moles/dl, while aspartate levels increased from 2.2 μ moles/dl to about 4.5 μ moles/dl. Note that the levels of these amino acids in the breast milk at eight and twelve hours are i.. the normal postprandial range. The subjects ingested a normal diet after the four hour fast. The values noted after ASPARTAME loading are similar to those which we have noted in subjects studied previously (29), who did not receive ASPARTAME (Appendix 2). In those subjects treated with lactose, breast milk phenylalanine levels ranged from 1.2 \pm

0.35 μ moles/dl at fasting to 1.8 ± 0.4 μ moles/dl post-prandial.

In any case, the quantity of increased amino acids in the milk is not a significant portion of the total daily intake. This is illustrated by the data in Table XII. Based on the data of Fomon (30), infants fed ad libitum ingest a mean of 171 ml breast milk per kg/day. If we assume the lactating mother ingests sufficient ASPARTAME to increase the breast milk phenylalanine levels for the entire day to the extent reported here for values over the four hour sampling period, this would result in an increase of breast milk phenylalanine levels by about 1.81 μ moles/dl. This will provide an increase of 3.1 μ moles or 0.51 mg phenylalanine per kg/day. This must be compared to the normal intake of this essential amino acid of 83 mg/kg/day. Thus, even under abuse situations, such as that studied here, ASPARTAME would not significantly affect the phenylalanine intake of an infant.

Similar calculations for aspartate are shown in Table XIII. The increase in aspartate levels noted in this study would result in the ingestion of about 4.6 μ moles or 0.77 mg more aspartate per kg/day. This is only a

trace quantity compared to the approximately 109 mg of aspartate ingested per kg/day from the protein of the breast milk.

Calculations for other amino acids of interest are found in Appendix I (31) of this report.

Summary

ASPARTAME loading of lactating women with 50 mg/kg resulted in: (A) no change in blood aspartate levels, (B) increased plasma phenylalanine levels to high postprandial levels, and (C) a small increase in breast milk aspartate and phenylalanine levels to the postprandial range. In view of the lack of significant biological effects from the dose administered, there appears to be no risk to the lactating woman or her nursing infant from maternal ingestion of the quantities of ASPARTAME studied.

Publication

The data from this study has been presented at the joint meeting of the Am. Soc. Clin. Nutr., the Am. Inst. Nutr., and the Nutr. Soc. Canada at their 1976 joint meeting and published in abstract form:

Baker, G.L., Filer, Jr., L.J. and Stegink, L.D.:

Plasma, red cell and breast milk free amino acid levels

in lactating women administered ASPARTAME or
lactose at 50 mg/kg body weight. J. Nutrition, 106:
XXXIII, July, 1976.

EFFECT OF ASPARTAME AT 100 MG PER KG BODY WEIGHT UPON
PLASMA AND ERYTHROCYTE FREE AMINO ACID LEVELS:
COMPARISON OF SOLUTION VS SLURRY

Introduction

In previous studies, we had failed to demonstrate an increase in plasma or erythrocyte aspartate levels after ASPARTAME ingestion at 34 or 50 mg/kg body weight. In those studies, ASPARTAME had been dissolved in 300 ml of cold orange juice. In future studies, we wished to determine the effect of high doses of ASPARTAME. Preliminary animal studies in the primate originally suggested that slurry administrations of ASPARTAME were less well absorbed. This study was designed to determine the effect of ASPARTAME ingestion at 100 mg/kg upon blood amino acid levels and to determine the effects, if any, of ingestion of abuse doses of ASPARTAME in solution or in slurry.

Our calculations indicated that the maximal abuse dose of ASPARTAME would be about 200 mg/kg. The present study is the first of a stepwise set of experiments to investigate the effect of high ASPARTAME doses on plasma and erythrocyte levels. Data were evaluated at each stage of the experiment prior to moving to the next higher dose.

Materials and Methods

Six normal subjects were studied, three male and three female. The proposed study was fully explained to each subject and informed written consent was obtained. The protocol of the study had been approved by the Human Subjects Committee of the University of Iowa. The subjects were screened prior to entry into the study. This included a physical examination, a pregnancy test (female subjects), SMA 6/60, SMA 12/60 and plasma amino acid analysis. The SMA 6/60 and SMA 12/60 tests were repeated 24 hours after administration of ASPARTAME. The subjects were administered ASPARTAME (100 mg/kg body weight) either dissolved in 500 ml of cold orange juice or as a slurry in 1.2 ml of orange juice per kg body weight, in a cross-over design after an overnight fast. A one to two week interval occurred between cross-over periods for each individual. The order of administration of ASPARTAME in solution or slurry was randomized. Blood samples were obtained at 0, 0.25, 0.5, 0.75, 1, 1.5, 2, 3, 4, 5, 6, 7, 8, and 24 hours after administration for plasma and erythrocyte amino acids as well as methanol analysis. The subjects fasted for eight hours following each test load with ASPARTAME; only water was allowed during this time period.

Blood samples for amino acid analyses were centrifuged immediately to separate plasma and erythrocytes. The plasma was immediately deproteinized with sulfosalicylic acid (19) and either analyzed immediately, or stored at -70°C to prevent loss of glutamine and cystine (20,21). Erythrocytes were prepared according to the method of Levy and Barkin (22). Amino acid analyses were carried out on Beckman 121M amino acid analyzers.

ASPARTAME was obtained from Searle Laboratories.

Results

The detailed amino acid analyses are found in Tables XIV to XVII. A brief summary of the most important points is found in the following paragraphs:

Effect on Plasma Levels: ASPARTAME ingestion at 100 mg/kg in solution had little effect upon plasma aspartate levels as shown (X) in Figure 18B. When ASPARTAME was ingested in slurry form (\square), Figure 18B, an increase in plasma aspartate levels was noted, with a mean peak value of about 1.51 ± 1.85 $\mu\text{moles/dl}$ noted. However, considerable variation in the individual responses of the six subjects to the slurry form was noted (Table XVI). Four of the six subjects studied had no

change in plasma aspartate levels, and the values obtained for these subjects were identical to the curves obtained when ASPARTAME was given in solution (X), Figure 18B. However, two subjects showed a very rapid increase in plasma aspartate levels as shown in Figure 18A, reaching peak values of 3.6 and 5.77 μ moles/dl respectively. These subjects apparently had a very rapid gastric emptying with slurry ingestion.

ASPARTAME administration in solution resulted in an increase of plasma phenylalanine levels to approximately 20 μ moles/dl as shown in Figure 21. ASPARTAME administration in slurry form resulted in the separation of the six subjects into three distinct groups of two subjects each. The first group apparently had a rapid gastric emptying (*), with rapid peaking of plasma phenylalanine levels. These two subjects also showed a rapid increase in plasma aspartate levels (Figure 18A). The second group (\square), Figure 19, had a response identical to that of the subjects ingesting ASPARTAME in solution (Figure 21). The third group had a probable delayed gastric emptying time (+ , Figure 19). Phenylalanine levels rose more slowly, and the peak was lower and broader.

As expected, plasma tyrosine levels increased to a mean of about 10 μ moles/dl, still well within normal postprandial limits. Changes in plasma glutamate, alanine and proline levels were similar to those noted at lower ASPARTAME doses.

Effect on Erythrocyte Levels: No effect upon erythrocyte aspartate, asparagine, glutamine or glutamate levels was noted. Erythrocyte phenylalanine, tyrosine, proline, and alanine levels increased as expected from the observed increases in plasma levels. Increases in the erythrocyte were lower than those noted in the plasma.

Summary

Administration of ASPARTAME at 100 mg/kg resulted in a small increase in plasma aspartate levels in two of the six subjects receiving it in slurry form. Aspartate levels were not affected in the other four subjects ingesting ASPARTAME in a slurry form or in the six subjects ingesting ASPARTAME in solution. The peak aspartate levels noted are far below the toxic levels in even the most sensitive species, the neonatal mouse. Aspartate levels must reach 60-70 μ moles/dl to produce an effect in this animal (13). Mean plasma phenylalanine levels did not

differ greatly between the slurry and solution. A mean peak level of about 20-26 μ moles/dl (4 mg%) was noted. This value is far below any toxic level of phenylalanine. However, the variability in blood levels was very large when given as a slurry with some plasma phenylalanine levels reaching 51 μ moles/dl, (8.5 mg%) for a very short period of time (Table XVI). In subsequent high dose studies the ASPARTAME dose was suspended in 500 ml of orange juice to avoid this variability.

EFFECT OF ASPARTAME LOADING AT 150 MG PER KG BODY WEIGHT
UPON PLASMA AND ERYTHROCYTE FREE AMINO ACID LEVELS IN
NORMAL ADULT VOLUNTEERS

Introduction

This study is a continuation of our studies to determine the effect of abuse levels of ASPARTAME upon plasma and erythrocyte amino acid levels. Our calculations indicate a maximal abuse dose of ASPARTAME would be 200 mg/kg. Our studies at 100 mg/kg of ASPARTAME in solution indicated no risk based on plasma and erythrocyte levels. The present study is the next step in this series, testing the response to ASPARTAME administration at 150 mg/kg.

Materials and Methods

Six normal subjects were studied, three male and three female. The proposed study was explained to each subject and informed written consent was obtained. The protocol of the study had been approved by the Human Subjects Committee of the University of Iowa. The subjects were screened prior to entry into the study. This included a physical examination, a pregnancy test (female subjects), SMA 6/60, SMA 12/60, and plasma amino acid analysis. The SMA 12/60 and SMA 6/60 profiles were repeated 24 hours after administration of ASPARTAME.

ASPARTAME (150 mg/kg body weight) was suspended in 500 ml of cold orange juice and administered to fasting subjects at 8:00 A.M. The subjects were fasted (water permitted) for the eight hours following ingestion. Blood samples for amino acid analysis and methanol were obtained at 0, 0.25, 0.5, 0.75, 1, 1.5, 2, 3, 4, 5, 6, 7, 8, and 24 hours after loading.

Blood samples for amino acid analysis were centrifuged immediately to separate plasma and erythrocytes. The plasma was immediately deproteinized with sulfosalicylic acid (19) and either analyzed immediately, or stored at -70°C to prevent loss of glutamine and cystine (20,21). Erythrocytes were prepared according to the method of Levy and Barkin (22). Amino acid analyses were carried out on Beckman 121M amino acid analyzers.

ASPARTAME was obtained from Searle Laboratories.

Results

The detailed amino acid analyses for plasma and erythrocyte levels are found in Tables XVIII and XIX. A brief summary of the most important points follows.

Effect Upon Plasma Amino Acid Levels: Very small changes in plasma aspartate levels were noted (peak = 1.0 ± 0.7 μ moles/dl at 45 minutes) after ASPARTAME ingestion as shown in Figure 20 (blue line). Because of the sensitivity of the Beckman 121M amino acid analyzer, these small differences in plasma aspartate levels can be detected. Note, however, that these levels are still below those noted postprandially in young infants fed formula diets (27,28). Plasma phenylalanine levels increased to a peak of about 35.1 ± 11.3 μ moles/dl after loading (blue line, Figure 21), and plasma tyrosine levels increased to a peak of about 11 ± 2.8 μ moles/dl (blue line, Figure 22). As in previous ASPARTAME studies, a small increase in plasma glutamate to about 7 μ moles/dl was noted.

Effect Upon Erythrocyte Levels: Erythrocyte levels of glutamate and aspartate are unchanged (Figure 23). Erythrocyte levels of phenylalanine and tyrosine increase to levels nearly identical to those found in the plasma (Figure 24).

Summary

ASPARTAME ingestion at 150 mg/kg body weight had only a minimal effect upon plasma aspartate levels and no effect upon erythrocyte levels. These aspartate levels are still

very much below those required to produce any damage in the most susceptible species, the neonatal mouse as outlined on pages one and two. Phenylalanine levels reached a peak level of 35 μ moles/dl (5.8 mg%) and rapidly returned to normal. This temporary elevation of phenylalanine levels is also well below that which might cause any toxic effect as outlined on pages three and four of this report.

For example, children with variant forms of phenylalaninemia are known. These children are not mentally retarded, and have plasma phenylalanine levels which exceed this level continually (14,15,48,51). In addition, a large number of normal subjects, and subjects who are heterozygous for phenylketonuria, have been tested for the heterozygous state by loading with 100 mg phenylalanine/kg (14,15,48-53). Blood levels reported in one typical case are shown below (49):

Time	Plasma Phenylalanine Levels	
	μ moles/dl	mg%
0	8.4 \pm 4.8	1.4 \pm 0.8
1 hr	78.0 \pm 48.0	13.0 \pm 8.0
2 hr	61.2 \pm 52.8	10.2 \pm 8.8
4 hr	33.6 \pm 21.6	5.6 \pm 3.6

No ill effects have been reported from such short term elevations of plasma phenylalanine values.

EFFECT OF ASPARTAME LOADING AT 200 MG PER KG BODY WEIGHT
UPON PLASMA AND ERYTHROCYTE AMINO ACID LEVELS IN NORMAL
ADULT SUBJECTS

Introduction

The purpose of this study was to investigate the effect of ASPARTAME ingestion at 200 mg/kg body weight upon blood amino acid levels. The ingestion level of 200 mg/kg is considered to be the maximum abuse level of the product. This would be the potential dose received by a three year old child accidentally ingesting the entire contents of the prepared package size of ASPARTAME coffee sweetener containing 100 tablets at 20 mg/each. A similar level of ingestion was calculated for a soldier in the tropics ingesting his entire water intake for the day (20 liters maximum) as ASPARTAME sweetened beverage.

Materials and Methods

Six normal subjects were studied, three male and three female. The proposed study was explained to each subject and informed written consent was obtained. The protocol of the study had been reviewed and approved by the Human Subjects Committee of the University of Iowa. The subjects were screened prior to entry into the study. This included a physical examination, a pregnancy test (female subjects), SMA 6/60 and SMA 12/60 profiles and a plasma amino

acid analysis. The SMA 6/60 and SMA 12/60 profiles were repeated 24 hours after administration.

ASPARTAME (200 mg/kg body weight) was suspended in 500 ml of cold orange juice and administered to fasting subjects at 8:00 A.M. The subjects were fasted (water permitted) for eight hours following ingestion. Blood samples for amino acid analysis were obtained at 0, 0.25, 0.5, 0.75, 1, 1.5, 2, 3, 4, 5, 6, 7, 8, and 24 hours after loading.

Blood samples for amino acid analysis were centrifuged immediately to separate plasma and erythrocytes. The plasma was immediately deproteinized with sulfosalicylic acid (19) and either analyzed immediately, or stored at -70°C to prevent loss of glutamine and cystine (20,21). Erythrocytes were prepared according to the method of Levy and Barkin (22). Amino acid analyses were carried out on Beckman 121M amino acid analyzers.

ASPARTAME was obtained from Searle Laboratories.

Results

The detailed amino acid analyses for plasma and erythrocyte levels are found in Tables XX and XXI. A brief summary of the most important points follows.

Effect upon plasma amino acid levels: Very small changes in plasma aspartate levels were noted (peak = 0.71 ± 0.38 μ moles/dl at 90 minutes) after ASPARTAME ingestion as shown in Figure 20 (green line). The small differences in aspartate levels noted are still well below those noted postprandially in young infants fed formula diets (27,28). Plasma phenylalanine levels increased to a mean of 48.7 ± 15.5 μ moles/dl (8 mg%) after loading, and decreased rapidly (Figure 21, green line). Plasma tyrosine levels increased to a mean of 13.6 ± 12.8 μ moles/dl (Figure 22, green line) after loading. As in all previous ASPARTAME studies, a small increase in plasma glutamate levels (5.96 ± 2.42 μ moles/dl) was observed.

Effect upon erythrocyte amino acid levels: Erythrocyte levels of glutamate and aspartate were not altered. Erythrocyte levels of phenylalanine and tyrosine increased to values close to those noted in plasma.

Summary

ASPARTAME ingestion at an acute abuse level of 200 mg/kg body weight had only a minimal effect upon plasma aspartate levels, and no effect upon erythrocyte levels. The concentrations achieved are far below those required to produce

neuronal damage in even the acutely sensitive neonatal mouse. Phenylalanine levels reached a mean peak of 48 μ moles/dl, with one subject reaching about 72 μ moles/dl, and declined rapidly. These levels are also below those which would cause any toxic effect upon such short term elevation of blood levels. Short term elevations of plasma phenylalanine occur in normal subjects and phenylketonuric heterozygotes tested for the incidence of the heterozygous condition (14,15,48-53) by loading with 100 mg phenylalanine/kg body weight. Such individuals have short term elevations of their plasma phenylalanine levels similar to the levels noted above as summarized below from the data of Tocci & Beber (49):

Time	0	1 hr	2 hr	4 hr
Plasma Phenylalanine μ moles/dl	8.4 \pm 4.8	78 \pm 48	61 \pm 53	34 \pm 22

No ill effects have been reported from such short term elevations of plasma phenylalanine levels in either normal subjects or heterozygous individuals.

ASPARTAME LOADING AT 34 MG PER KG BODY WEIGHT IN FEMALE
SUBJECTS PRESUMED TO BE HETEROZYGOTES FOR PHENYLKETONURIA

Introduction

Individuals affected with the disease phenylketonuria fail to metabolize phenylalanine effectively, resulting in abnormally elevated plasma and erythrocyte phenylalanine levels. It is known that pregnant females with phenylketonuria whose phenylalanine levels are not controlled give birth to retarded children whether or not those children have phenylketonuria. This is not surprising, since the placenta concentrates phenylalanine toward the fetal circulation at the expense of maternal levels to produce a fetal to maternal ratio of about 2:1. Thus, the grossly elevated maternal phenylalanine levels noted in the female with phenylketonuria are amplified towards the fetal circulation in the event of pregnancy. Accordingly, evaluation of fetal risk must involve knowledge of phenylalanine levels in the female after loading with the phenylalanine compound in question.

The incidence rate for the heterozygous state of phenylketonuria is estimated at about 1:50. It is likely that such heterozygote subjects would ingest ASPARTAME.

This raises two questions: First, do such heterozygote subjects metabolize ASPARTAME in a normal manner? Second, if unusual metabolism of ASPARTAME is noted, would the levels of phenylalanine produced be detrimental to the fetus in utero if the individual becomes pregnant? A dose of 34 mg/kg was chosen. As outlined in Table I, this level is well over the 99th percentile of projected daily ingestion. The load was given as a single dose to maximize its effects.

Materials and Methods

A total of four female subjects known to be heterozygotes for phenylketonuria were studied. The proposed study was explained to each subject, and informed written consent was obtained. The protocol had been reviewed and approved by the Human Subjects Committee of the University of Iowa. The subjects were screened prior to entry into the study. This included a physical examination, a pregnancy test, SMA 6/60 and 12/60 profiles and a plasma amino acid analysis.

ASPARTAME was dissolved in 300 ml of cold orange juice and administered to the subjects at 0800 after an overnight

fast. The subjects were fasted for an additional eight hours after administration of the load (water permitted). Blood samples for plasma and erythrocyte amino acid levels were obtained at 0, 0.25, 0.5, 0.75, 1, 1.5, 2, 3, 4, and 8 hours after loading.

Blood samples for amino acid analyses were centrifuged immediately to separate plasma and erythrocytes. The plasma was deproteinized with sulfosalicylic acid (19) and either analyzed immediately or stored at -70°C to prevent loss of glutamine and cystine (20,21). Erythrocytes were prepared according to the method of Levy and Barkin (22). Amino acid analyses were carried out on Beckman 121M amino acid analyzers.

ASPARTAME was obtained from Searle Laboratories, Chicago, Illinois.

Results

The detailed plasma and erythrocyte amino acid analyses are found in Tables XXII and XXIII. A brief summary of the data follows:

Effect Upon Plasma Amino Acid Levels: Plasma aspartate levels were not affected in the PKU heterozygotes. These data were similar to those obtained in normal subjects

administered ASPARTAME at 34 mg/kg body weight. Figure 25 shows plasma phenylalanine and tyrosine levels in the 12 normal subjects and the four heterozygous subjects studied. Plasma phenylalanine levels in the PKU heterozygotes showed a somewhat higher and broader absorption curve than that noted in normal subjects. This was expected in view of the decreased quantity of phenylalanine hydroxylase present in such heterozygous subjects. However, maximal phenylalanine levels noted were at the upper edge of the normal postprandial range found in infants (26,27), and were below 18 μ moles/dl (3 mg%). No significant differences in plasma tyrosine levels were noted (Figure 25).

A comparison of the phenylalanine levels noted at this large dose of ASPARTAME with those noted in various clinical situations is shown in Table XXIV. Normal fasting levels are about 6 μ moles/dl, with postprandial levels ranging at about 12 ± 3 μ moles/dl. In children with classical phenylketonuria, phenylalanine levels vary between 180-600 μ moles/dl (30-100 mg%). A number of children have been identified whose phenylalanine levels range from 60-120 μ moles/dl (10-20 mg%), some of whom are not mentally retarded. Children with "benign" hyper-

phenylalaninemia have plasma phenylalanine levels ranging from 24-60 μ moles/dl (4-10 mg%) continually with no apparent ill effects. The present data indicate no hazard from the phenylalanine content of ASPARTAME at the level tested.

Erythrocyte Amino Acid Levels: Erythrocyte levels were similar to those noted in normal subjects. No change in erythrocyte aspartate levels were noted (Figure 26). Erythrocyte phenylalanine levels did increase, but to a lesser extent than that noted in plasma (Figure 25).

Summary

Aspartate levels are not affected by ASPARTAME ingestion at 34 mg/kg. Plasma phenylalanine levels are slightly higher in the PKU heterozygote than in the normal subject, but the level is still well below that which would present any hazard. Normal postprandial phenylalanine levels are 12 ± 3 μ moles/dl (27,28), and the levels obtained are close to these values.

GENERAL SUMMARY OF HUMAN DATA ON EFFECTS OF ASPARTAME
LOADING AT 34, 50, 100, 150 AND 200 MG PER KG
IN NORMAL VOLUNTEERS

The potential toxicity of ASPARTAME centers upon its effect on the blood levels of its constituent components: aspartate, phenylalanine and methanol. Each of these components may exert toxic effects, although species and age susceptibility vary.

I. Aspartate:

There is no doubt that the dicarboxylic amino acids will produce neuronal necrosis in the infant mouse when given in large doses. The ability of the dicarboxylic amino acids to produce neuronal necrosis in the neonatal primate is highly controversial. Although Olney and his colleagues have reported neuronal necrosis after glutamate administration to the neonatal primate (4,5), other investigators have been unable to produce the lesion in the primate with glutamate (6-11). This failure occurs despite demonstration that enormous elevations in blood glutamate levels occurred in the neonatal animals studied (10).

In the most susceptible species, the neonatal mouse, we have shown that plasma glutamate plus aspartate levels must reach 60-70 μ moles/dl before the first signs of neuronal necrosis are noted (13). In the infant monkey, plasma glutamate plus aspartate levels up to 500 μ moles/dl

did not result in neuronal necrosis (10).

Experimental Data: We have undertaken studies in which ASPARTAME, dissolved in orange juice, was administered to normal volunteers at 34, 50, 100, 150 and 200 mg/kg. Plasma and red cell levels of all amino acids were measured with time to determine if potentially toxic levels were attained. At 34 and 50 mg/kg load levels, essentially no change was noted in plasma or red cell aspartate levels. Mean plasma aspartate levels increased slightly from 0.20 $\mu\text{m}/\text{dl}$ to about 0.35 $\mu\text{moles}/\text{dl}$, but the changes were not statistically significant. At higher dose levels of ASPARTAME, slightly larger changes in plasma aspartate levels were noted (Figure 20). At 100 mg/kg (solution) aspartate levels increased to about 0.43 $\mu\text{moles}/\text{dl}$, and at dose levels of 150 to 200 mg/kg body weight, mean plasma aspartate levels reached 0.8 to 1.0 $\mu\text{moles}/\text{dl}$. All of these levels are below normal postprandial plasma aspartate levels in young infants fed conventional infant formulas. Plasma aspartate levels may reach 2 to 4 $\mu\text{moles}/\text{dl}$ in such infants (28). Even the levels attained at 150 to 200 mg/kg ASPARTAME are far below those required (60 to 70 $\mu\text{moles}/\text{dl}$) for the production of a lesion in the acutely sensitive neonatal mouse (13).

At ASPARTAME loading of 100 mg/kg, the effects of administration as a solution or slurry were compared. Greater elevations in plasma aspartate levels were noted when ASPARTAME was administered as a slurry (Figure 18). When ASPARTAME is administered as a slurry, considerable variation in gastric emptying occurs. This results in large variations in the absorption curves. Of the six subjects studied with ASPARTAME slurry at 100 mg/kg, two exhibited rapid gastric emptying with peak levels reached at about 45 minutes, two exhibited curves similar to subjects given 100 mg/kg in solution, and two had delayed gastric emptying with peak levels being reached much later. In those subjects with rapid absorption, plasma aspartate levels reached 4 to 6 μ moles/dl (Figure 18). This is reflected in the slightly increased aspartate levels noted after administration of ASPARTAME as a slurry (Figure 18). It would be expected that higher loads (200 mg/kg) administered as a slurry would produce similar variations in such individuals, and that levels of 8-12 μ moles/dl might be attained.

Glutamate and aspartate have effects upon each other's metabolism. Our studies of glutamate metabolism in man have shown that glutamate loads produce a rise both in plasma glutamate and aspartate (32). Similar effects

were noted in our studies of ASPARTAME. ASPARTAME administration at all levels studied produced a very small increase in plasma glutamate levels. Plasma concentrations increased from approximately 3.8 μ moles/dl at baseline to peak values of about 5.5 to 7 μ moles/dl (Figure 27). This small increase was not proportional to increasing ASPARTAME loads.

Studies from other laboratories have demonstrated that the dicarboxylic amino acids may be carried by the red cell to a greater extent than plasma (24-26). In such situations increased glutamate levels are noted in the red cell but not in the plasma. No changes in red cell glutamate or aspartate levels are noted at any level, as shown in Figure 23 for individuals given ASPARTAME at 150 mg/kg. Similar results were obtained at 200 mg/kg.

Summary

Aspartate levels are not significantly increased in the blood after ASPARTAME loading.

II. Phenylalanine:

A genetic disorder called phenylketonuria results from either the absence of or the presence of an inactive enzyme(s) required for the conversion of phenylalanine to tyrosine. Other children have a decreased ability to

metabolize phenylalanine because of decreased quantities of a transaminase enzyme. In the children with "classical phenylketonuria", plasma levels of phenylalanine exceed 180 μ moles/dl (30 mg%) and range from 30-100 mg% (14). These levels, if sustained, are associated with mental retardation. Lower phenylalanine levels (30-60 μ moles/dl or 5 to 10 mg%) noted in the variant forms of hyperphenylalaninemia are not associated with mental retardation.

Data Obtained: Plasma and red cell phenylalanine levels were followed with time in normal adult volunteers administered ASPARTAME dissolved in orange juice at 34, 50, 100, 150 and 200 mg/kg body weight in an attempt to determine whether potentially toxic phenylalanine levels would be obtained at acute or chronic abuse levels.

A dose-related response of plasma phenylalanine levels to increasing levels of ASPARTAME was noted (Figure 21). In the absence of ASPARTAME, phenylalanine levels did not increase in the time period studied. As expected, plasma tyrosine levels also increased (Figure 22). The mean peak levels of phenylalanine and tyrosine observed are listed below:

APM DOSE (mg/kg)	PHENYLALANINE (μ moles/dl)	TYROSINE (μ moles/dl)
0	6	5.5
34	11	6.5
50	15	8.0
100	20-26	9.5-10.8
150	35	11.0
200	49	13.6

At 34 mg/kg body weight, phenylalanine levels approached the levels noted in infants (27,28) after a meal (12 ± 3 μ moles/dl). At higher dose levels, ASPARTAME loads produced higher and broader curves (Figure 21).

At the highest dose studied (200 mg/kg), mean plasma phenylalanine levels were about 49 μ moles/dl (8 mg%). Although this is a considerable phenylalanine concentration, this level is well within the range permitted in phenylketonuric subjects during diet therapy (16). Considerable variation in peak phenylalanine levels were noted at the 200 mg/kg level, with peak values ranging from 30 to 70 μ moles/dl.

As mentioned in the discussion of aspartate results, the physical form in which ASPARTAME is administered affects absorption and peak levels. This is readily demonstrated from plasma phenylalanine levels obtained after ASPARTAME loading at 100 mg/kg in which the effects of slurry vs. solution were tested (Figure 19). Note three distinct groups of absorption patterns. However, mean phenylalanine levels for the slurry group as a whole were similar to those noted when the subjects received ASPARTAME in solution (Figure 21).

Red cell levels of phenylalanine and tyrosine were similar to those found in plasma. Figure 24 shows representative data obtained at 150 mg/kg ASPAFTAME.

Maternal Phenylketonuria: In children with classical phenylketonuria, elevated phenylalanine levels are associated with mental retardation. In such children phenylalanine levels vary between 30-100 mg% or 180-600 μ moles/dl. However, a number of children have been identified whose phenylalanine levels range from 10-20 mg% or 60-120 μ moles/dl who are not normally mentally retarded.

The exact cause(s) of the mental retardation in children with PKU is not clear, but may result from the effects of metabolites of phenylalanine such as phenylpyruvate on metabolism.

Although some investigators feel that there is no benign persistent hyperphenylalaninemia and recommend dietary therapy for any patient with a phenylalanine level ranging from 10-20 mg% (60-120 μ moles/dl), most investigators do not treat patients with phenylalanine levels below 10 mg% (60 μ moles/dl) if excess phenylalanine metabolites are not present (14-16).

In the pregnant female with PKU, the large elevations in maternal phenylalanine levels are amplified by the placenta, concentrating the levels on the fetal side. The placenta maintains a gradient of most amino acids of about 2:1 toward the fetal circulation. Thus, maternal phenylalanine levels of 30 mg% (180 μ moles/dl) will result in fetal levels of 50-65 mg%. In view of these findings, it is not surprising that normal or heterozygote children born to such mothers are mentally retarded.

As a result of these findings a few attempts have been made to control the mother's phenylalanine levels during pregnancy in an attempt to spare the fetus.

At the present time, apparently normal children have been born to phenylketonuric mothers whose blood phenylalanine levels were maintained between 3-8 mg% (16-48 μ moles/dl) during pregnancy. This has led to the suggestion that mental retardation may be prevented by maintaining maternal phenylalanine levels between 3-8 mg% (16-48 μ moles/dl). These data are in line with recent studies indicating that PKU children treated with diets maintaining phenylalanine levels between 5-9.9 mg% (30-60 μ moles/dl) were not significantly different from children in whom phenyl-

alanine levels were maintained between 1-4 mg% (6-24 μ moles/dl). The data suggest that long-term phenylalanine levels below 10 mg% (60 μ moles/dl) are not detrimental under most circumstances (14-16).

These data can be applied to our present knowledge of ASPARTAME. Under acute abuse loads of 200 mg/kg, mean peak plasma phenylalanine levels are 8 mg% (49 μ moles/dl) and ranged from 5-12 mg% or 31-74 μ moles/dl over the course of a few hours. Since the developing infant appears to tolerate continued exposure to phenylalanine levels in this range, it would appear that little danger, if any, is involved even upon acute abuse ingestion with its relatively short exposure time.

Summary

ASPARTAME administered at 34 mg/kg increased plasma phenylalanine levels only slightly, from fasting to postprandial levels. Doses of ASPARTAME which might be ingested under acute abuse conditions (200 mg/kg) produced a mean phenylalanine level of about 49 μ moles/dl (8 mg%), with a range of 31-74 μ moles/dl. No toxic effects would be expected at this level.

METHANOL LEVELS IN BLOOD OF SUBJECTS ADMINISTERED ASPARTAME

Introduction

ASPARTAME is a methyl ester. As such, methanol is released upon digestion and is absorbed. Plasma methanol levels have been measured in normal subjects administered ASPARTAME at doses of 100, 150, and 200 mg/kg. In addition, some methanol data are available from subjects administered ASPARTAME at 34 and 50 mg/kg body weight. Since the toxic effects of methanol appear to be due to formate accumulation (33-41), formate levels were measured in the blood and urine of subjects administered ASPARTAME at 200 mg/kg body weight.

Materials and Methods

Blood samples were prepared according to methods described by Makar, et al. (42) and Baker, et al. (43). Methanol was determined by the gas chromatographic method of Baker, et al. (43), and formate was determined by the enzymatic method of Makar, et al. (42).

Results

Blood methanol levels in the subjects studied are found in Table XXV. The results are displayed graphically in Figure 28. In summary, mean peak levels were as follows:

<u>ASPARTAME load</u>	<u>Mean Peak Methanol Levels</u>
mg/kg	mg%
100	1.27 ± 0.48
150	2.14 ± 0.35
200	2.58 ± 0.78

According to the studies of Tephly, et al. (33,35-41), the toxic effects of methanol ingestion appear to be due to formate accumulation. In studies of the primate, no acidosis is noted until formate levels reach 30 to 40 mg%. A blood methanol level of 200 to 300 mg% is present when the above levels of formate are reached. Thus, an approximate methanol-to-formate ratio of 8:1 is noted. From these data we may predict the following:

<u>Blood Methanol (mg%)</u>	<u>Blood Formate Predicted (mg%)</u>
1	0.125
2	0.25
4	0.5
8	1.0

Based on our experiments to date, we would expect acute abuse loads of 200 mg/kg ASPARTAME to produce maximal blood methanol levels of about 3-4 mg%. Formate levels of 0.5 mg% would be predicted. We have assayed for formate in the blood and urine of subjects receiving ASPARTAME at 200 mg/kg. No formate was detected. This was expected, however, since the limit of the assay is 1 mg%.

Summary

Recent studies have implicated formate as the toxic agent in methanol toxicity. McMartin, et al. (37) and Clay, et al. (34) have shown the importance of formate generation and accumulation in the development of metabolic acidosis in the monkey. Recent data from Tephly's group has shown that these conditions also result in the ocular lesion in the monkey (38). On the other hand, formate does not accumulate in the rat (37), and methanol poisoning as described for man does not occur in the rat or other small laboratory animal (44,45). This appears due to the greater ability of these animals to metabolize methanol. However, if these animals are made folate-deficient, methanol toxicity can be induced (39). In a personal communication (33), Dr. Tephly informs me that his group has now produced the ocular lesion in the primate by infusion of formate under conditions where the acidosis is controlled. Thus, it now seems clear that formate is the toxic agent involved in methanol poisoning.

The data from the present studies indicate little danger from the methanol produced from ASPARTAME ingestion at the loads studied. Even under abuse doses of 200 mg/kg, methanol levels were not elevated sufficiently to produce toxic symptoms. Formate appears to be the toxic agent

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in methanol poisoning with levels of 30-40 mg% required for toxicity. We failed to observe formate in either blood or urine at 200 mg/kg ASPARTAME loading.

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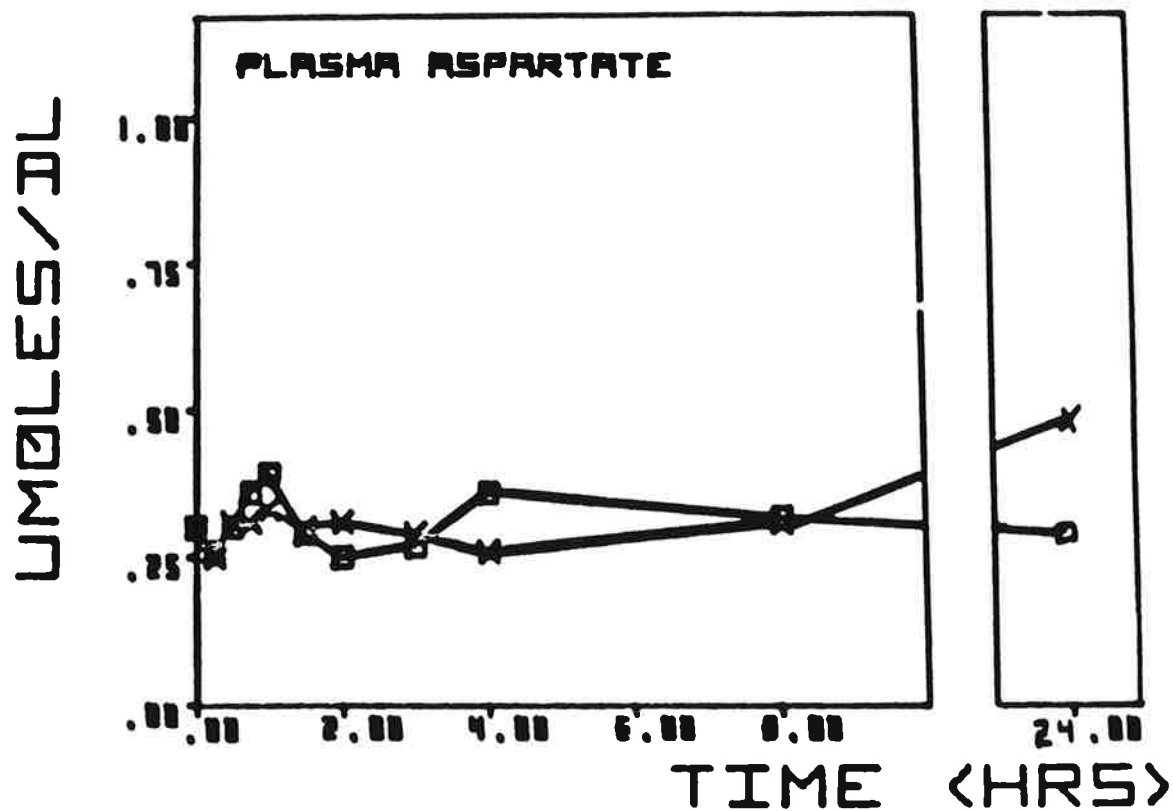


FIGURE 1: Plasma aspartate levels in normal adult volunteers administered 34 mg ASPARTAME (X) or 13 mg aspartate (□) per kg body weight.

Standard deviations are listed in the appended tables.

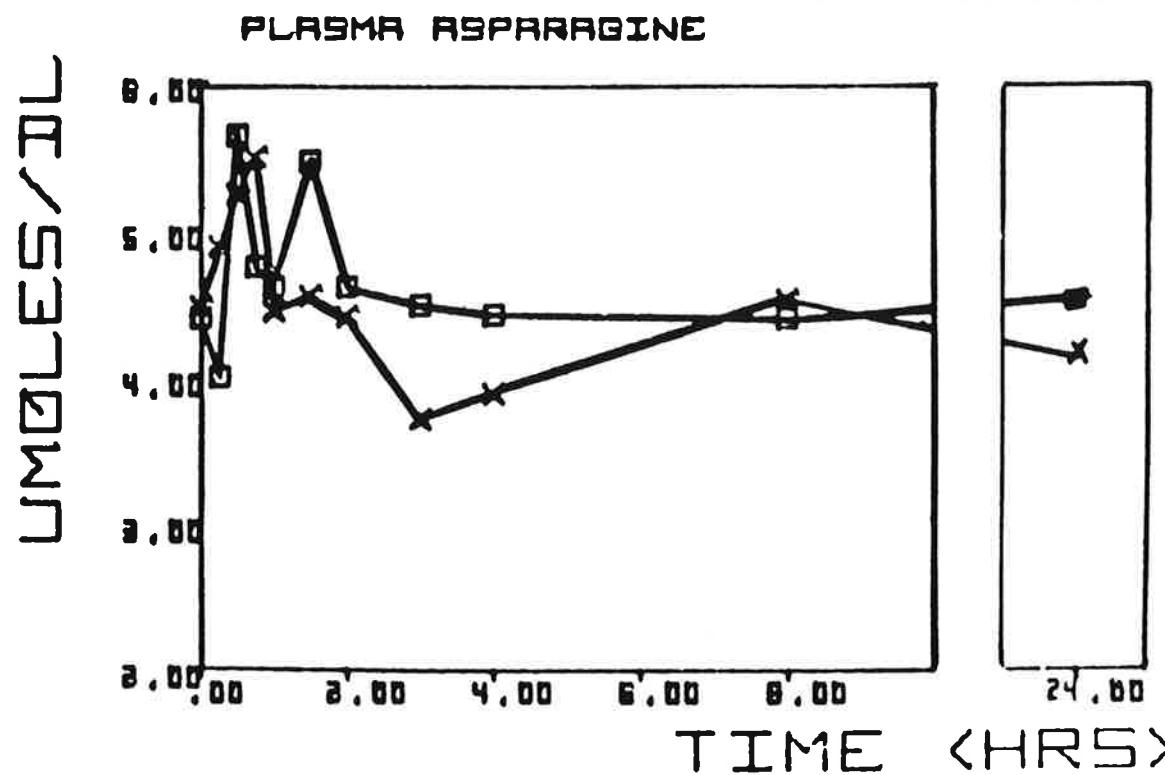
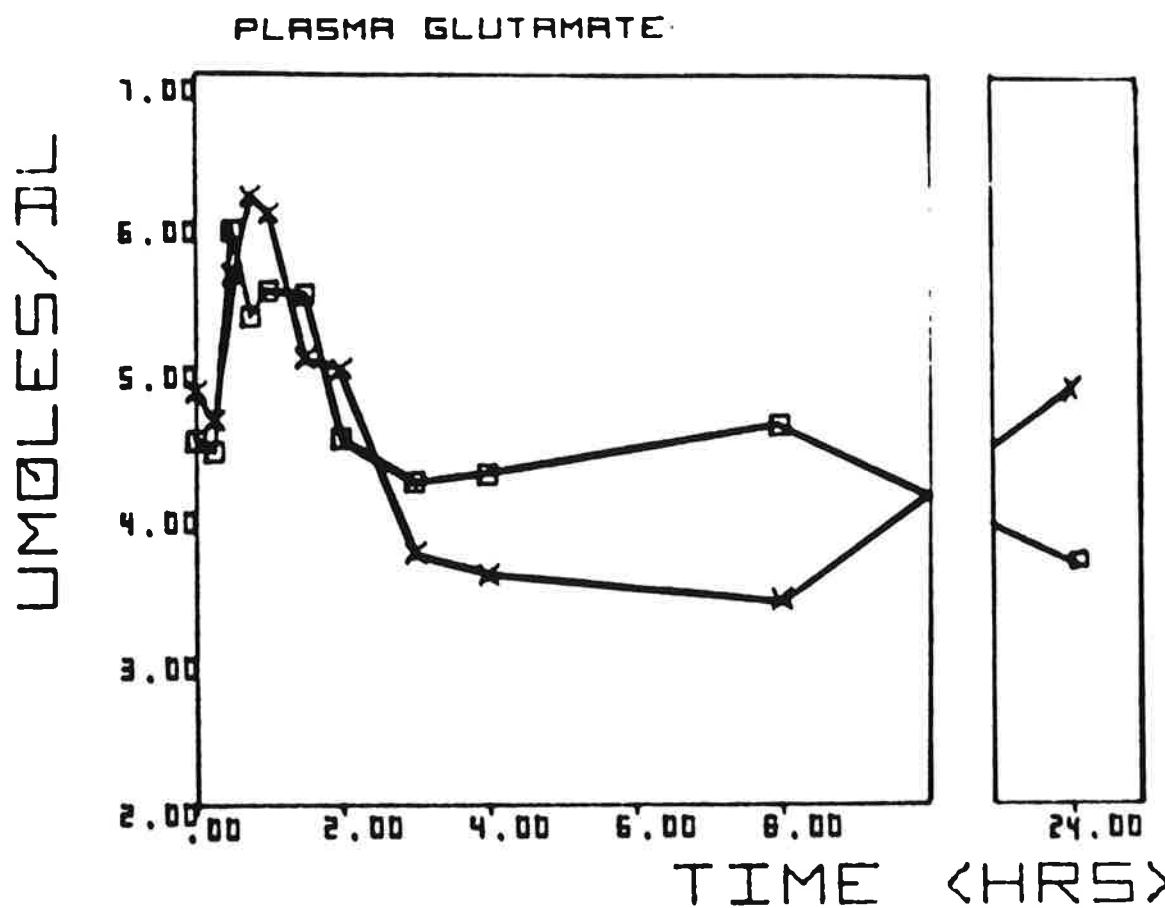


FIGURE 1 (continued): Plasma glutamate and asparagine levels in normal adult volunteers administered 34 mg ASPARTAME (X) or 13 mg ASPARTAME (□) per kg body weight.

Standard deviations are listed in the appended tables.

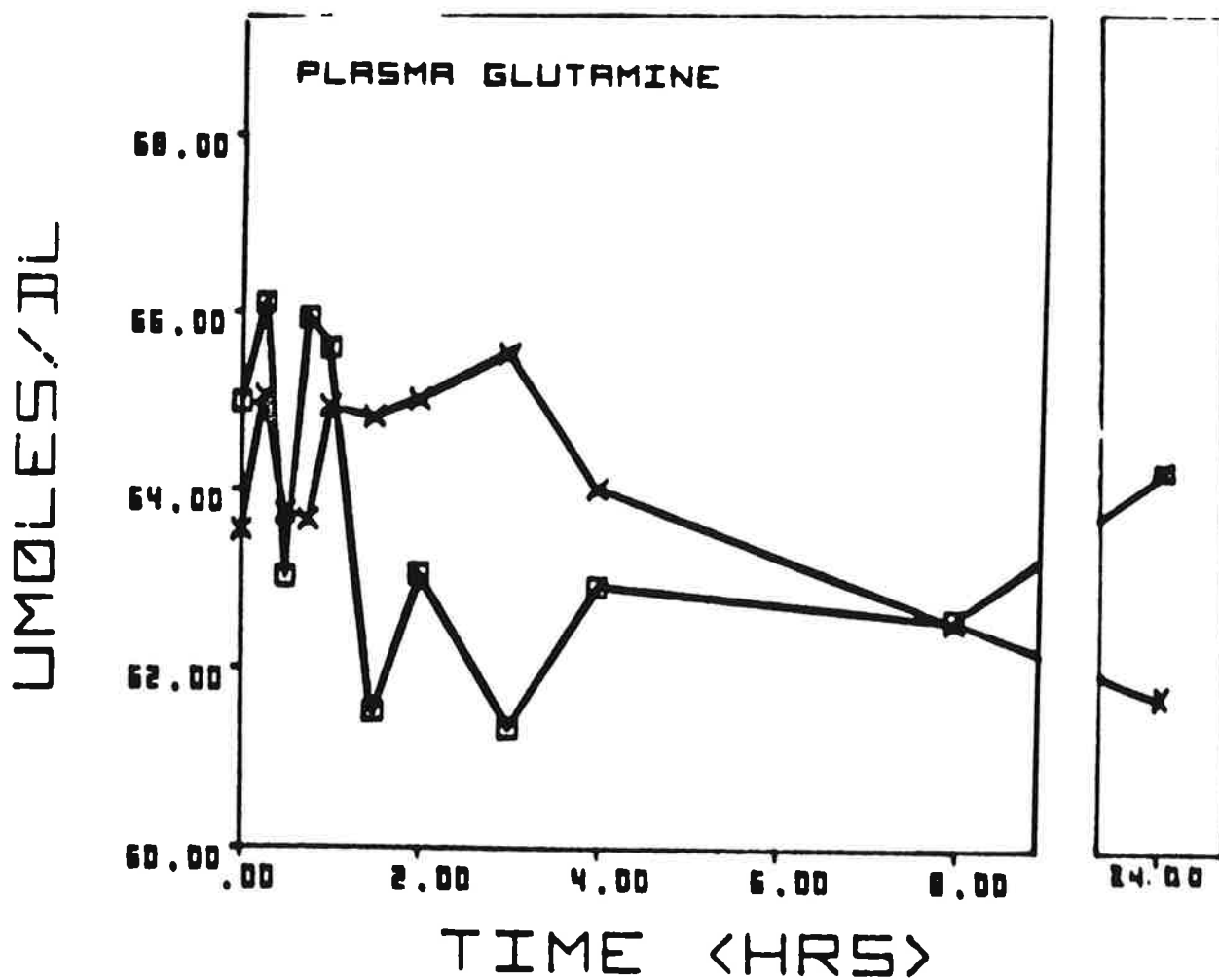


FIGURE 1 (continued): Plasma glutamine levels in normal adult volunteers administered 34 mg ASPARTAME (X) or 13 mg aspartate (□) per kg body weight.

Standard deviations are listed in the appended tables.

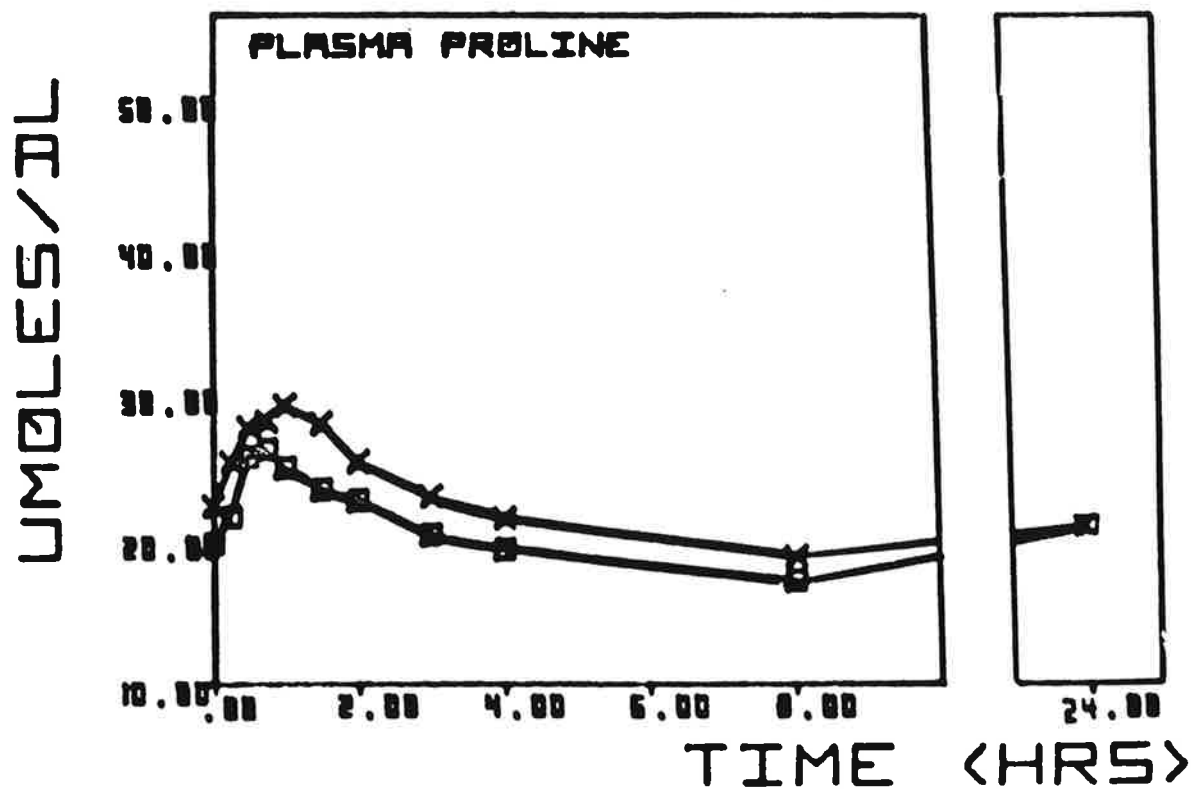
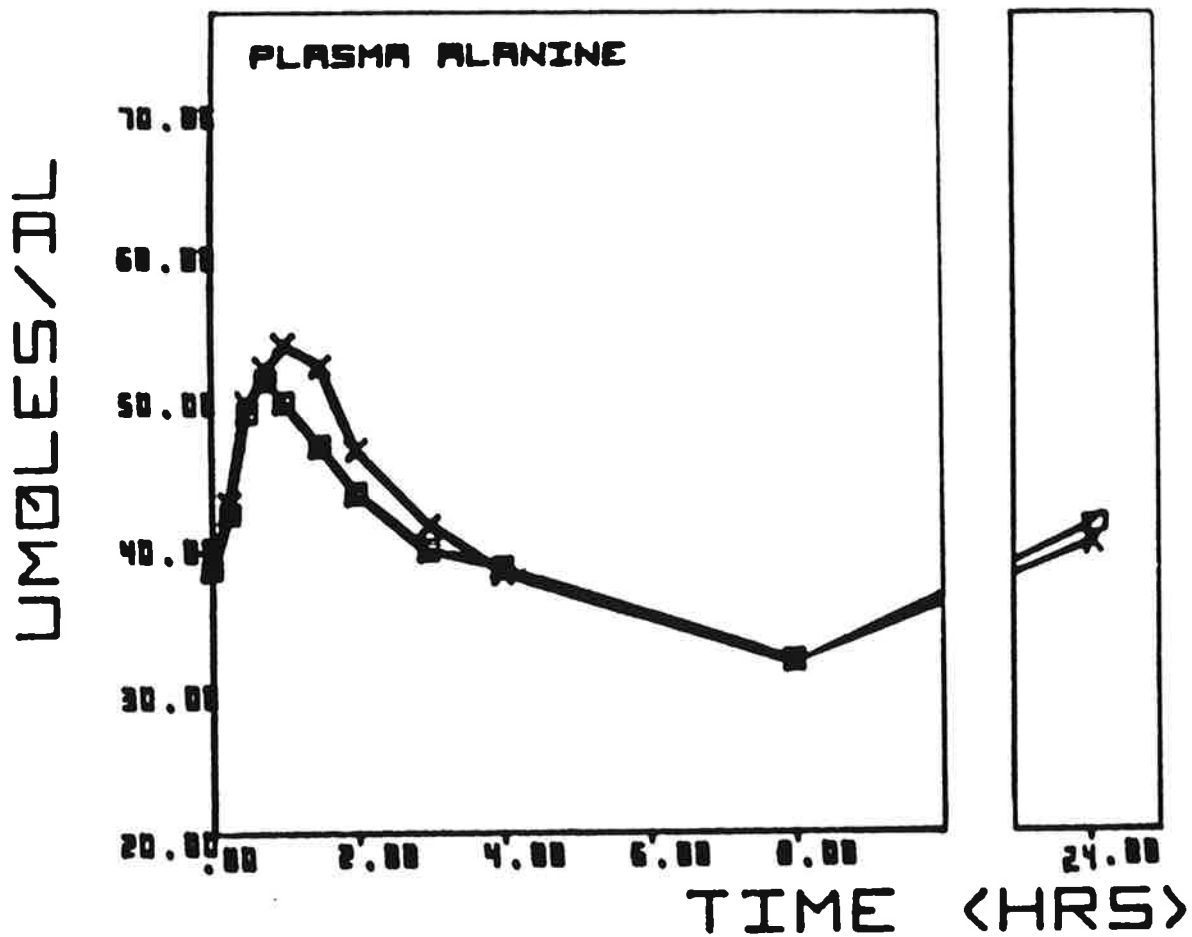


FIGURE 2: Plasma alanine and proline levels in normal adult volunteers administered 34 mg ASPARTAME (X) or 13 mg aspartate (□) per kg body weight.

Standard deviations are listed in the appended tables.

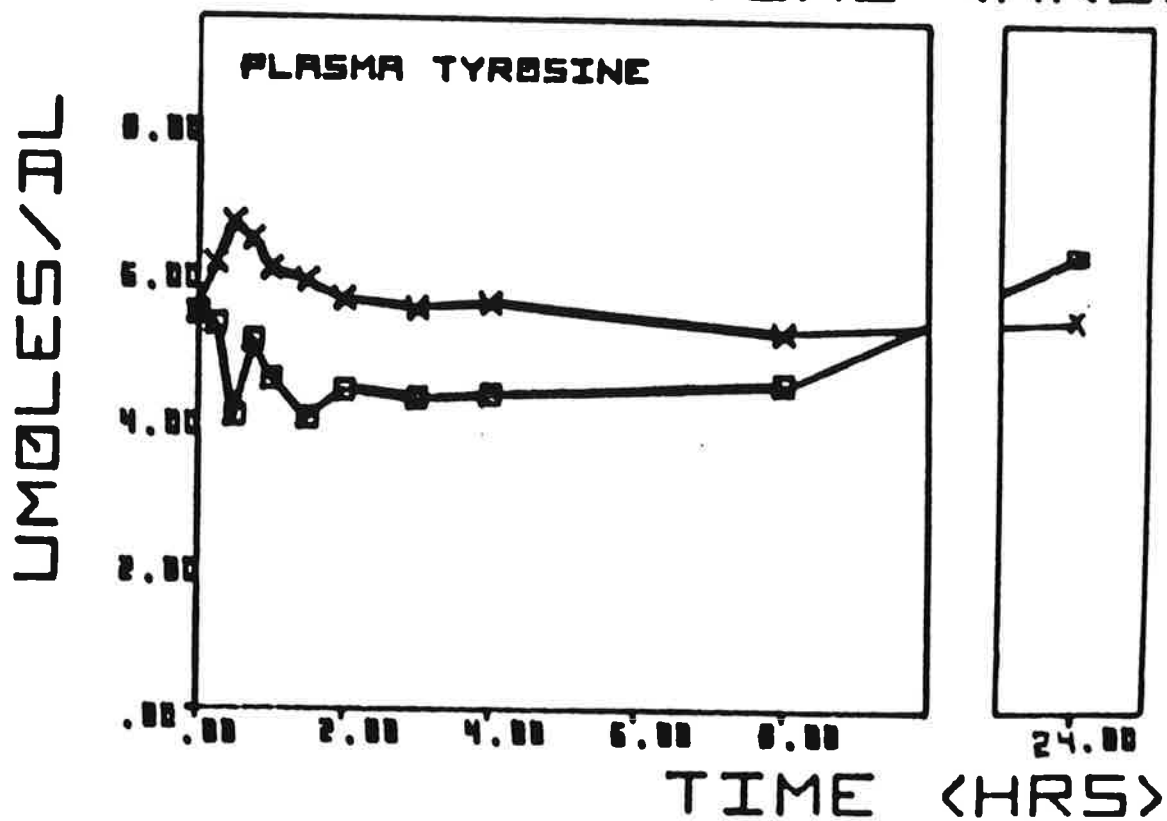
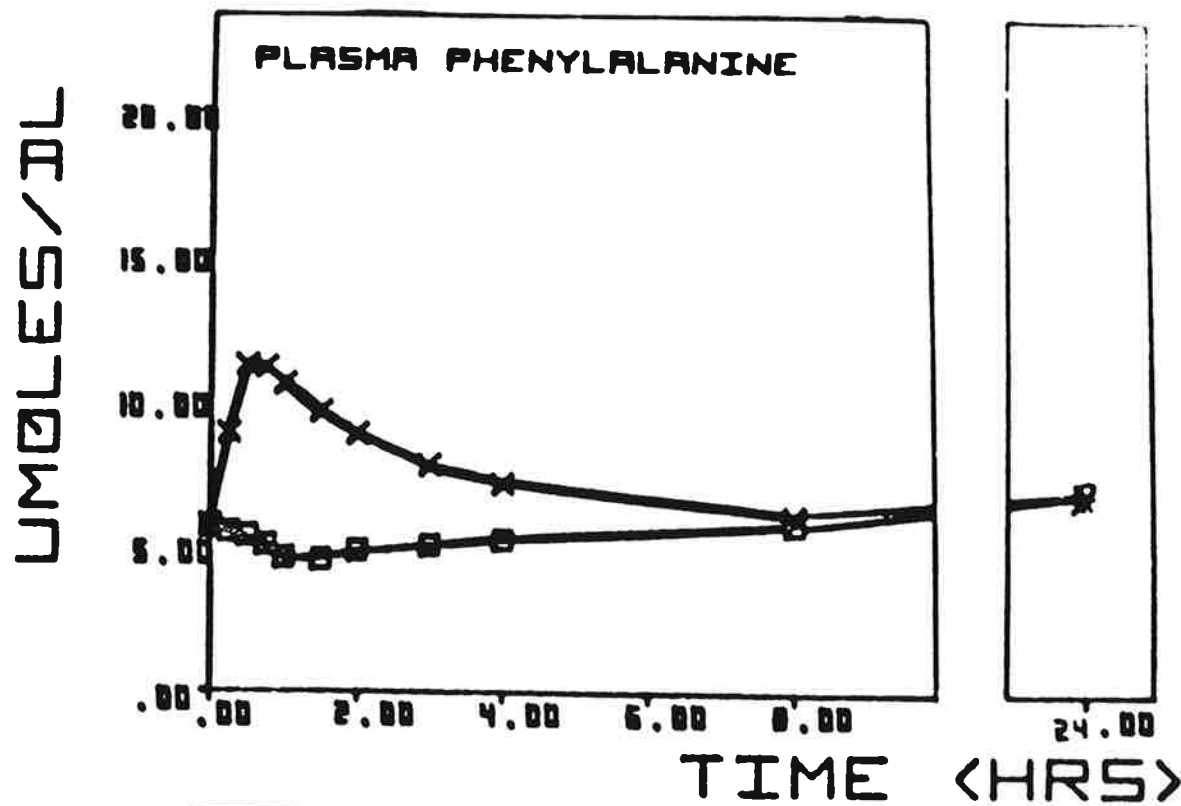


FIGURE 3: Plasma tyrosine and phenylalanine levels in normal volunteers administered 34 mg ASPARTAME (X) or 13 mg aspartate (□) per kg body weight.

Standard deviations are listed in the appended table.

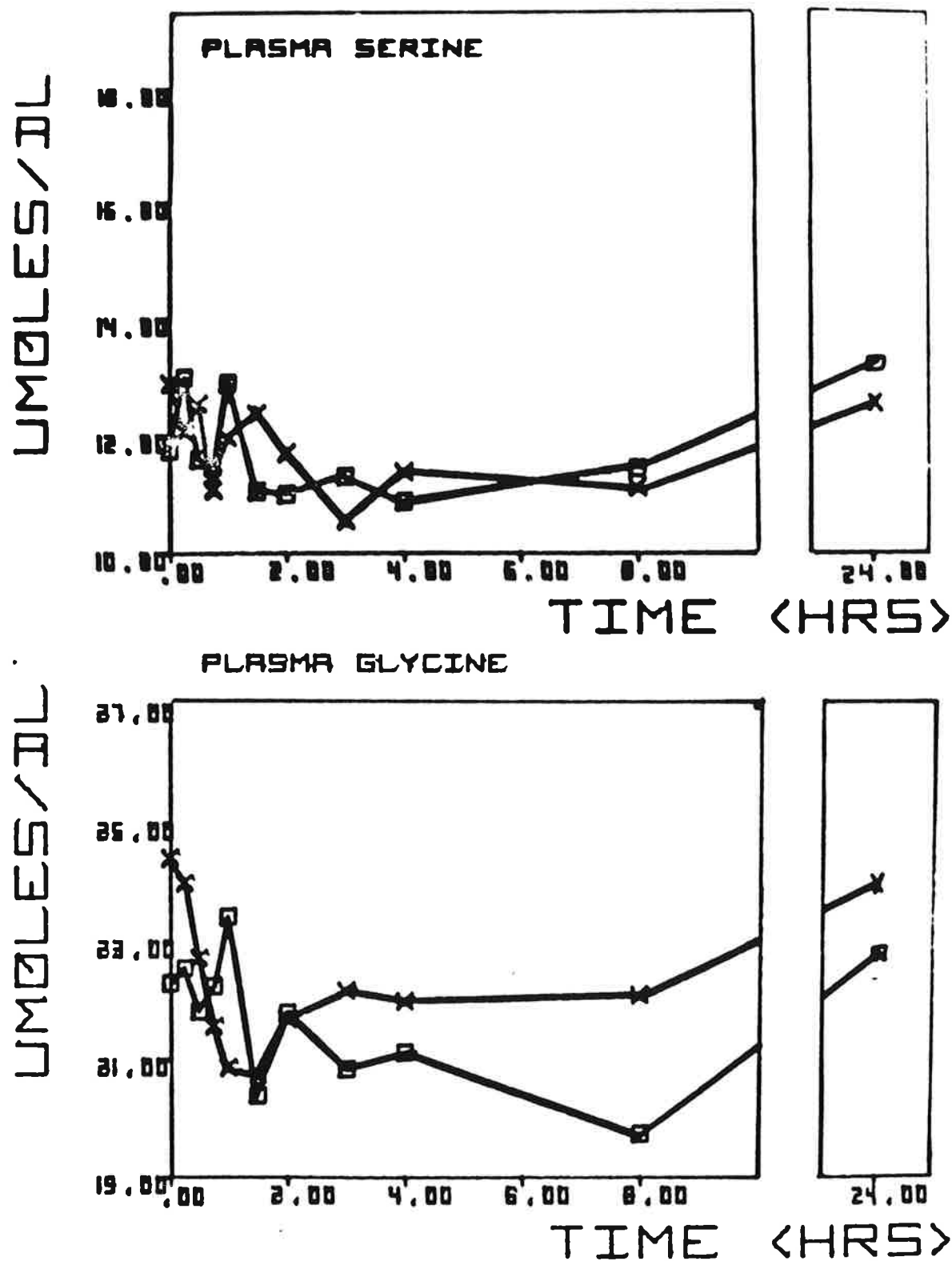


FIGURE 4: Plasma serine and glycine levels in normal adult volunteers administered 34 mg ASPARTAME (X) or 13 mg aspartate (□) per kg body weight.

Standard deviations are listed in the appended tables.

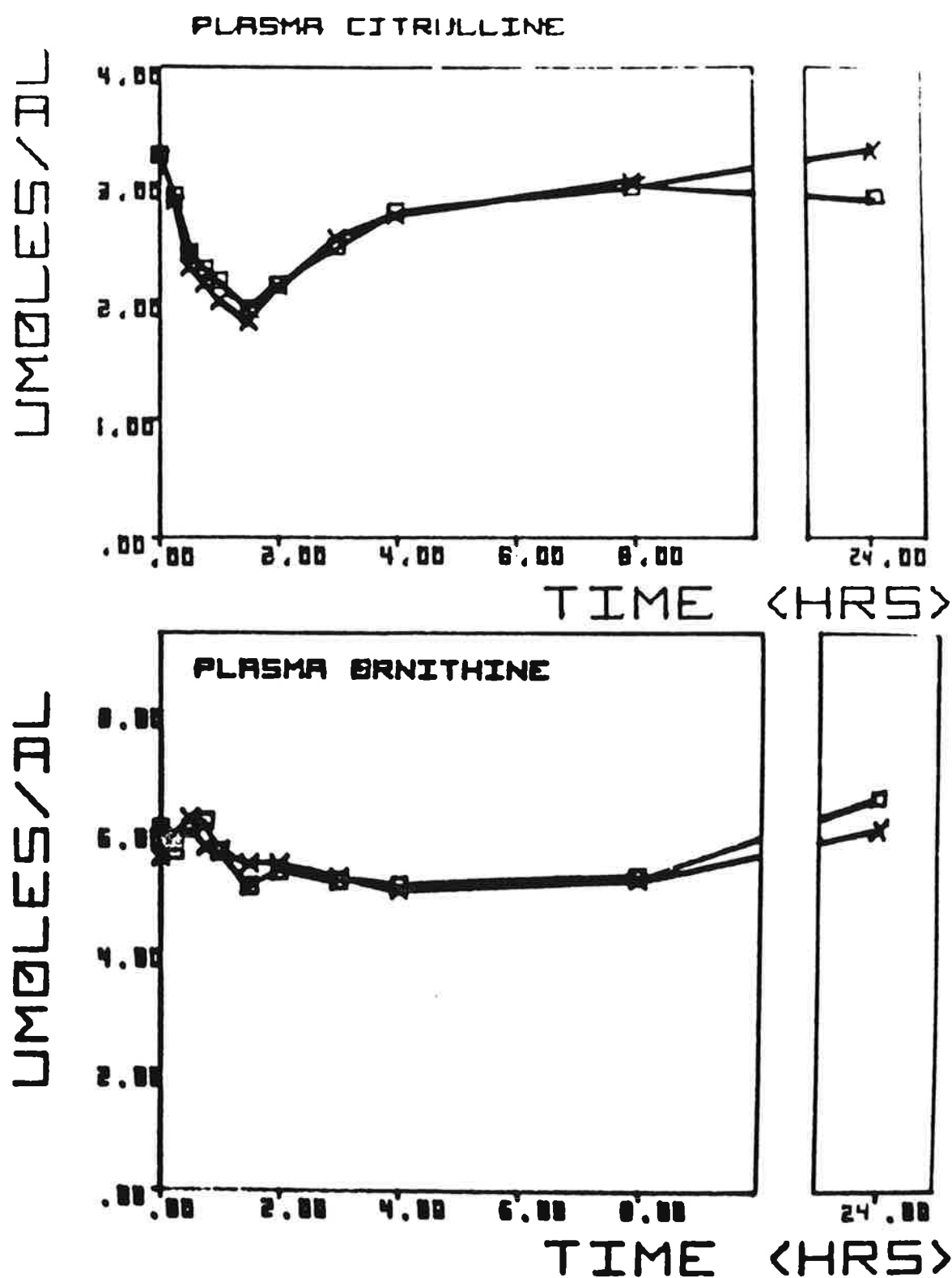


FIGURE 4 (continued): Plasma citrulline and ornithine levels in normal adult volunteers administered 34 mg ASPARTATE (X) or 13 mg aspartate (□) per kg body weight.

Standard deviations are listed in the appended tables.

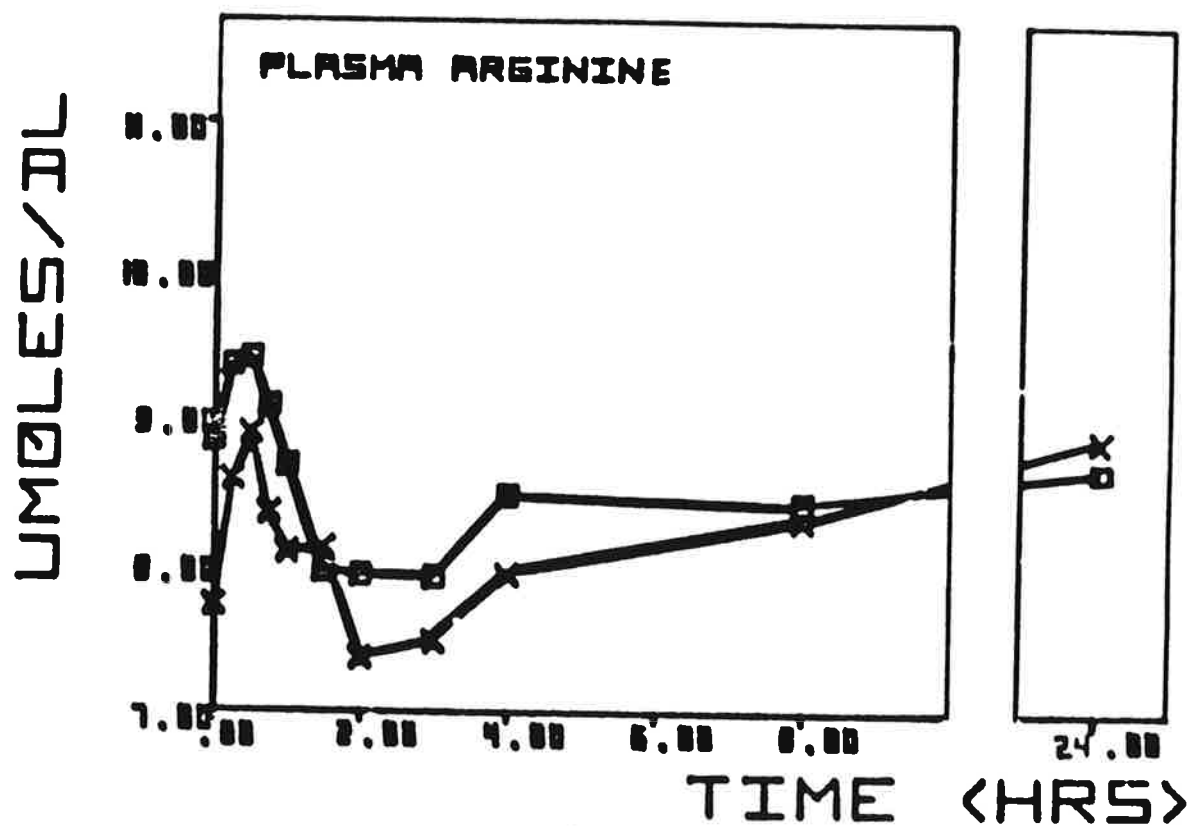


FIGURE 4 (continued): Plasma arginine levels in normal adult volunteers administered 34 mg ASPARTAME (X) or 13 mg aspartate (□) per kg body weight.

Standard deviations are listed in the appended tables.

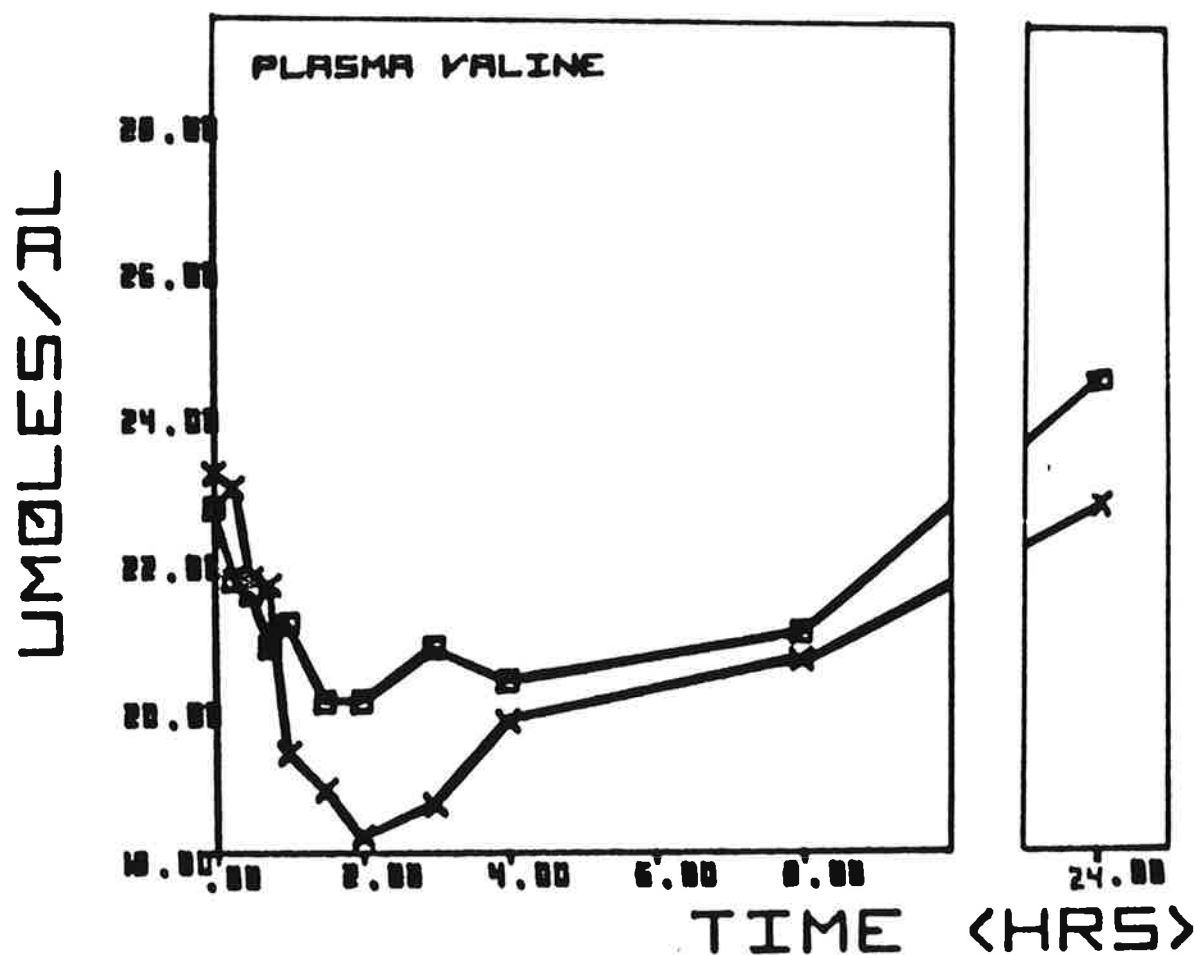


FIGURE 5: Plasma valine levels in normal adult volunteers administered 34 mg ASPARTAME (X) or 13 mg aspartate (□) per kg body weight.

Standard deviations are listed in the appended tables.

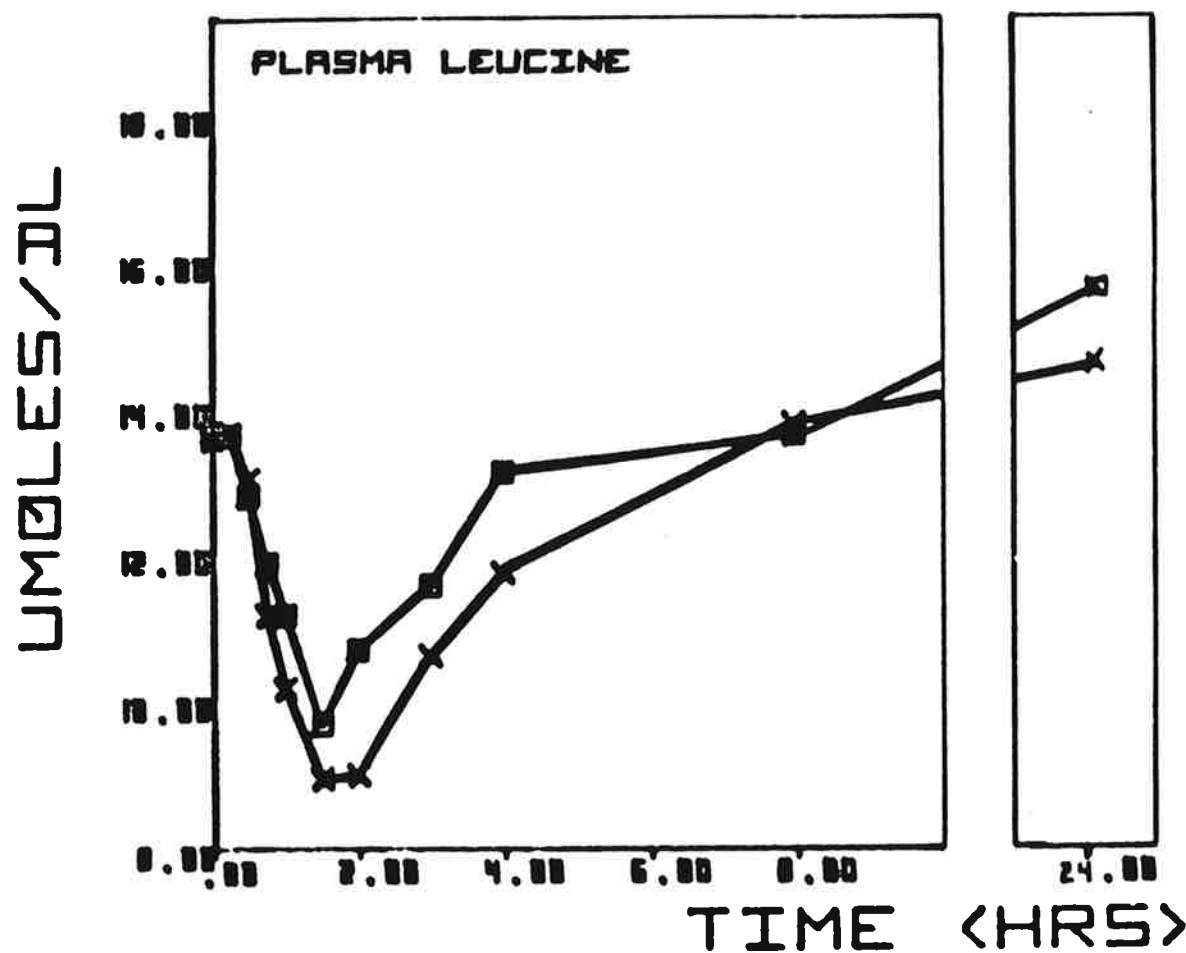


FIGURE 5 (continued): Plasma leucine levels in normal adult volunteers administered 34 mg ASPARTAME (X) or 13 mg aspartate (□) per kg body weight.

Standard deviations are listed in the appended tables.

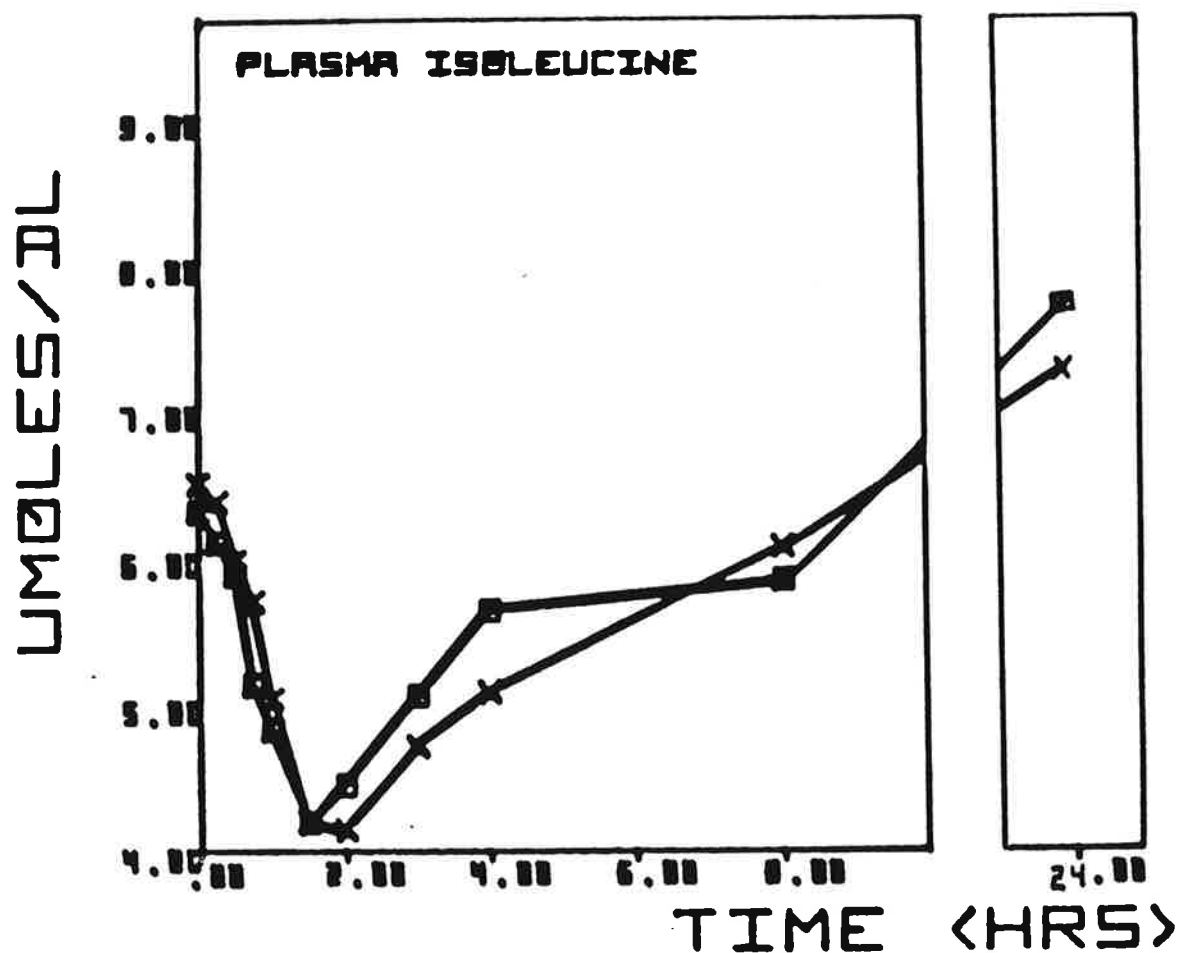


FIGURE 5 (continued): Plasma isoleucine levels in normal adult volunteers administered 34 mg ASPARTAME (X) or 13 mg aspartate (□) per kg body weight.

Standard deviations are listed in the appended tables.

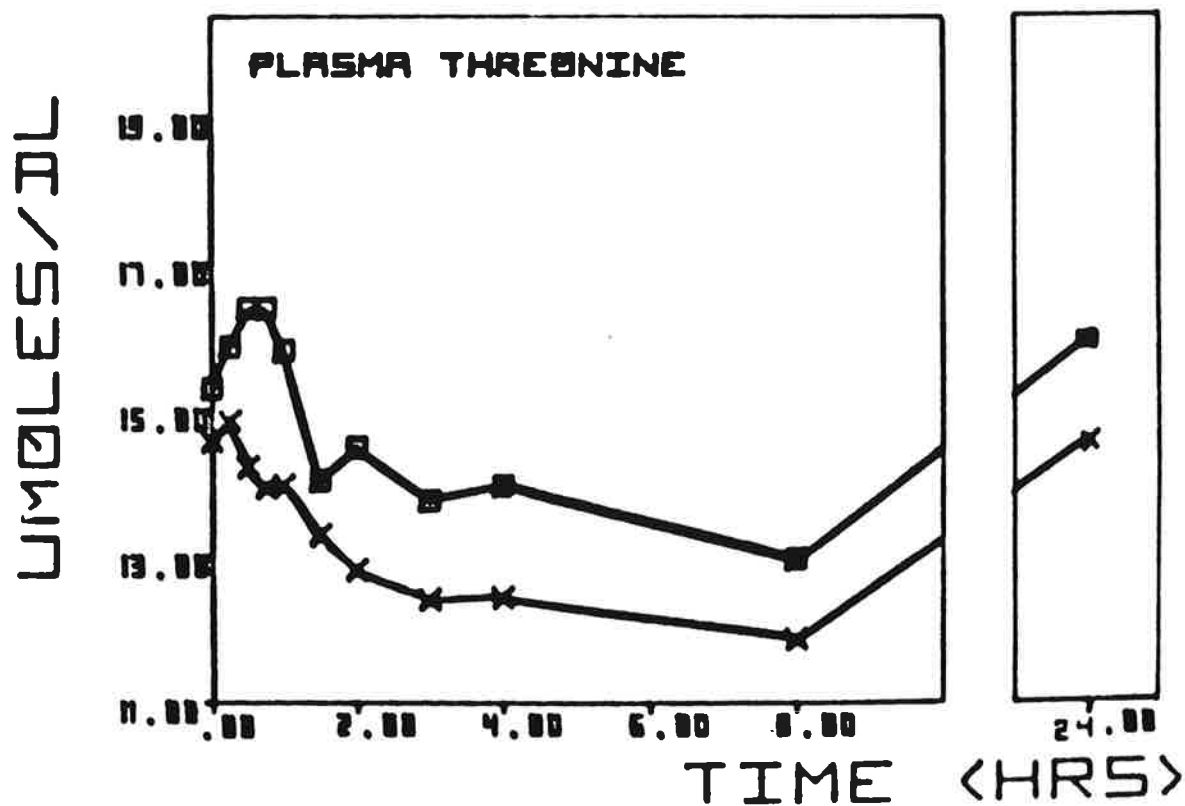
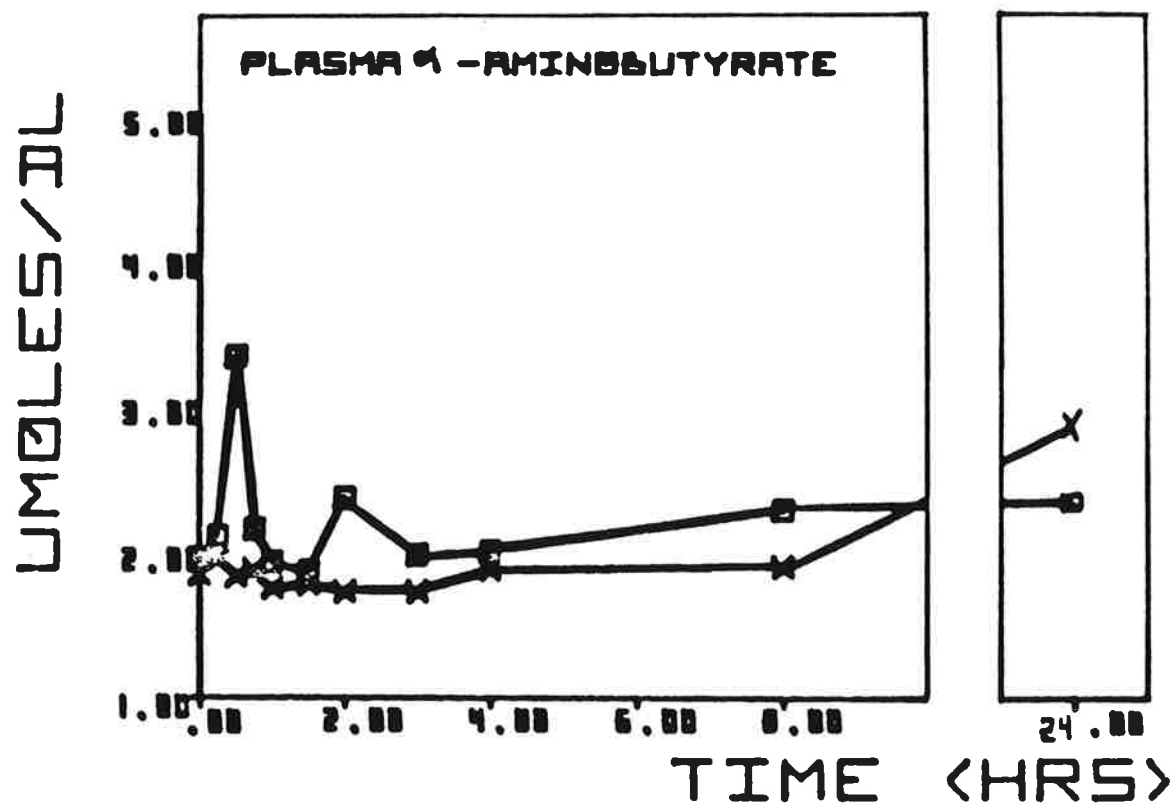


Figure 6: Plasma γ -aminobutyrate and threonine levels in rats with and without seizures administered 14 mg/kg of γ -aminobutyrate. \square = 14 mg/kg group; \times = control.

Values are means \pm SEM. * indicates significant difference from control.

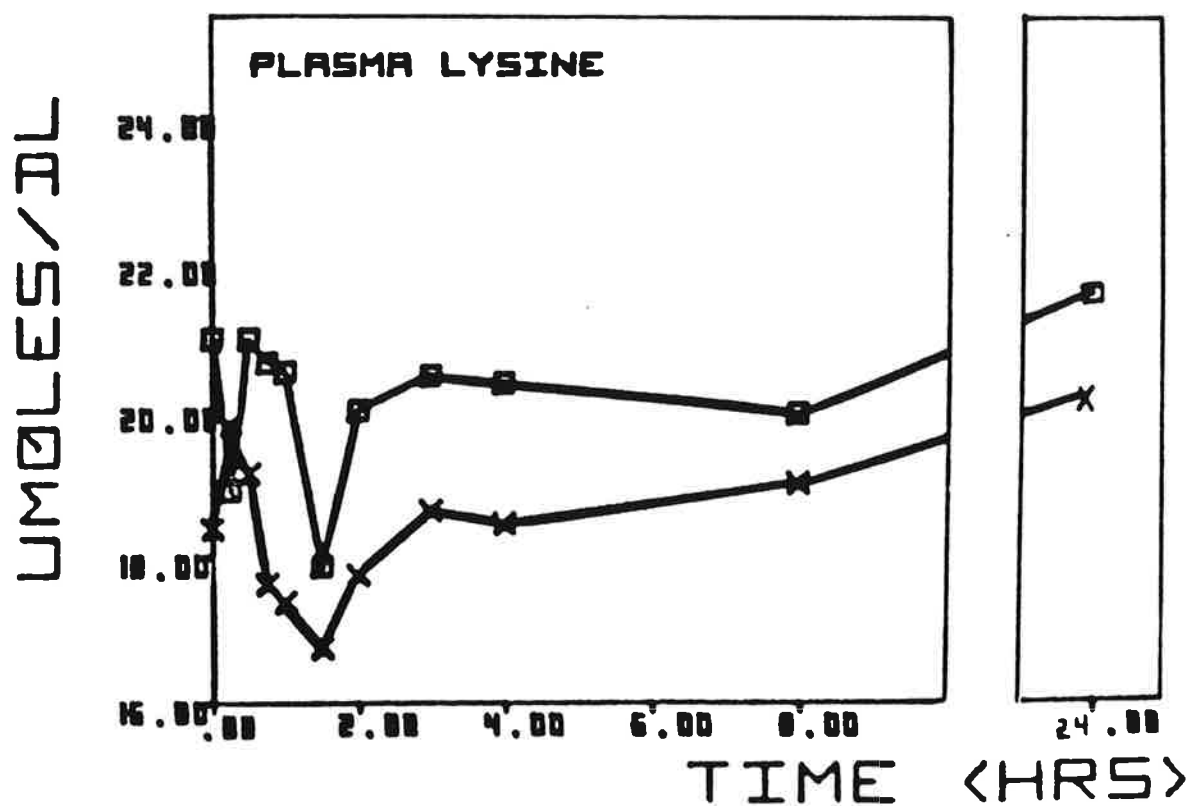
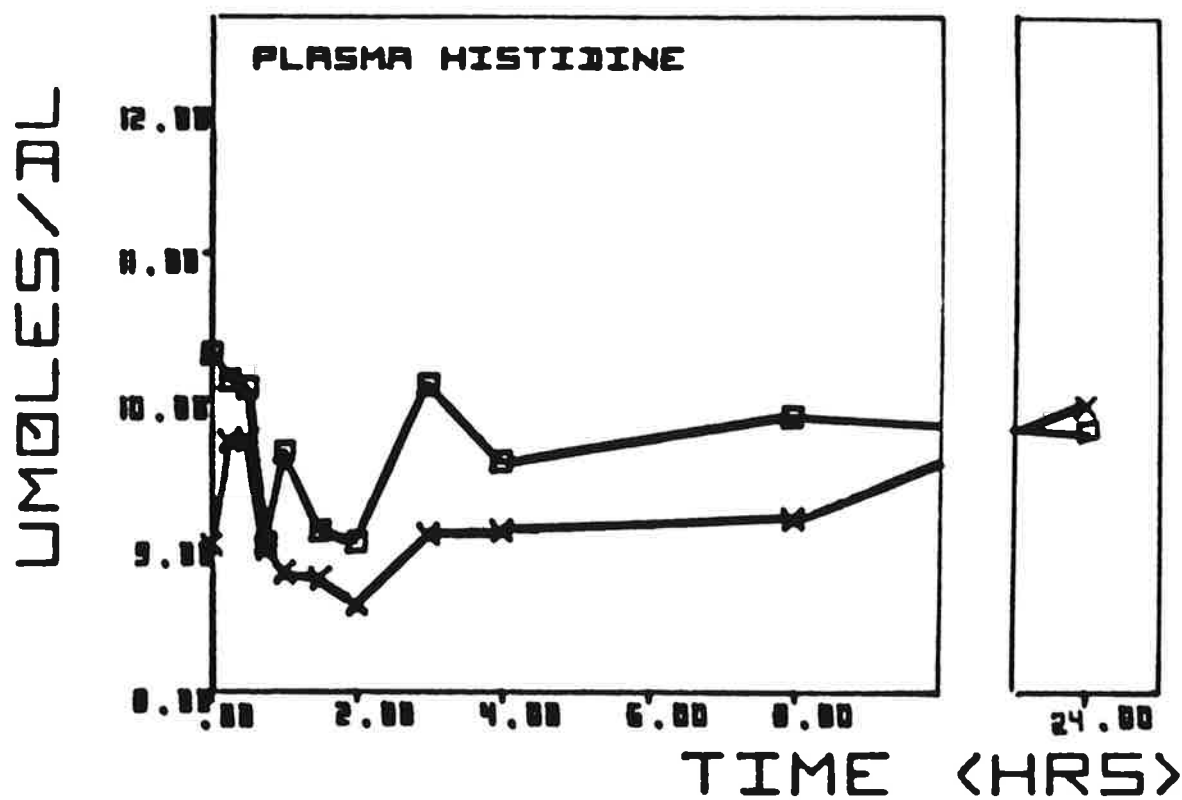


FIGURE 6 (continued): Plasma histidine and lysine levels in normal adult volunteers administered 14 mg aspartate (x) or 14 mg aspartate (□) per kg body weight.

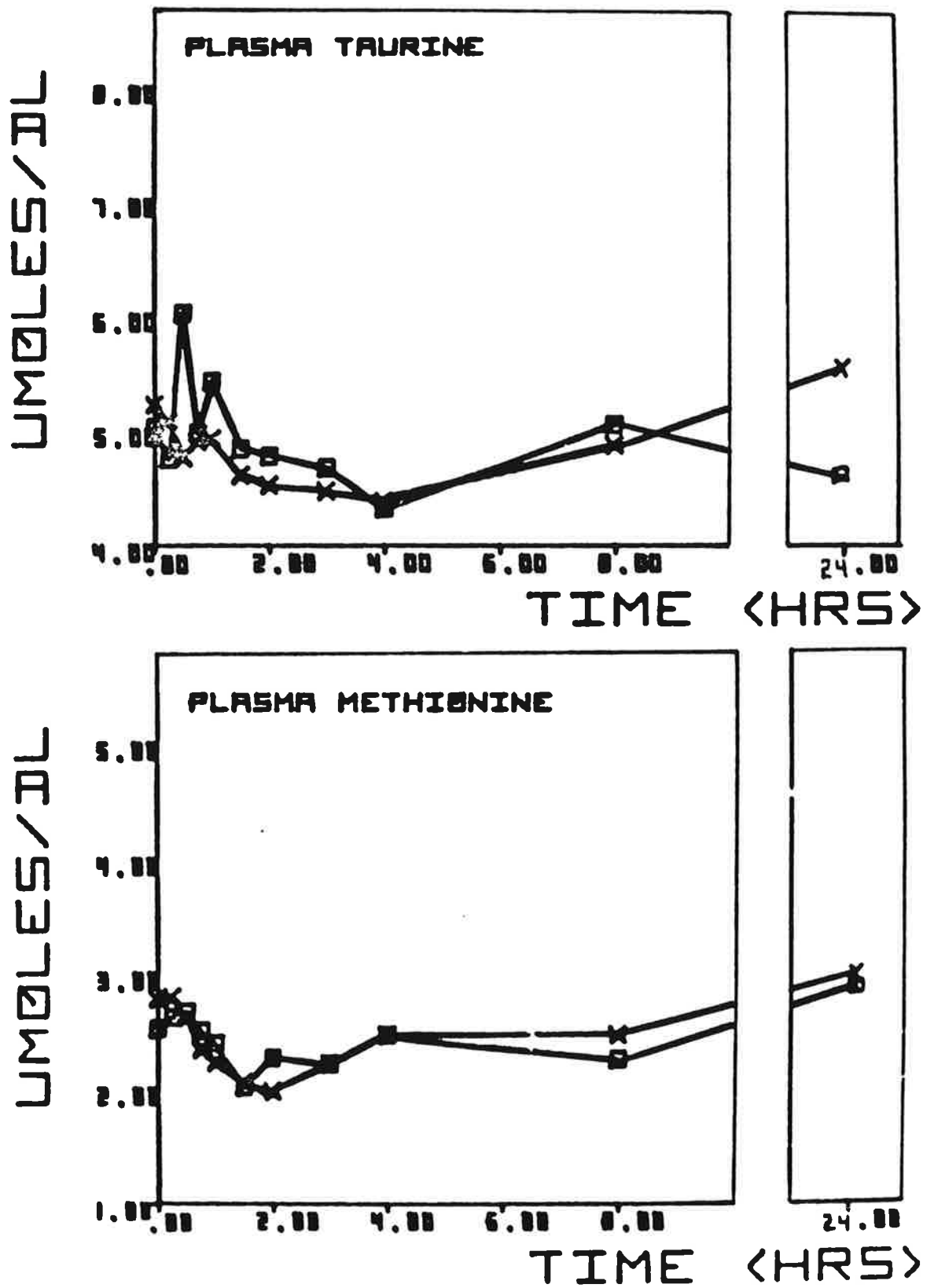


FIGURE 7: Plasma taurine and methionine levels in normal adult volunteers administered 34 mg ASPARTAME[®] (X) or 1 mg/kg body weight (□) per kg body weight.

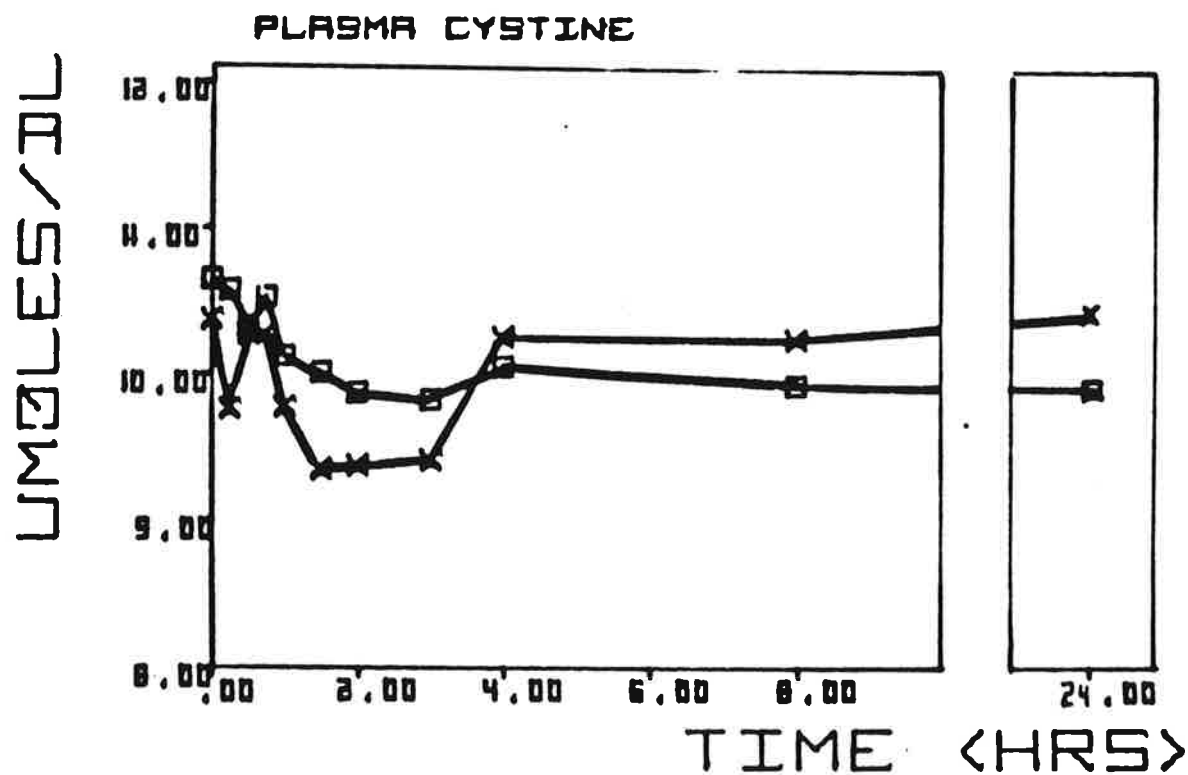


FIGURE 7 (continued): Plasma cystine levels in normal adult volunteers administered 34 mg ASPARTAME (X) or 13 mg aspartate (□) per kg body weight.

Standard deviations are listed in the appended tables.

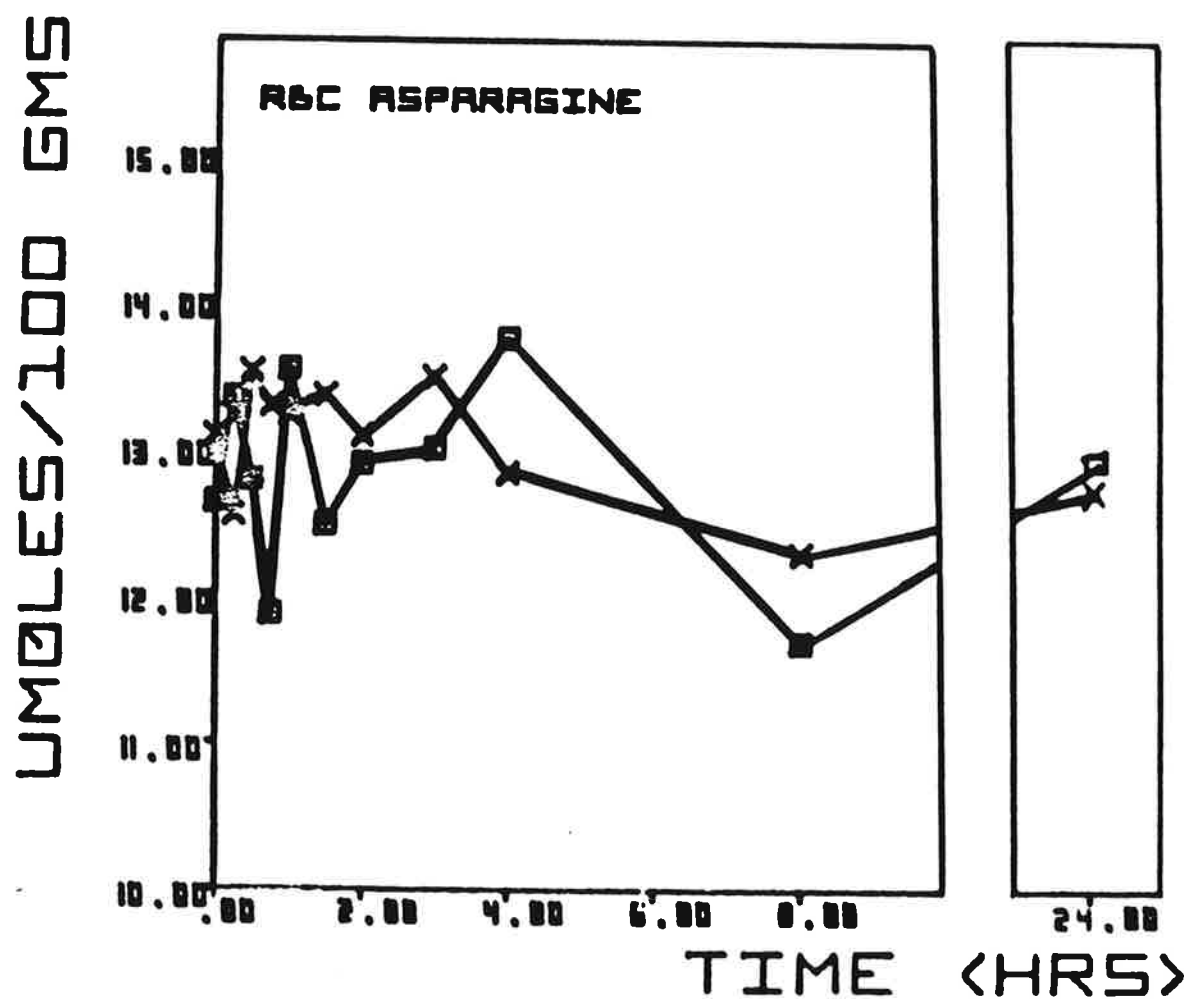


FIGURE 8: Erythrocyte asparagine levels in normal adult volunteers administered 34 mg ASPARTAME (X) or 13 mg aspartate (□) per kg body weight.

Standard deviations are listed in the appended tables.

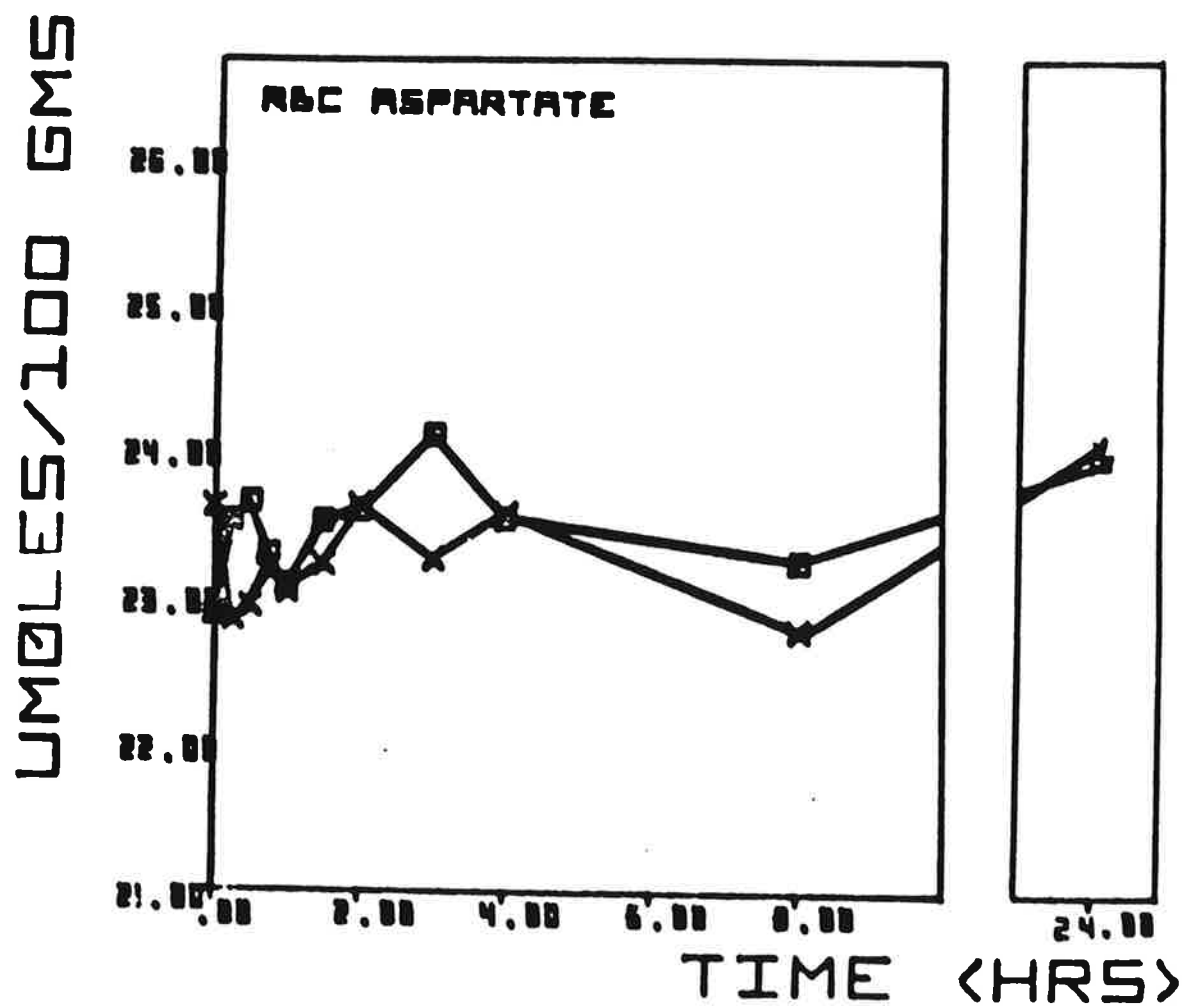


FIGURE 8 (continued): Erythrocyte aspartate levels in normal adult volunteers administered 34 mg ASPARTAME (X) or 13 mg aspartate (□) per kg body weight.

Standard deviations are listed in the appended tables.

UMLES/100 GMS

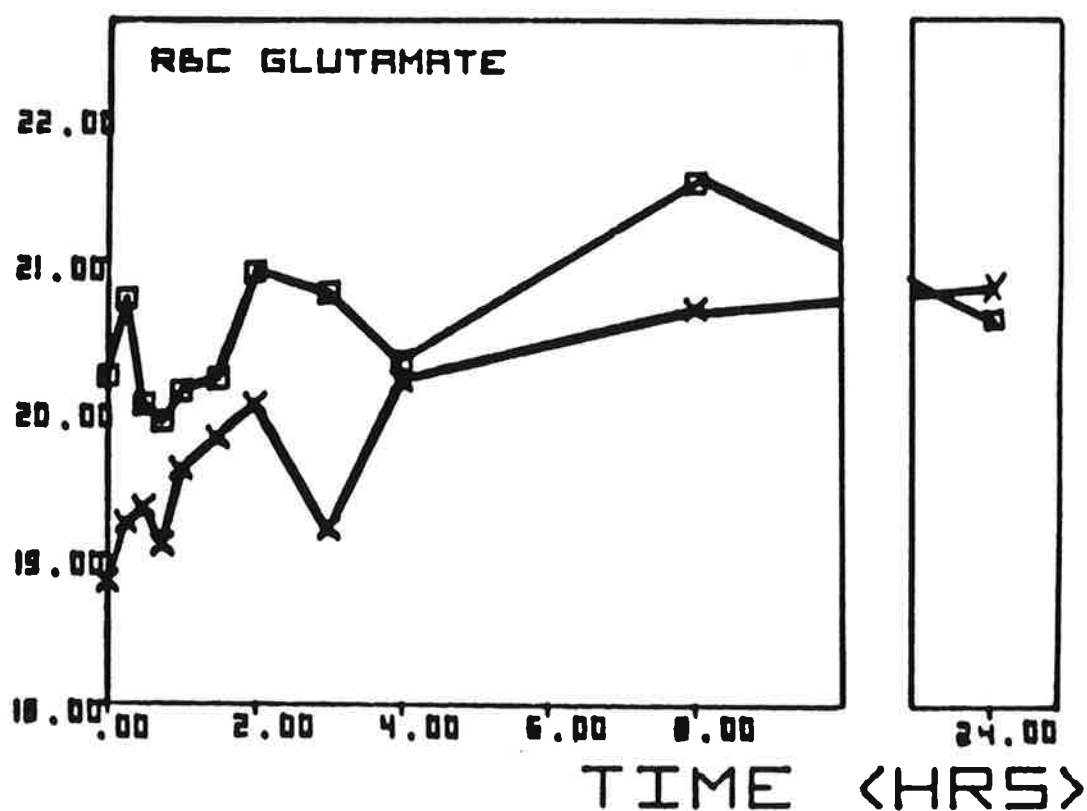


FIGURE 8 (continued): Erythrocyte glutamate levels in normal adult volunteers administered 34 mg ASPARTAME (X) or 13 mg aspartate (□) per kg body weight.

Standard deviations are listed in the appended tables.

UMLES/100 GMS

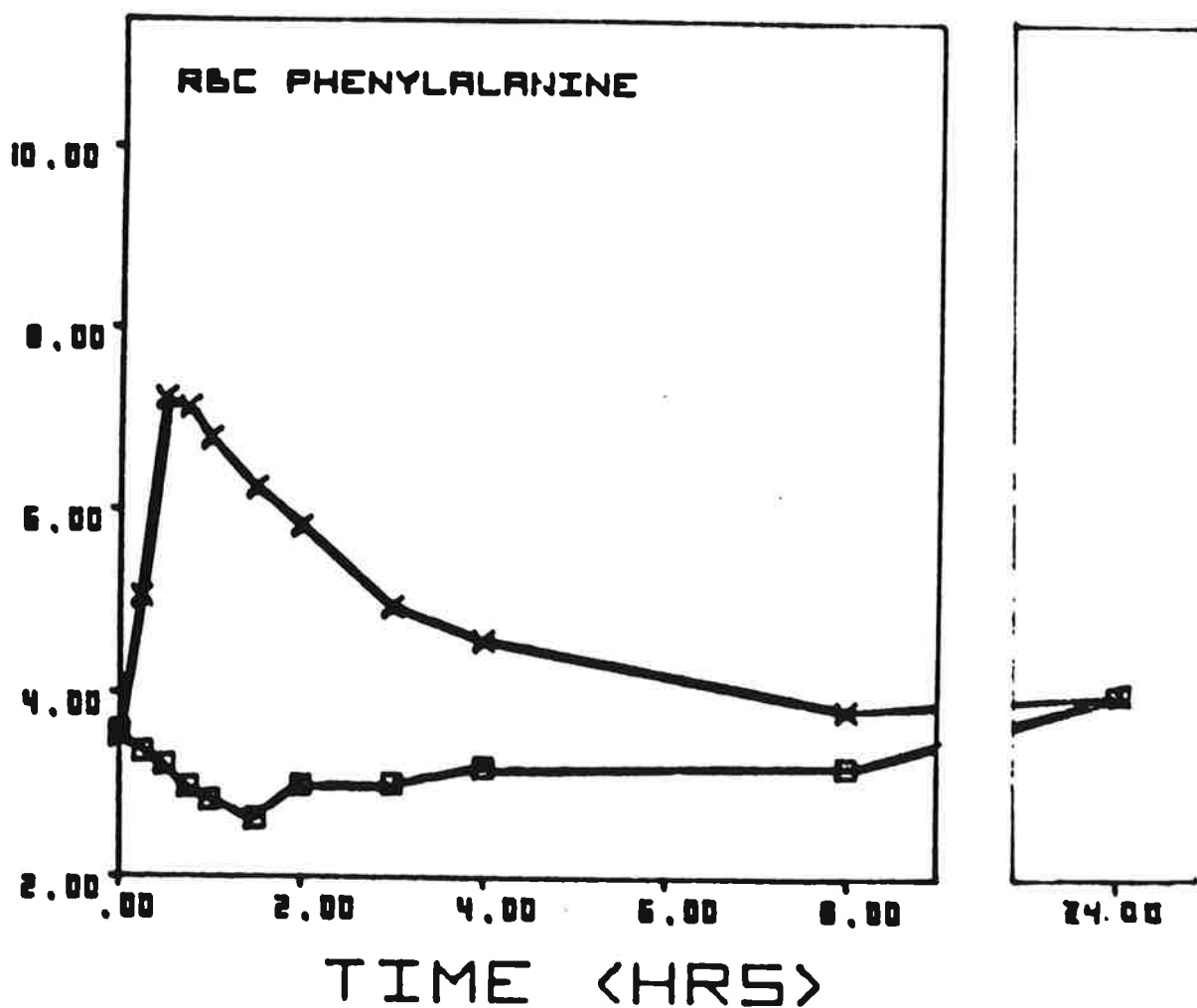


FIGURE 9: Erythrocyte phenylalanine levels in normal adult volunteers administered 34 mg ASPARTAME (X) or 13 mg aspartate (□) per kg body weight.

Standard deviations are listed in the appropriate tables.

UMLES/100 GMS

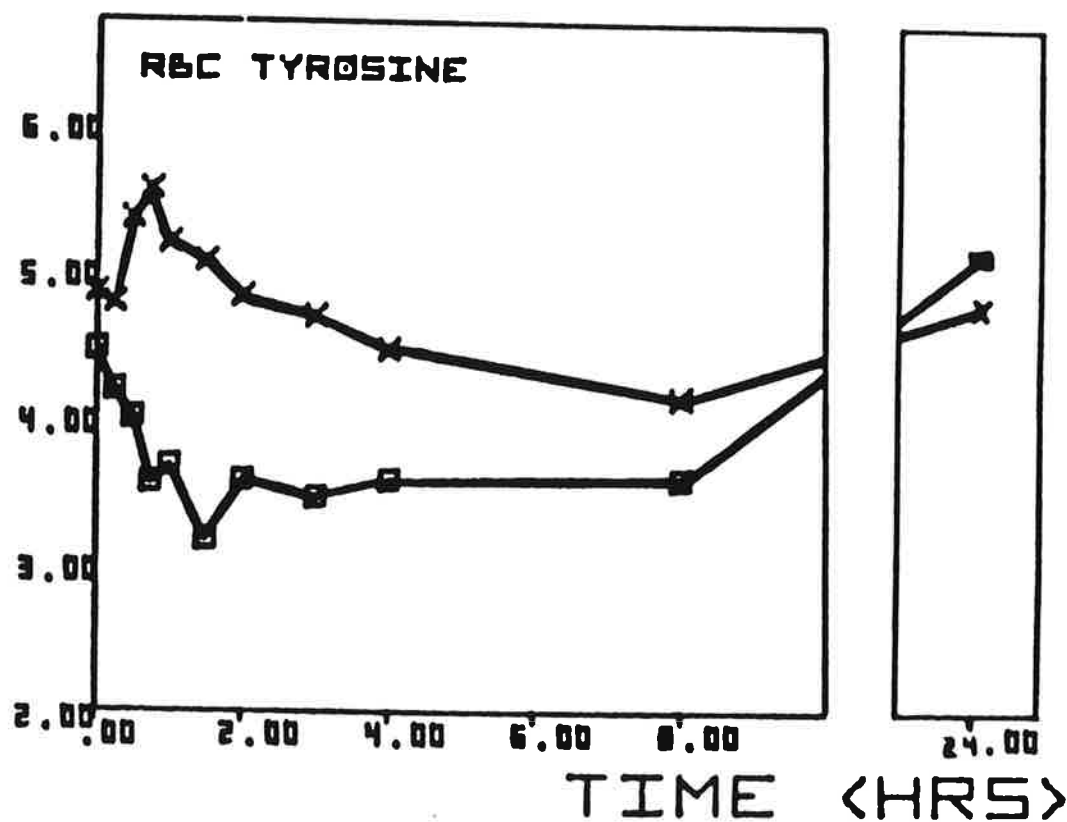


FIGURE 9 (continued): Erythrocyte tyrosine levels in normal adult volunteers administered 34 mg ASPARTAME (X) or 13 mg aspartate (□) per kg body weight.

Standard deviations are listed in the appended tables.

UMLES/100 GMS

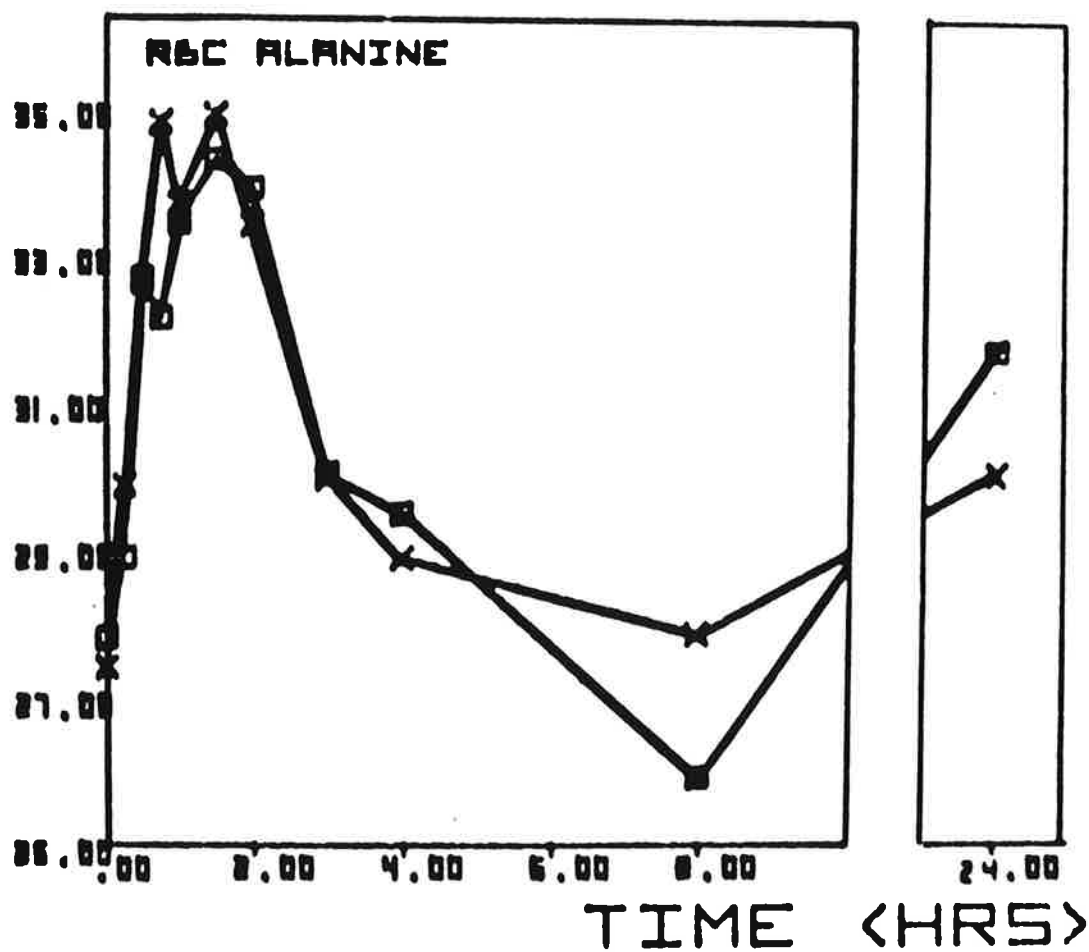


FIGURE 10: Erythrocyte alanine levels in normal adult volunteers administered 14 mg ASPARTAM (X) or 14 mg aspartate (□) per kg body weight.

Standard deviations are listed in the appended tables.

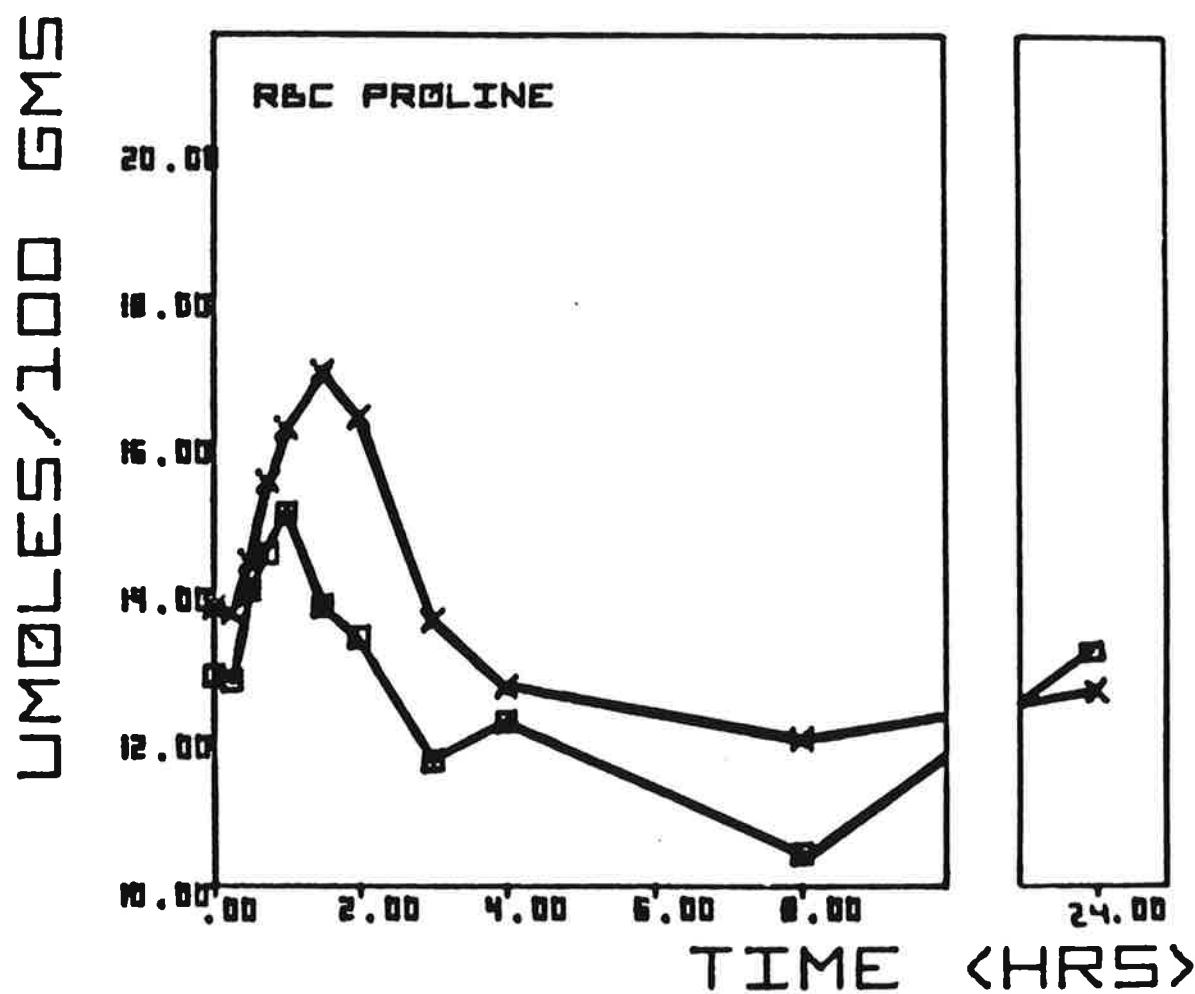


FIGURE 10 (continued): Erythrocyte proline levels in normal adult volunteers administered 34 mg ASPARTAME (X) or 13 mg aspartate (□) per kg body weight.

Standard Deviations are listed in the appended tables.

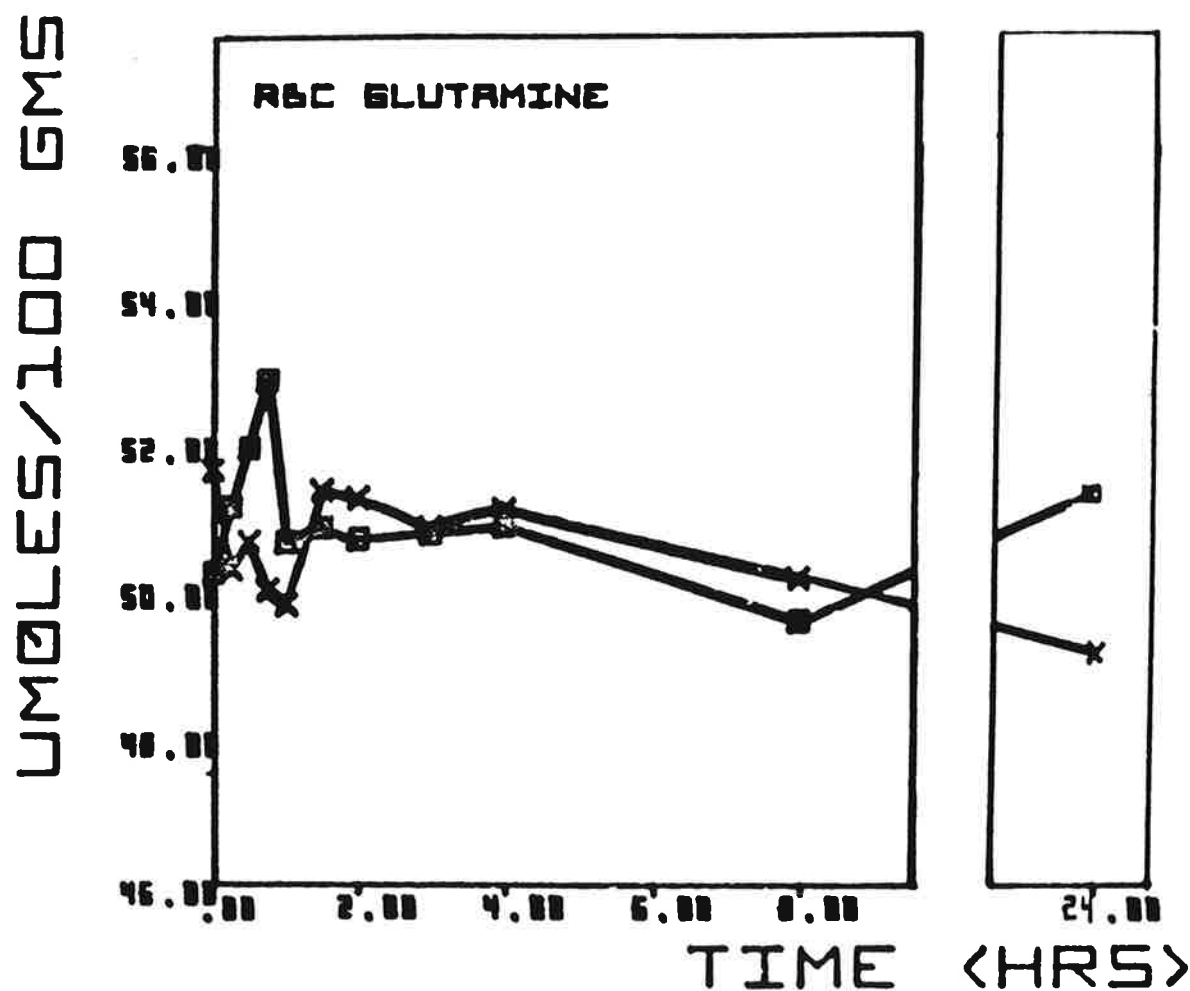


FIGURE 10 (continued): Erythrocyte glutamine levels in normal adult volunteers administered 34 mg ASPARTAME (X) or 13 mg aspartate (□) per kg body weight.

Standard deviations are listed in the appended tables.

UMLES/100 GMS

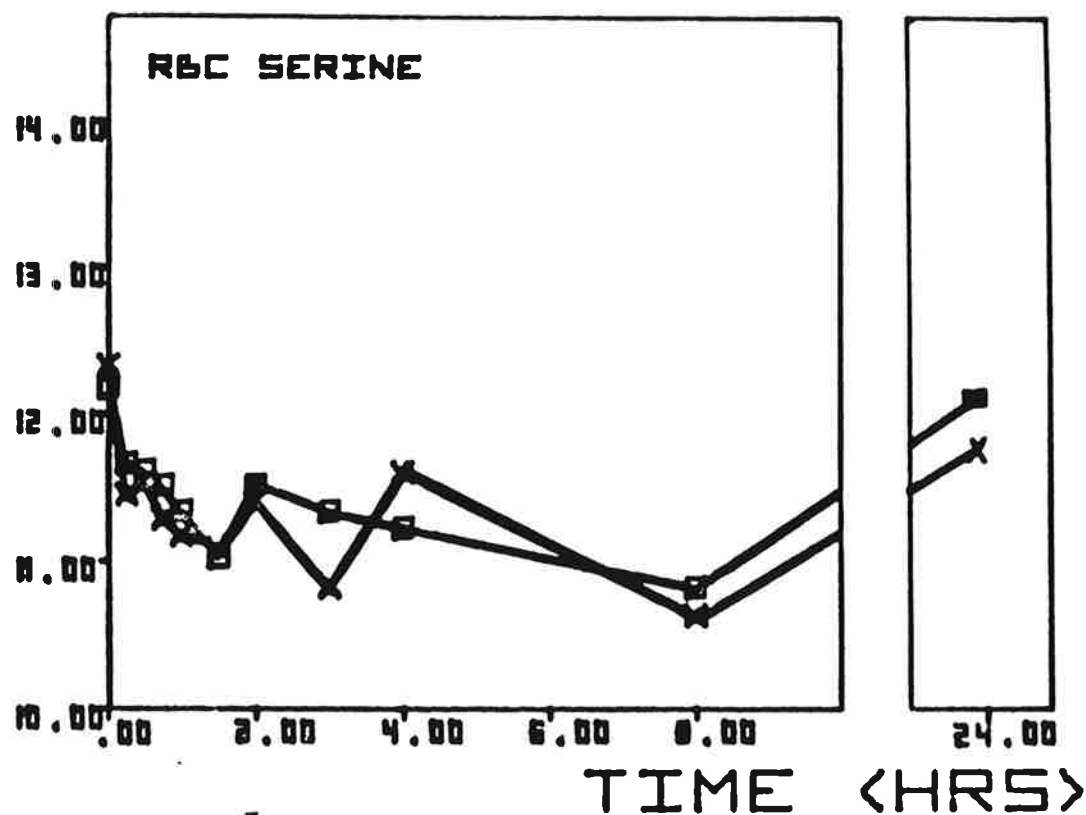


FIGURE 11: Erythrocyte serine levels in normal adult volunteers administered 34 mg ASPARTAME (X) or 13 mg aspartate (□) per kg body weight.

Standard deviations are listed in the appended tables.

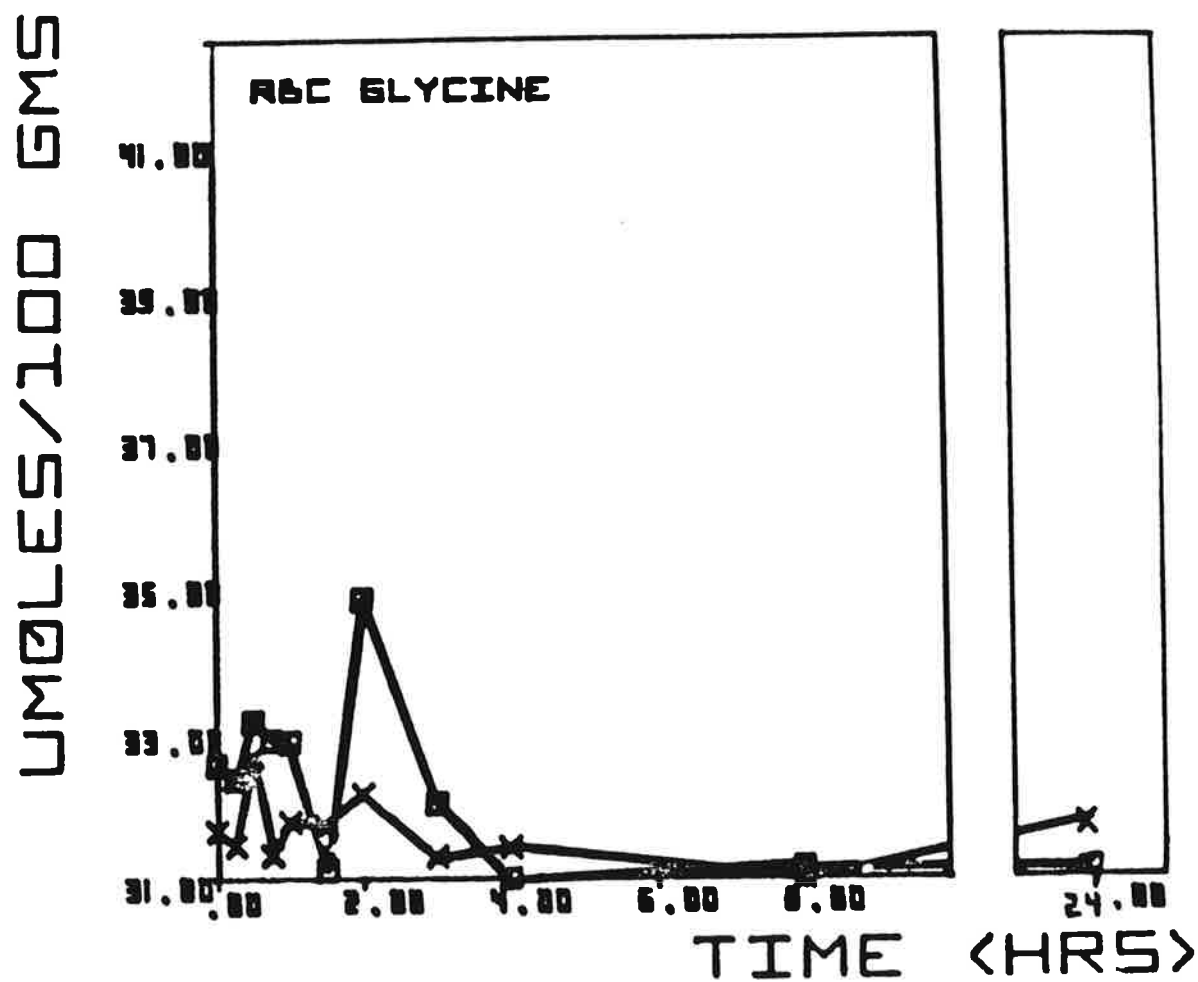


FIGURE 11 (continued): Erythrocyte glycine levels in normal adult volunteers administered 34 mg ASPARTAME (X) or 13 mg aspartate (□) per kg body weight.

Standard deviations are listed in the appended tables.

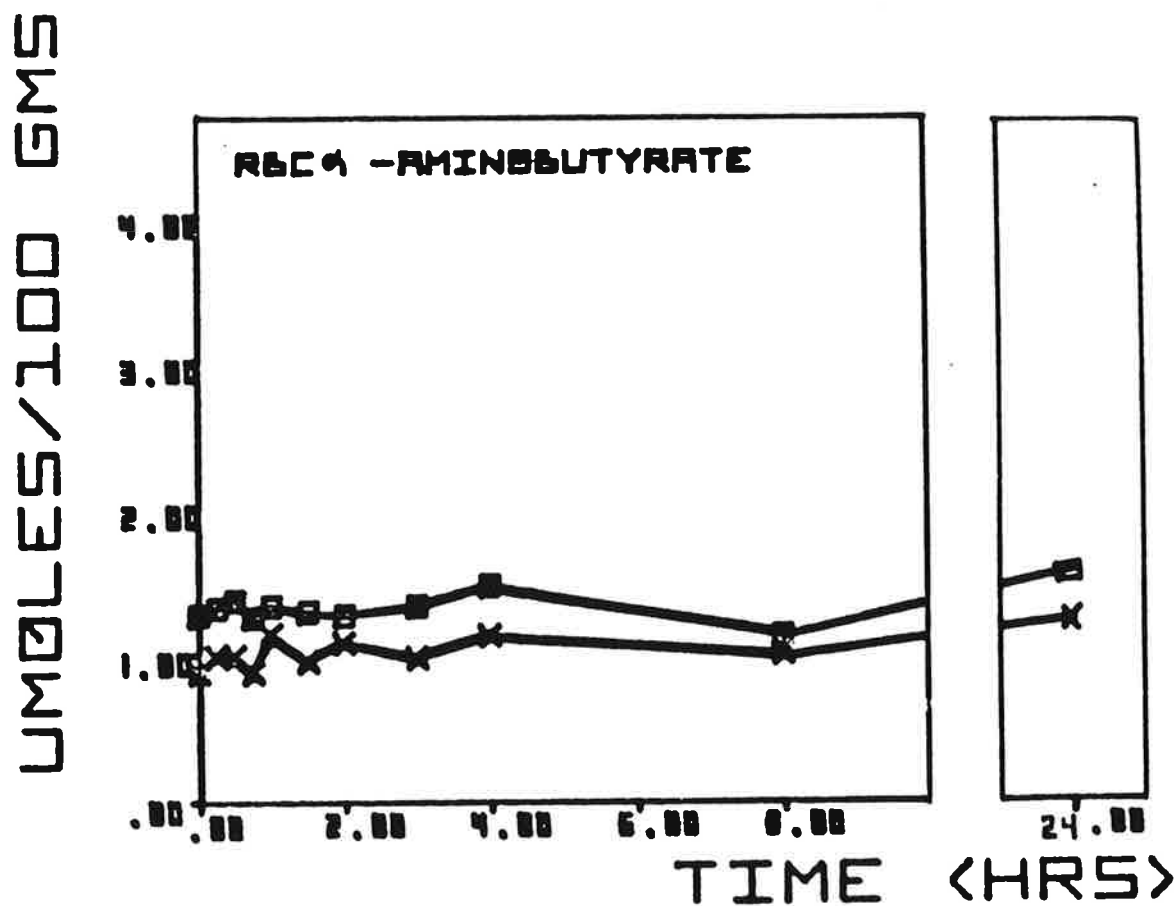


FIGURE 11 (continued): Erythrocyte α -aminobutyrate levels in normal adult volunteers administered 34 mg ASPARTAME (X) or 13 mg aspartate (□) per kg body weight.

Standard deviations are listed in the appended tables.

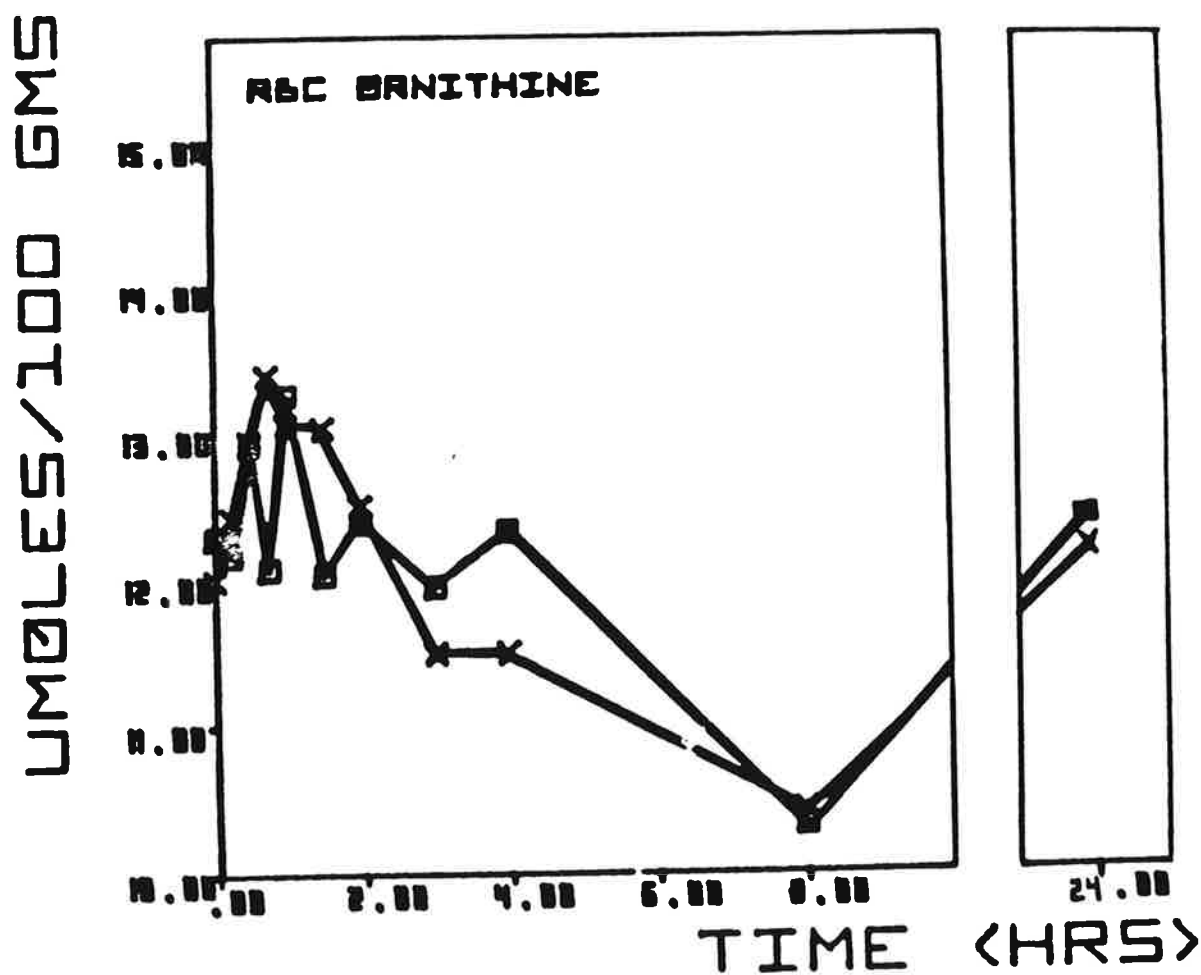


FIGURE 11 (continued): Erythrocyte ornithine levels in normal adult volunteers administered 34 mg ASPARTAME (X) or 13 mg aspartate (□) per kg body weight.

Standard deviations are listed in the appended tables.

UMLES/100 GMS

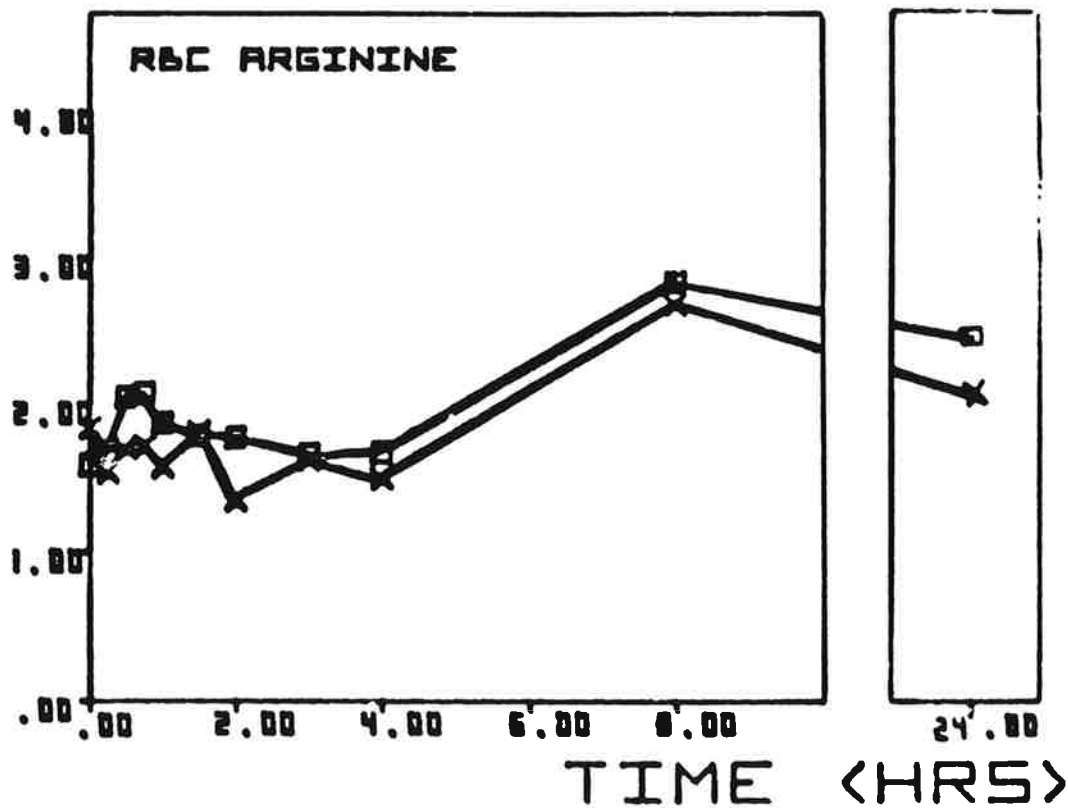


FIGURE 11 (continued): Erythrocyte arginine levels in normal adult volunteers administered 34 mg ASPARTAME (X) or 13 mg aspartate (□) per kg body weight.

Standard deviations are listed in the appended tables.

UMLES/100 GMS

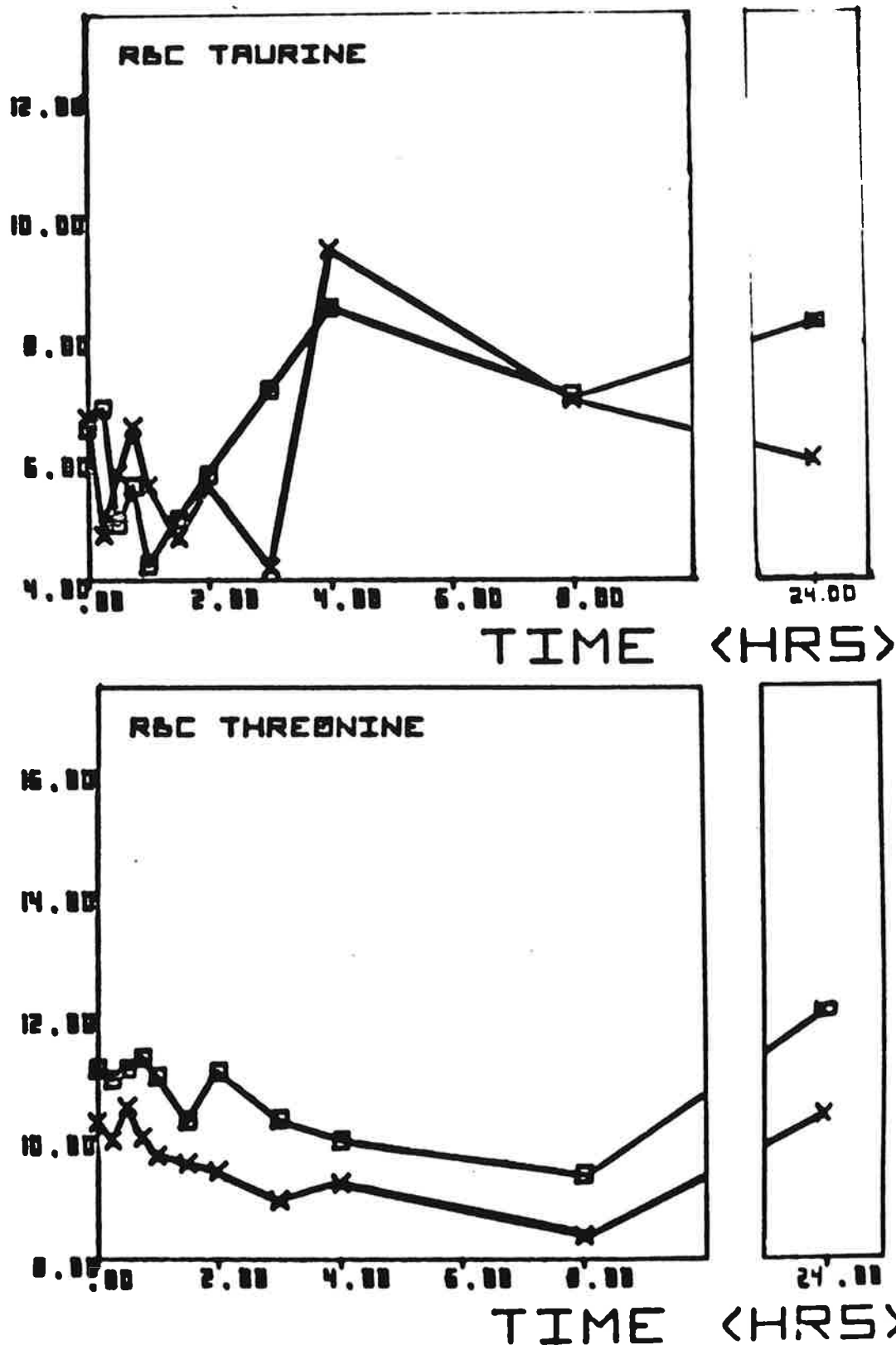


FIGURE 12: Erythrocyte taurine and threonine levels in normal adult volunteers administered 34 mg ASPARTAME (X) or 1.75% aspartate (□) per kg body weight.

Standard deviations are listed in the appended tables.

UMQLES/100 GMS

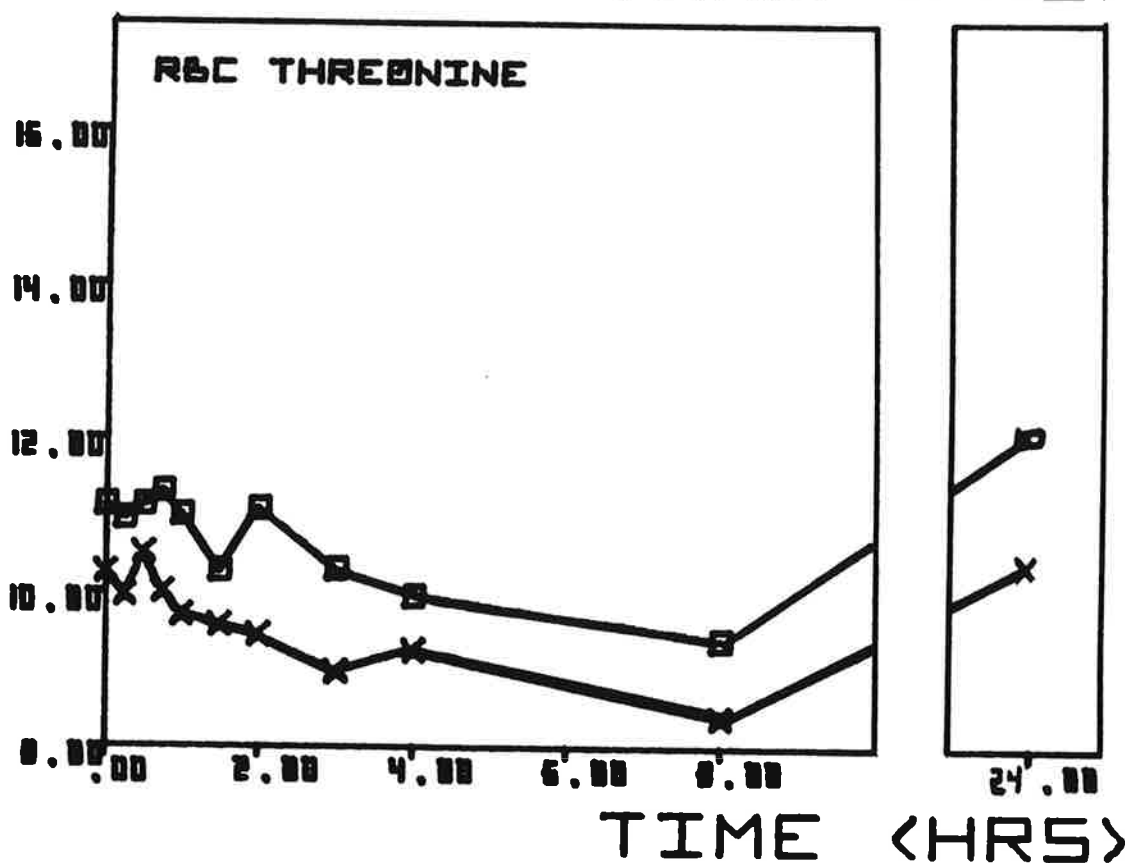
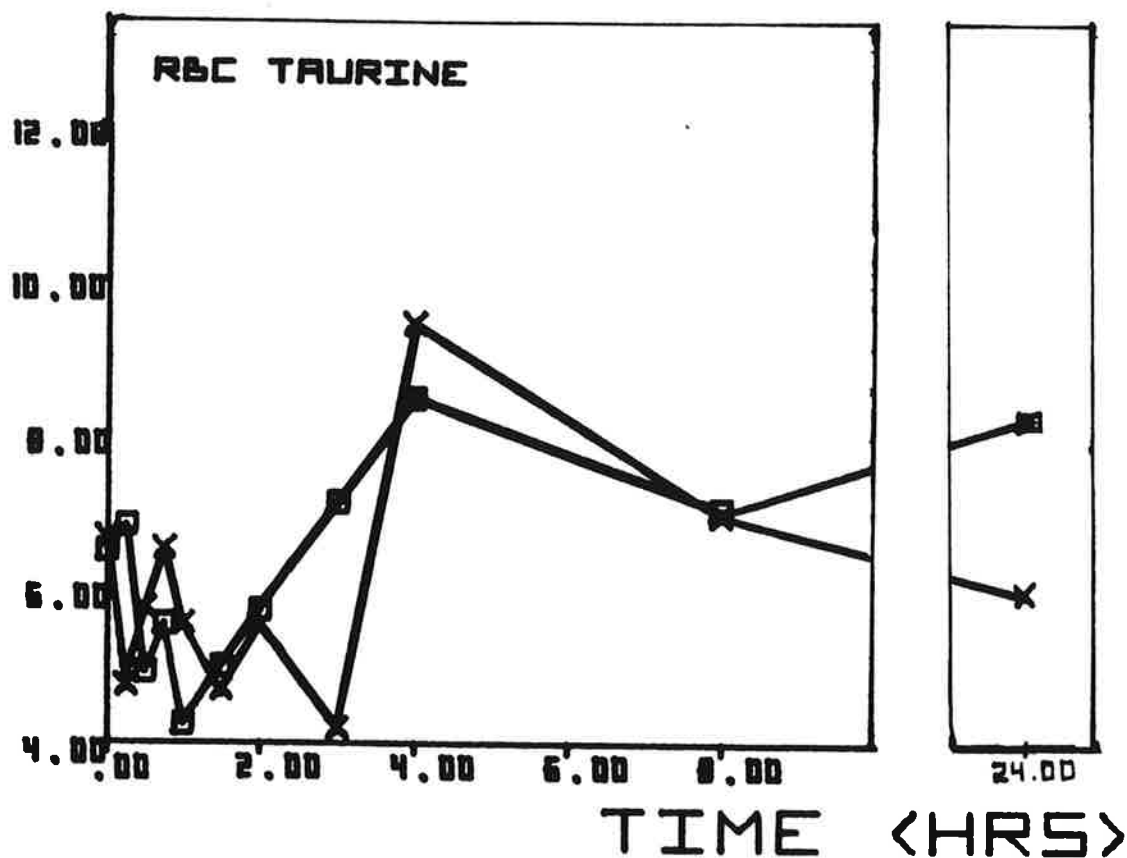


FIGURE 12: Erythrocyte taurine and threonine levels in normal adult volunteers administered 34 mg ASPARTAME (X) or 13 mg aspartate (□) per kg body weight.

Standard deviations are listed in the appended tables.

UMLES/100 GMS

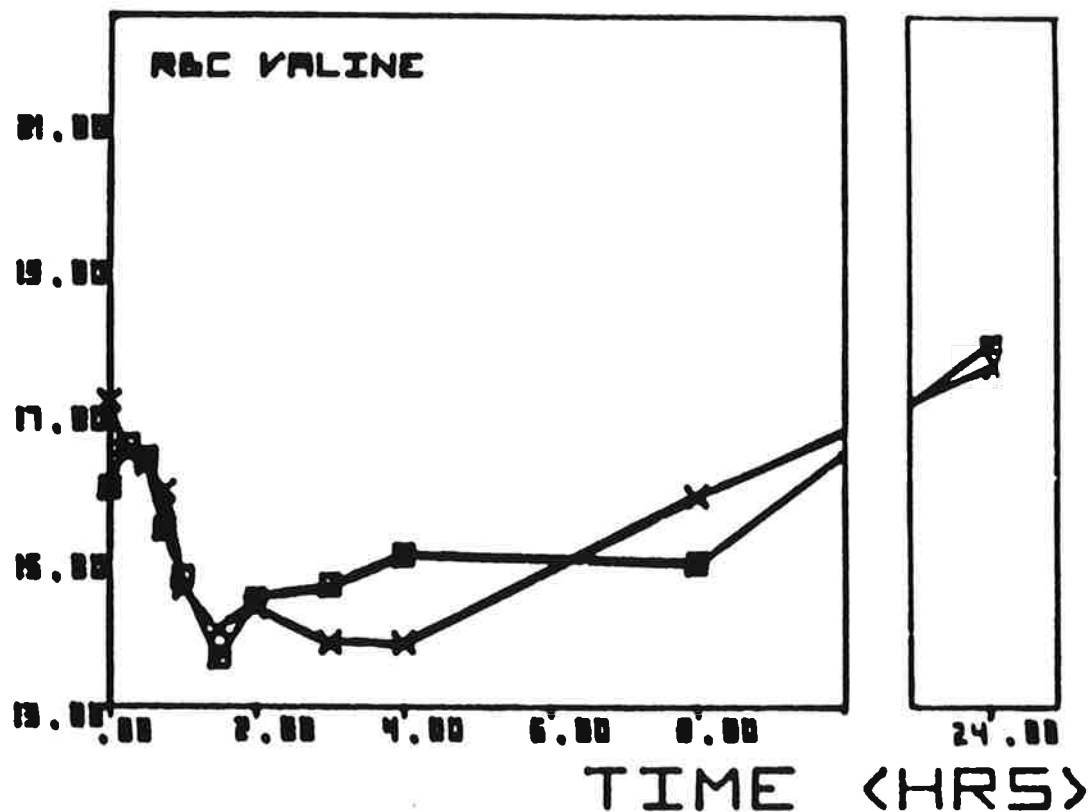


FIGURE 13: Erythrocyte valine levels in normal adults administered 34 mg/kg ASPARTATE (X) or 13 mg/kg aspartate (□) per kg body weight.

Standard deviations are listed in the appended tables.

UMLES/100 GMS

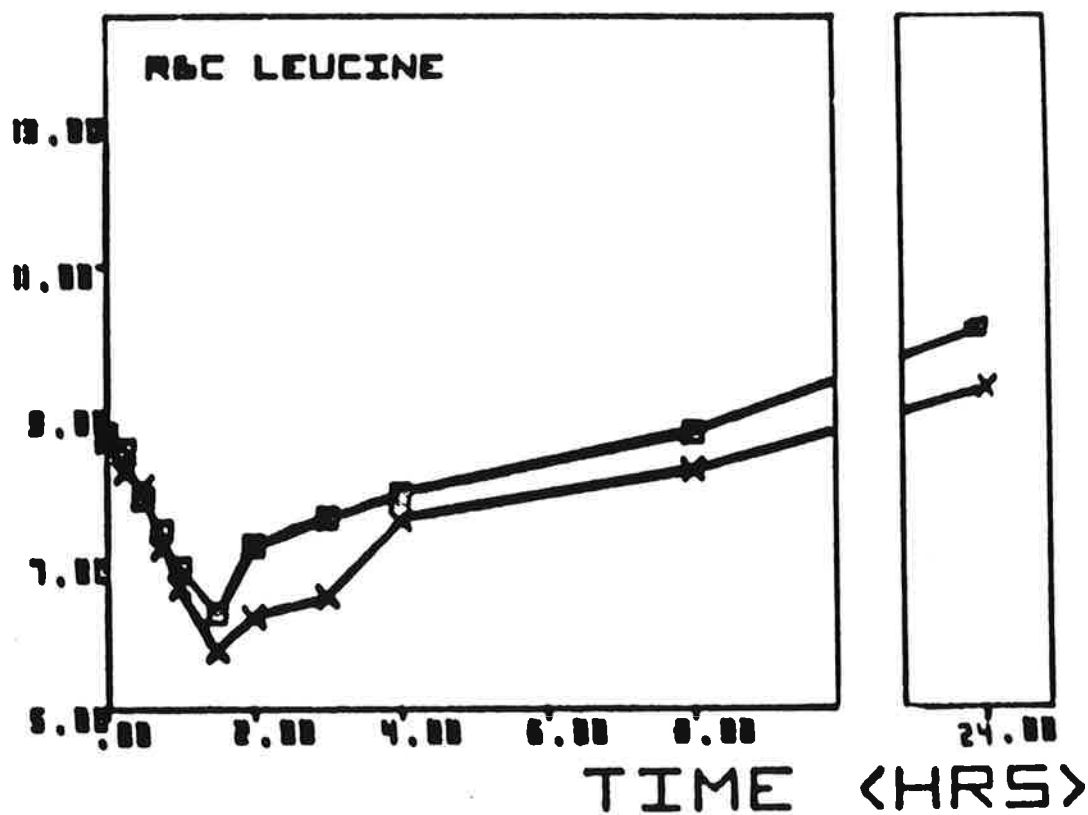


FIGURE 13 (continued): Erythrocyte leucine levels in normal adults administered 14 mg/kg ASPARTAME (X) or 13 mg/kg aspartate (□) per kg body weight.

Standard deviations are listed in the appended tables.

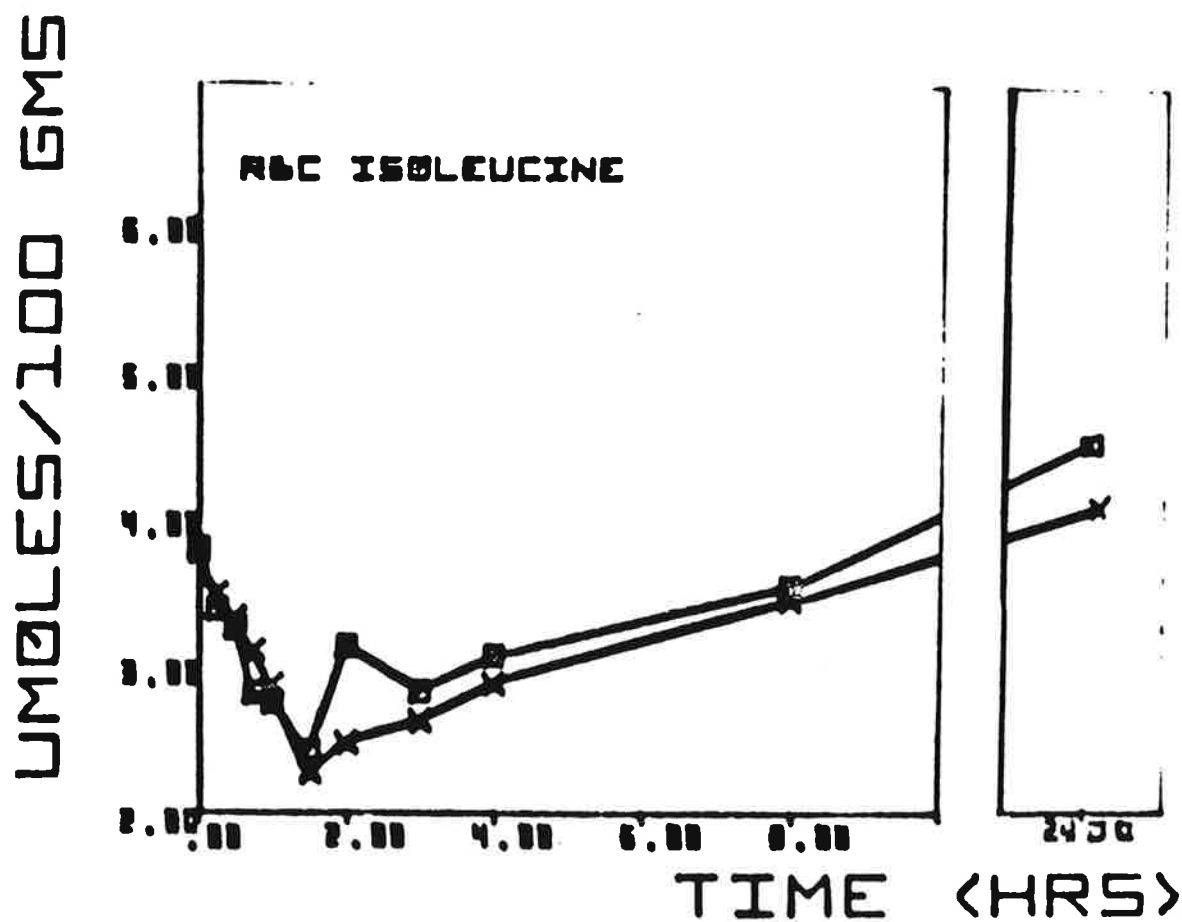


FIGURE 13 (continued): Erythrocyte isoleucine levels in normal adults administered 34 mg/kg ASPAR/AME (X) or 13 mg/kg aspartate (□) per kg body weight.

Standard deviations are listed in the appended tables.

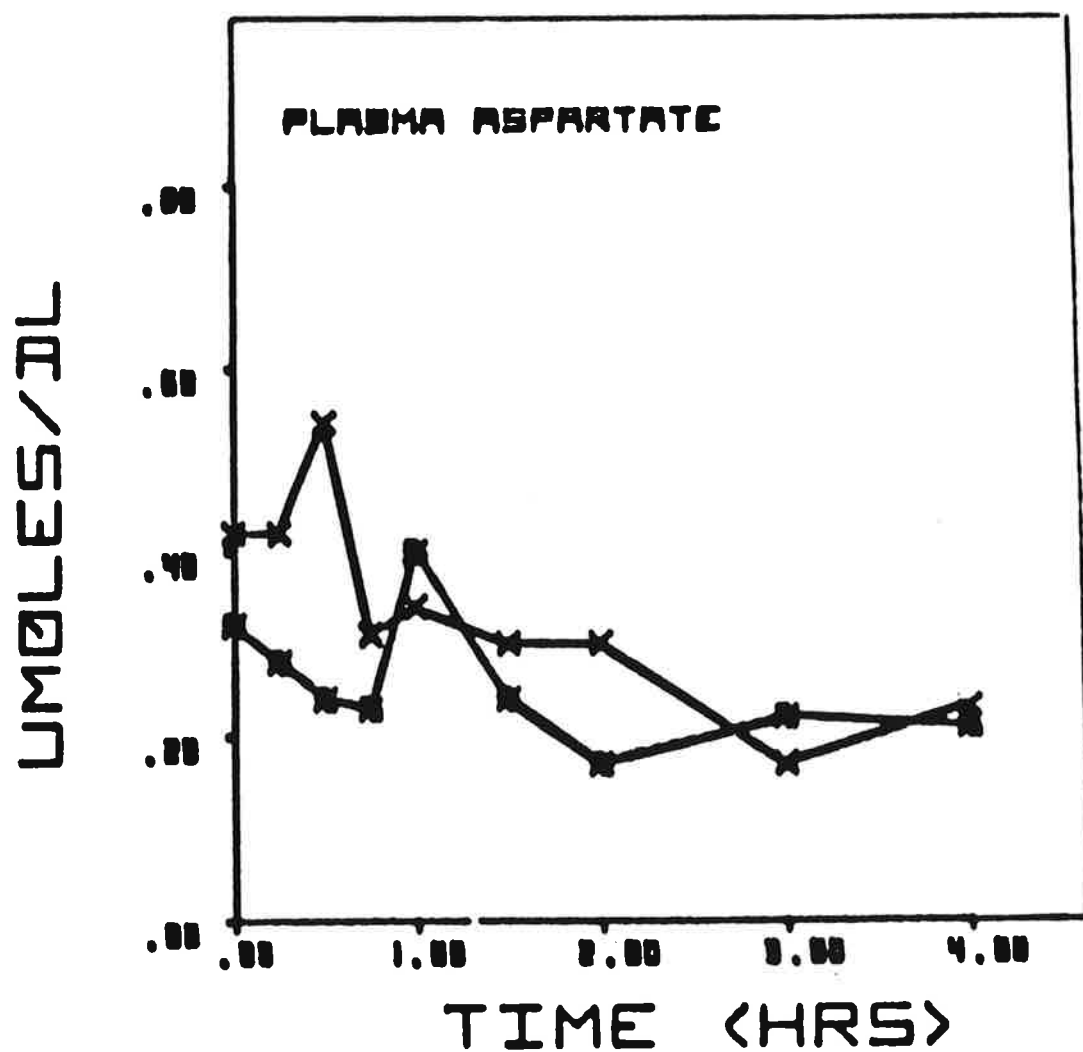


FIGURE 14: Plasma aspartate levels in lactating women administered either lactose (O) or ASA/ASA/ASA (X) at 50 mg/kg body weight.

Standard deviations are listed in the appended tables.

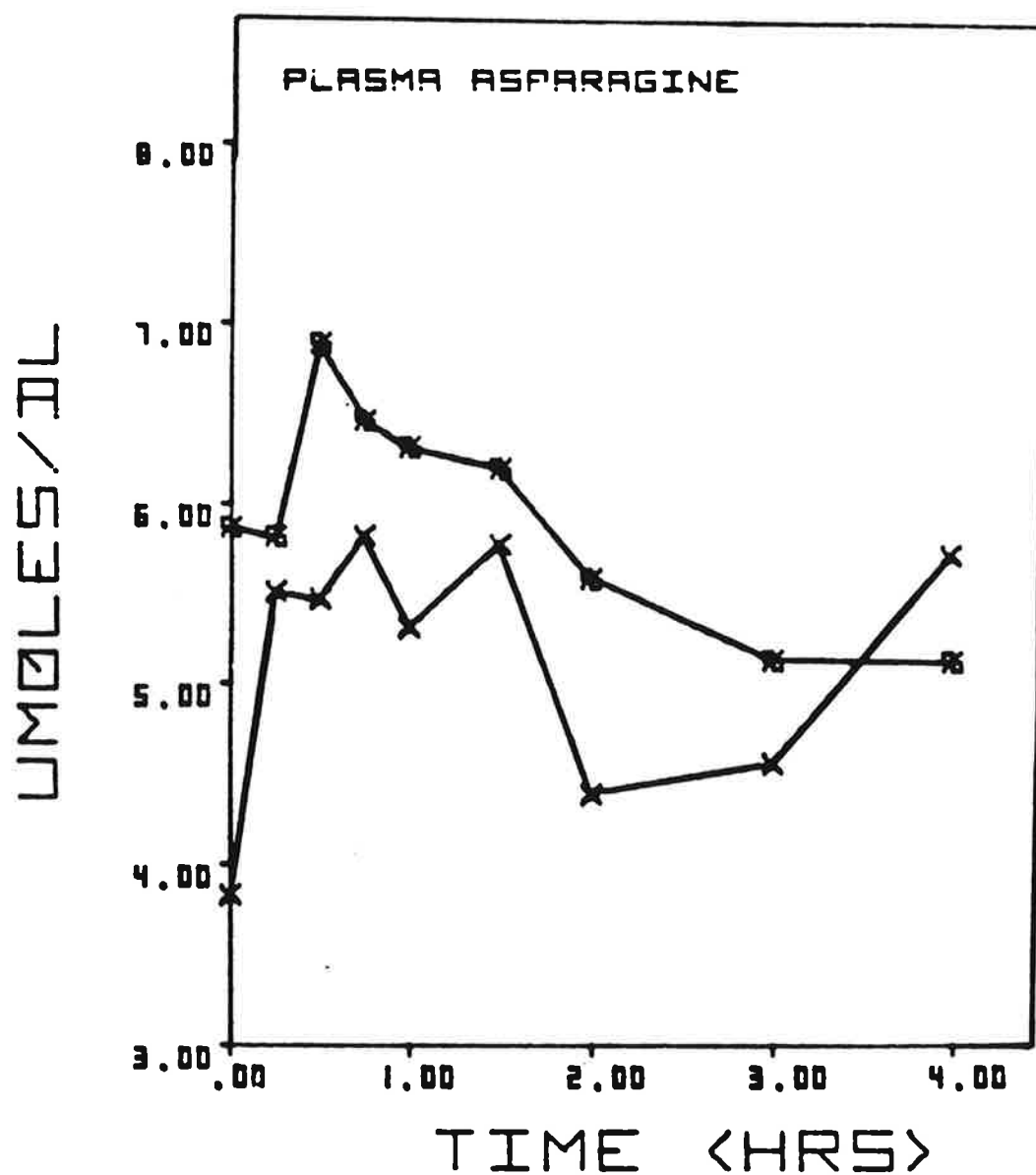


FIGURE 14 (continued): Plasma asparagine levels in lactating women administered either lactose (O) or ASPARTAME (X) at 50 mg/kg body weight.

Standard deviations are listed in the appended tables.

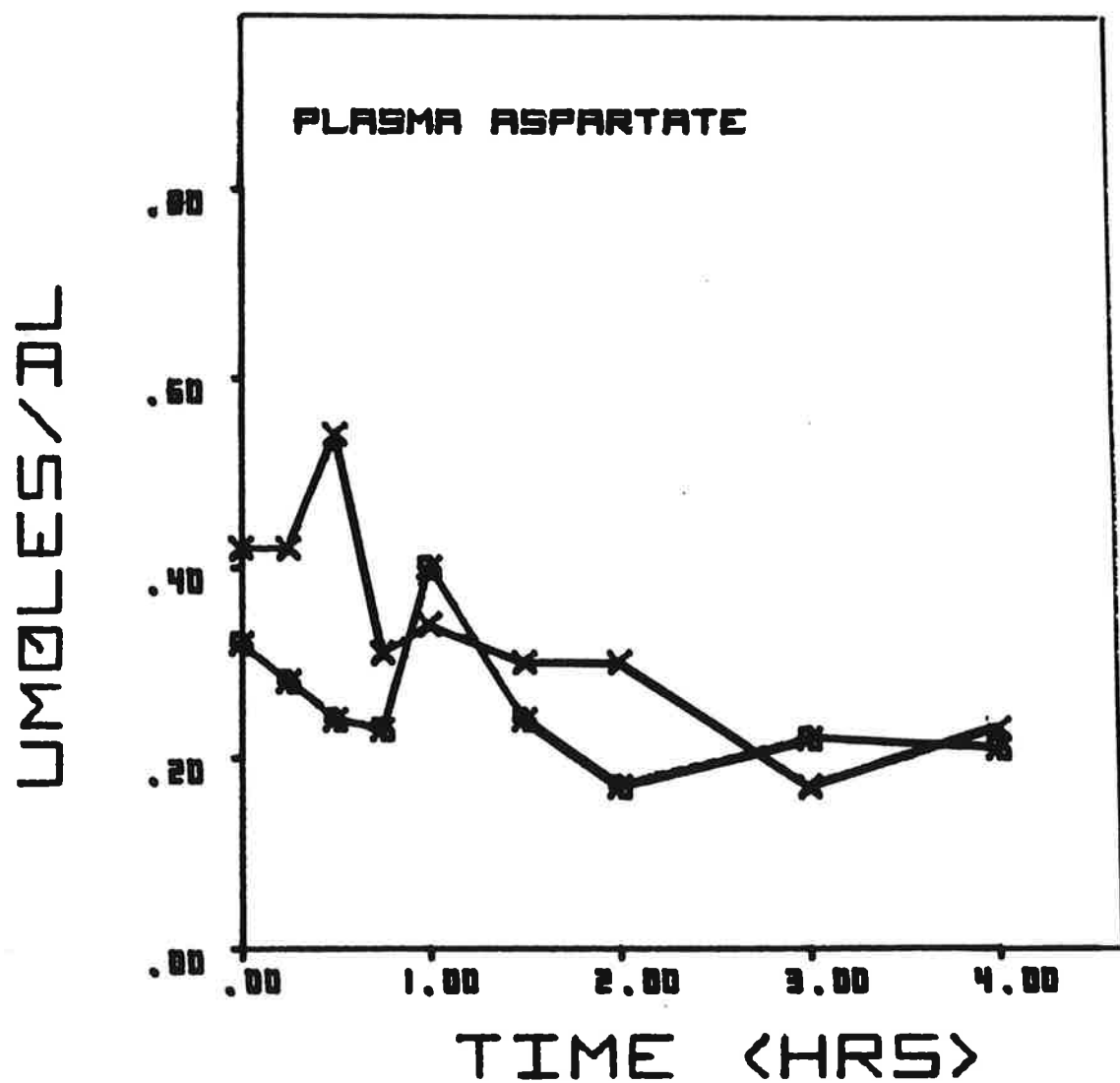


FIGURE 14: Plasma aspartate levels in lactating women administered either lactose (□) or ASPARTAME (X) at 50 mg/kg body weight.

Standard deviations are listed in the appended tables.

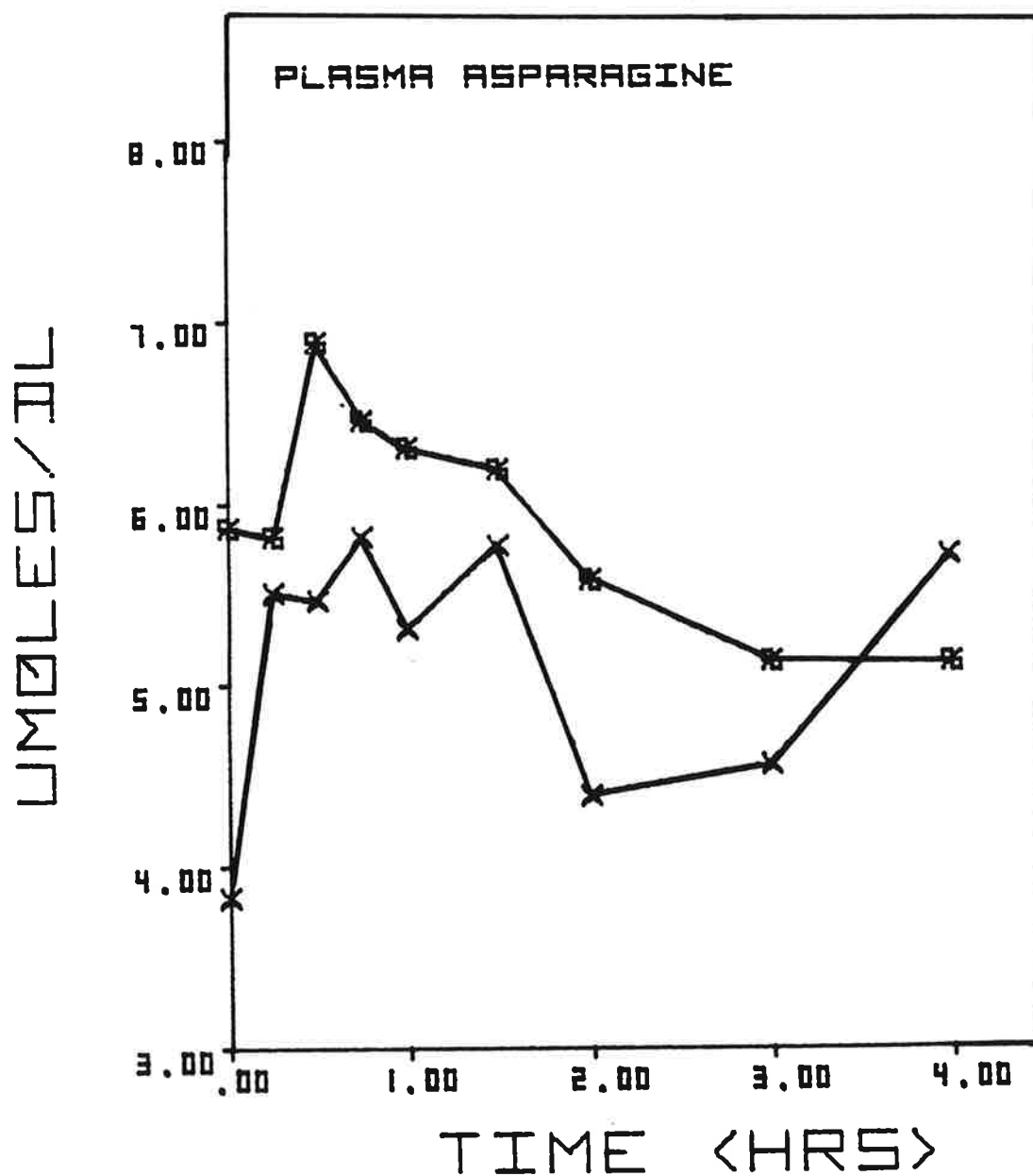


FIGURE 14 (continued): Plasma asparagine levels in lactating women administered either lactose (□) or ASPARTAME (X) at 50 mg/kg body weight.

Standard deviations are listed in the appended tables.

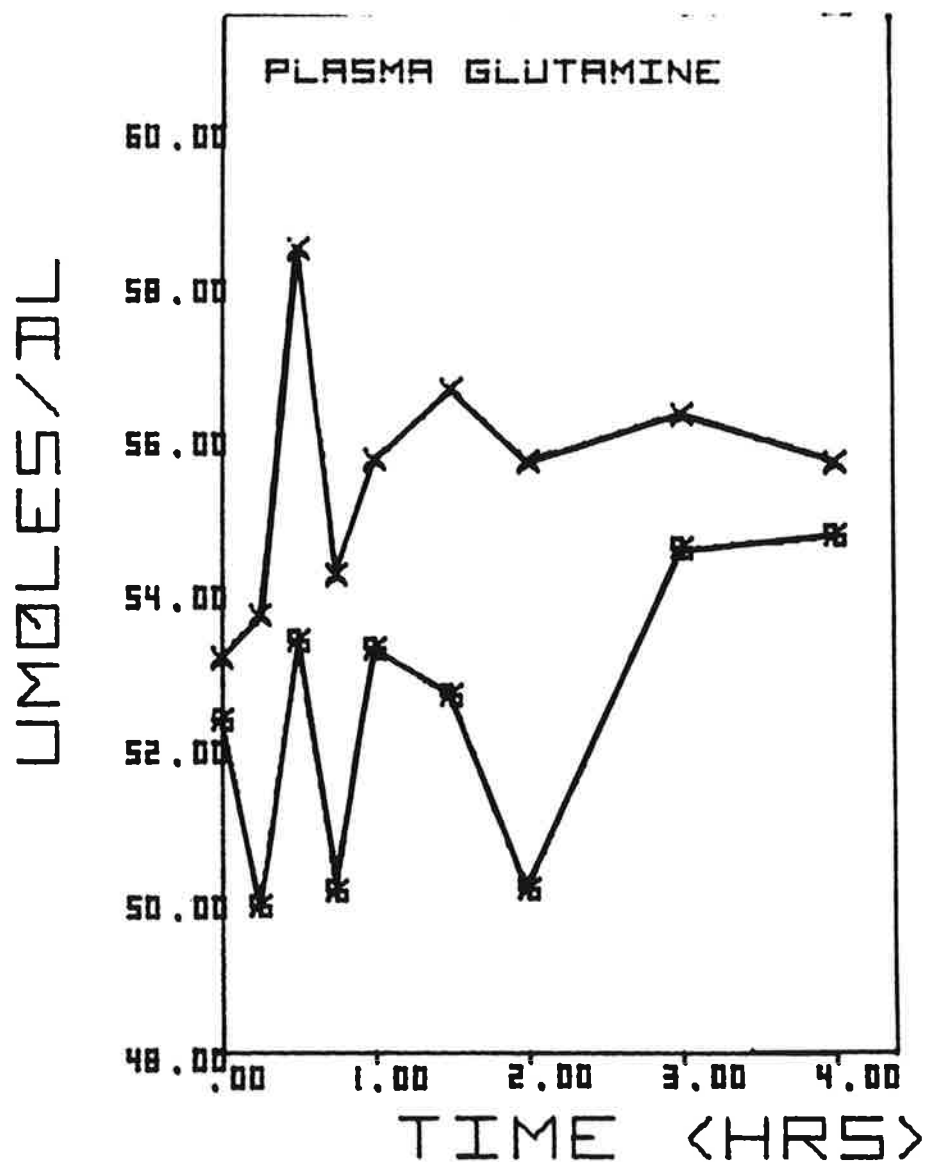


FIGURE 14 (continued): Plasma glutamine levels in lactating women administered either lactose (%) or ASPARTAME (X) at 50 mg/kg body weight.

Standard deviations are listed in the appended tables.

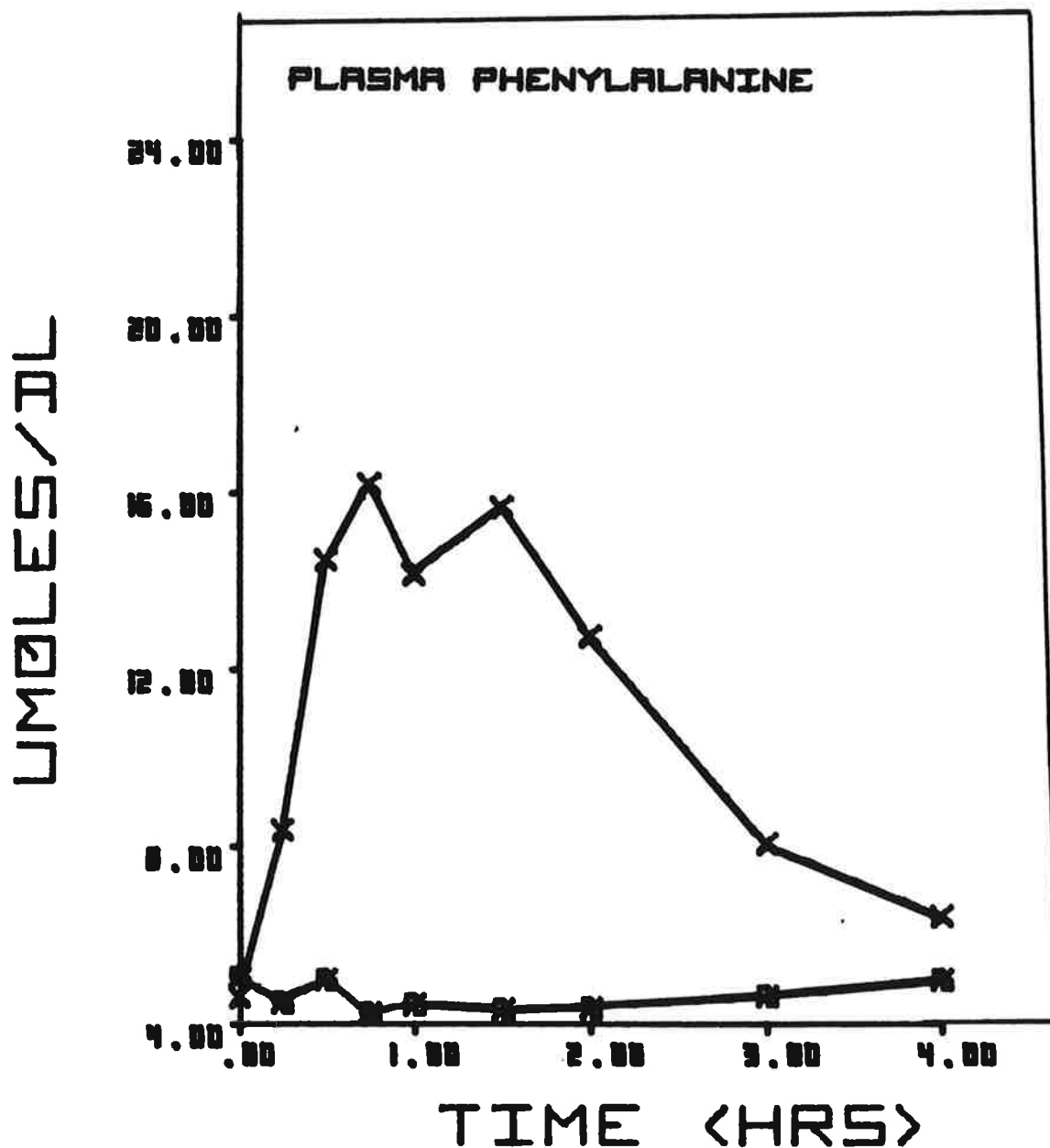


FIGURE 15: Plasma phenylalanine levels in lactating women administered ASPARTAME (X) or lactose (R) at 50 mg/kg body weight.

Standard deviations are listed in the appended tables.

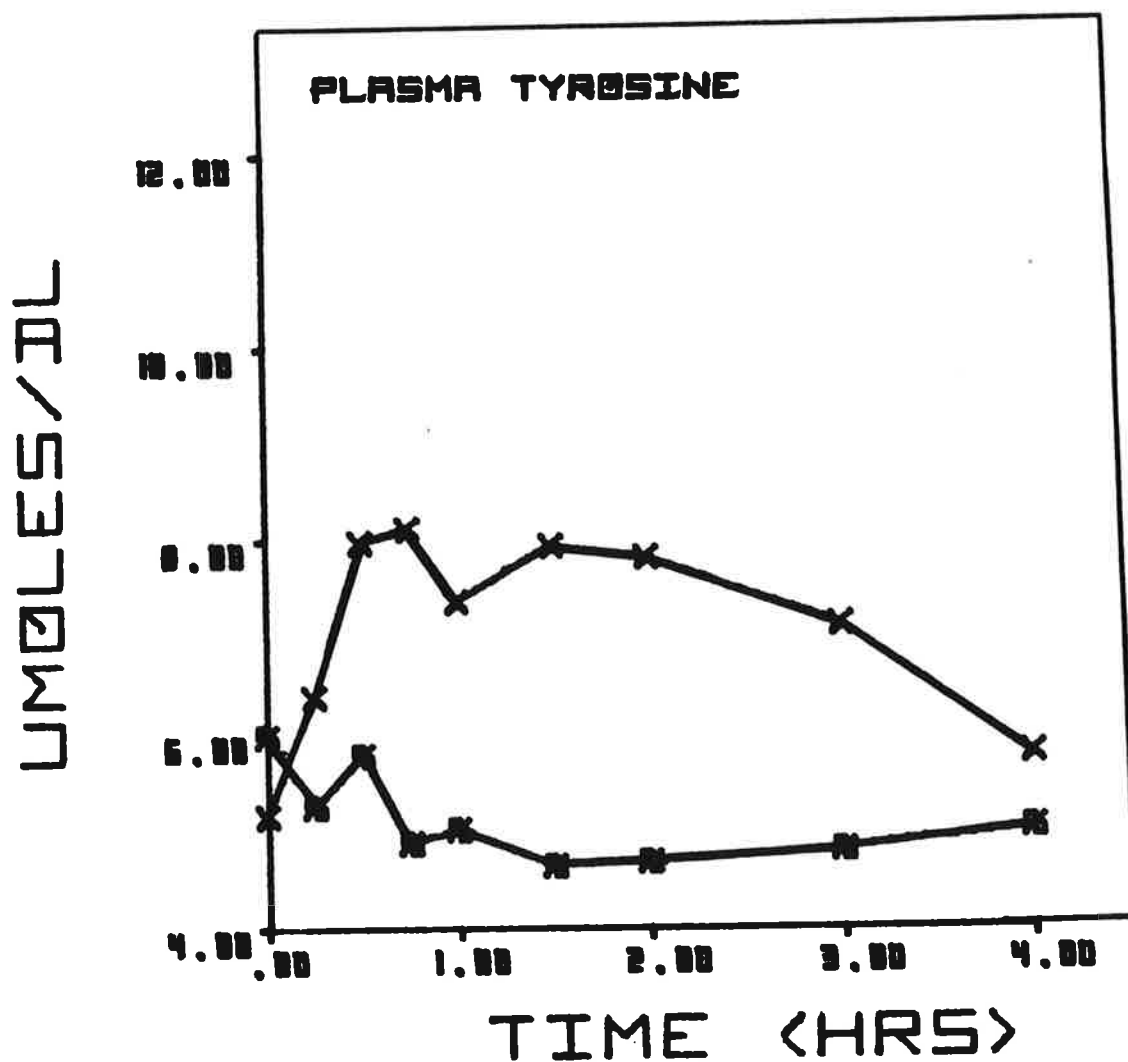


FIGURE 15 (continued): Plasma tyrosine levels in lactating women administered ASPARTAME (X) or lactose (⌘) at 50 mg/kg body weight.

Standard deviations are listed in the appended tables.

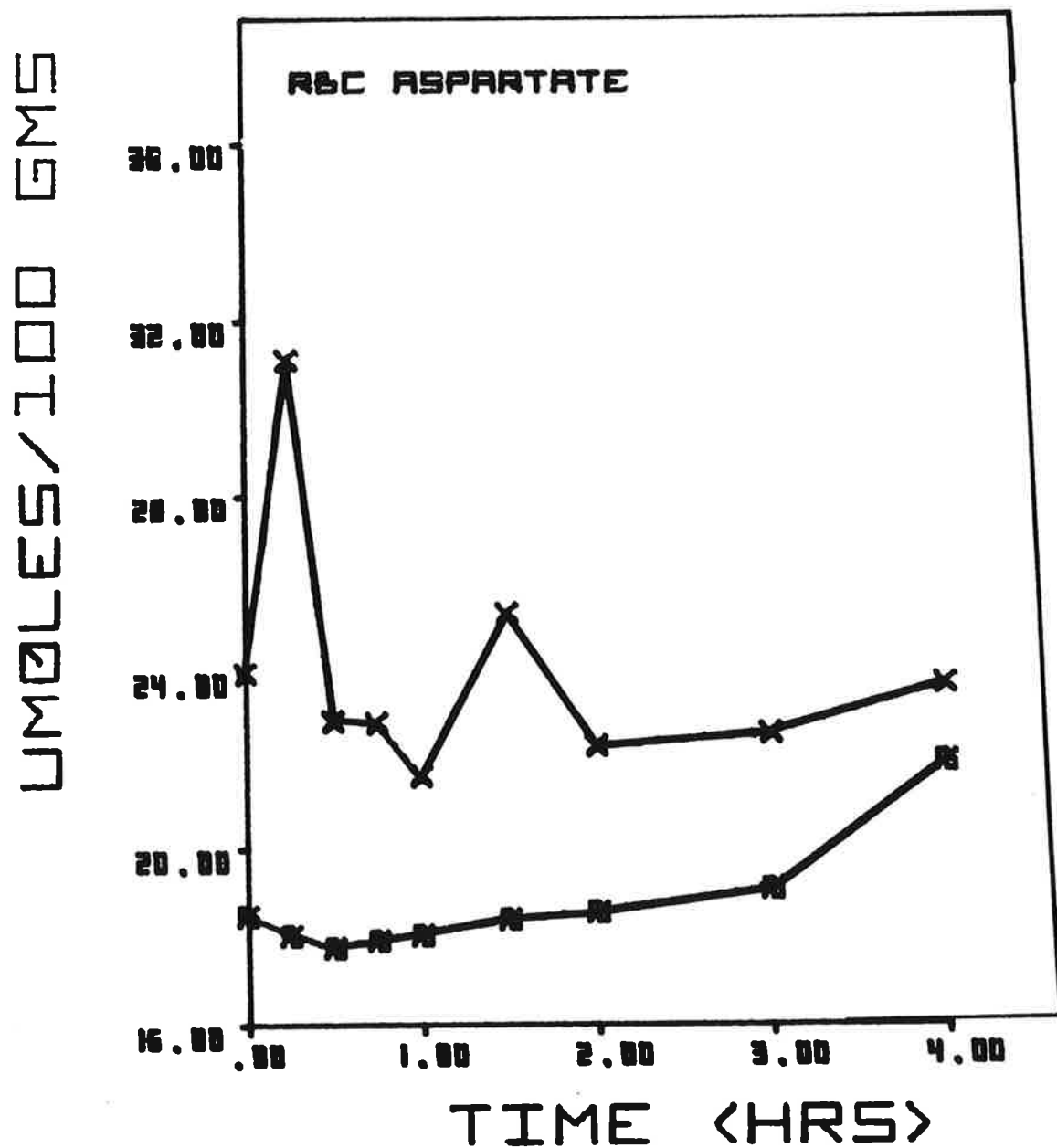


FIGURE 16: Erythrocyte aspartate levels in lactating women administered either ASPARTAME (X) or lactose (%) at 50 mg per kg body weight.

Standard deviations are listed in the appended tables.

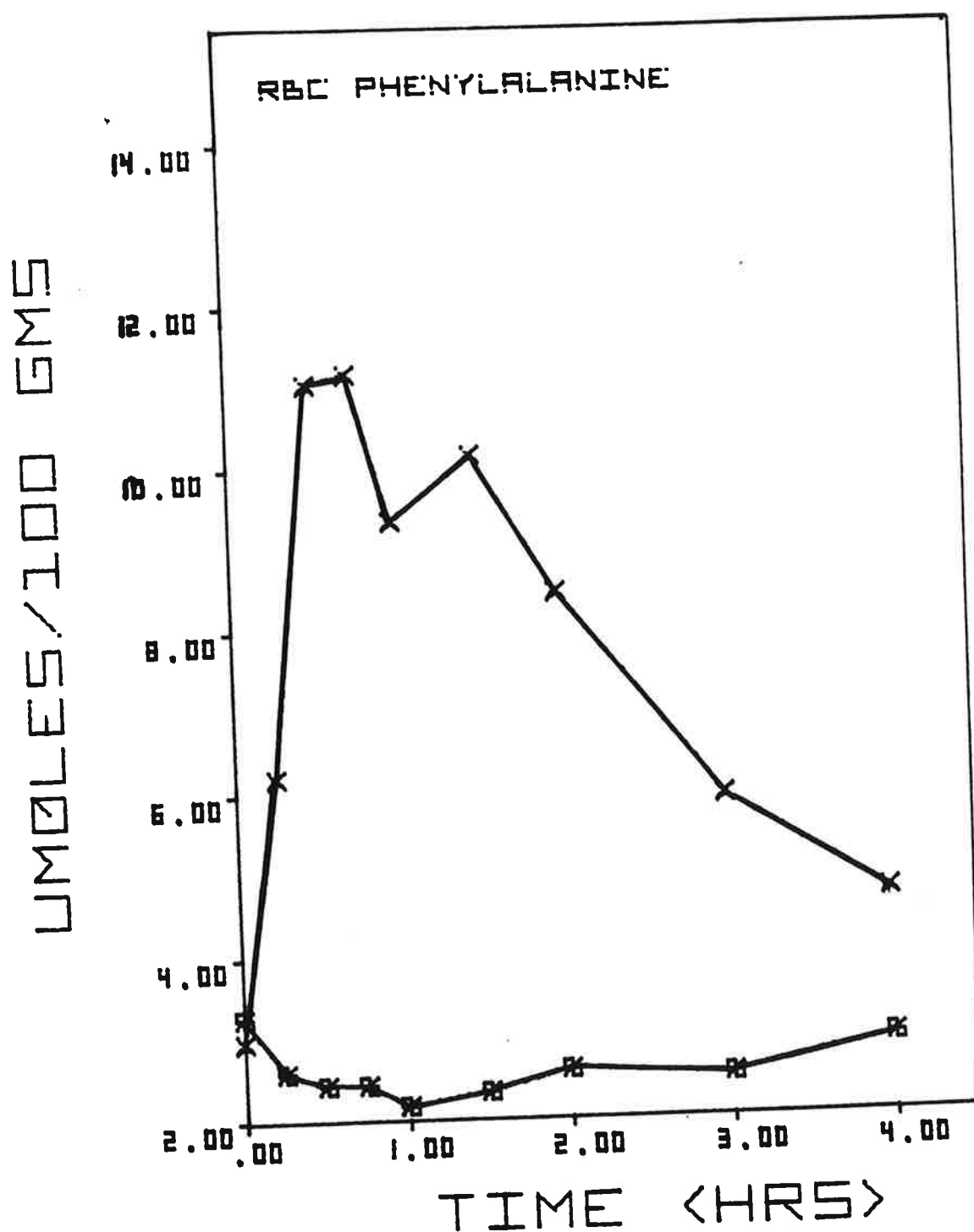


FIGURE 16 (continued): Erythrocyte phenylalanine levels in lactating women administered either ASPARTAME (X) or lactose (%) at 50 mg per kg body weight.

Standard deviations are listed in the appended tables.

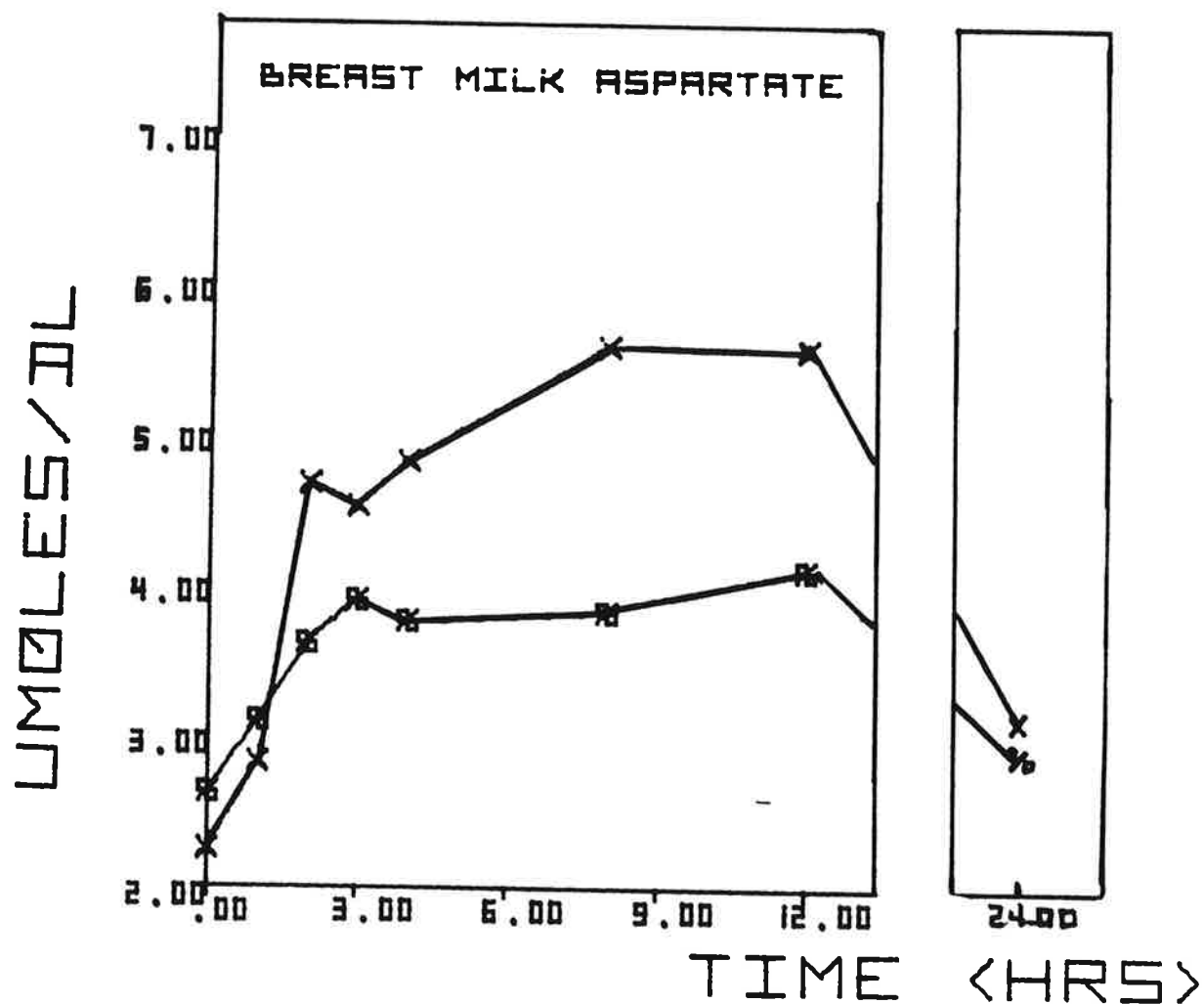


FIGURE 17: Breast milk aspartate levels in lactating women administered lactose (□) or ASPARTAME (X) at 50 mg/kg body weight.

Standard deviations are listed in the appended tables.

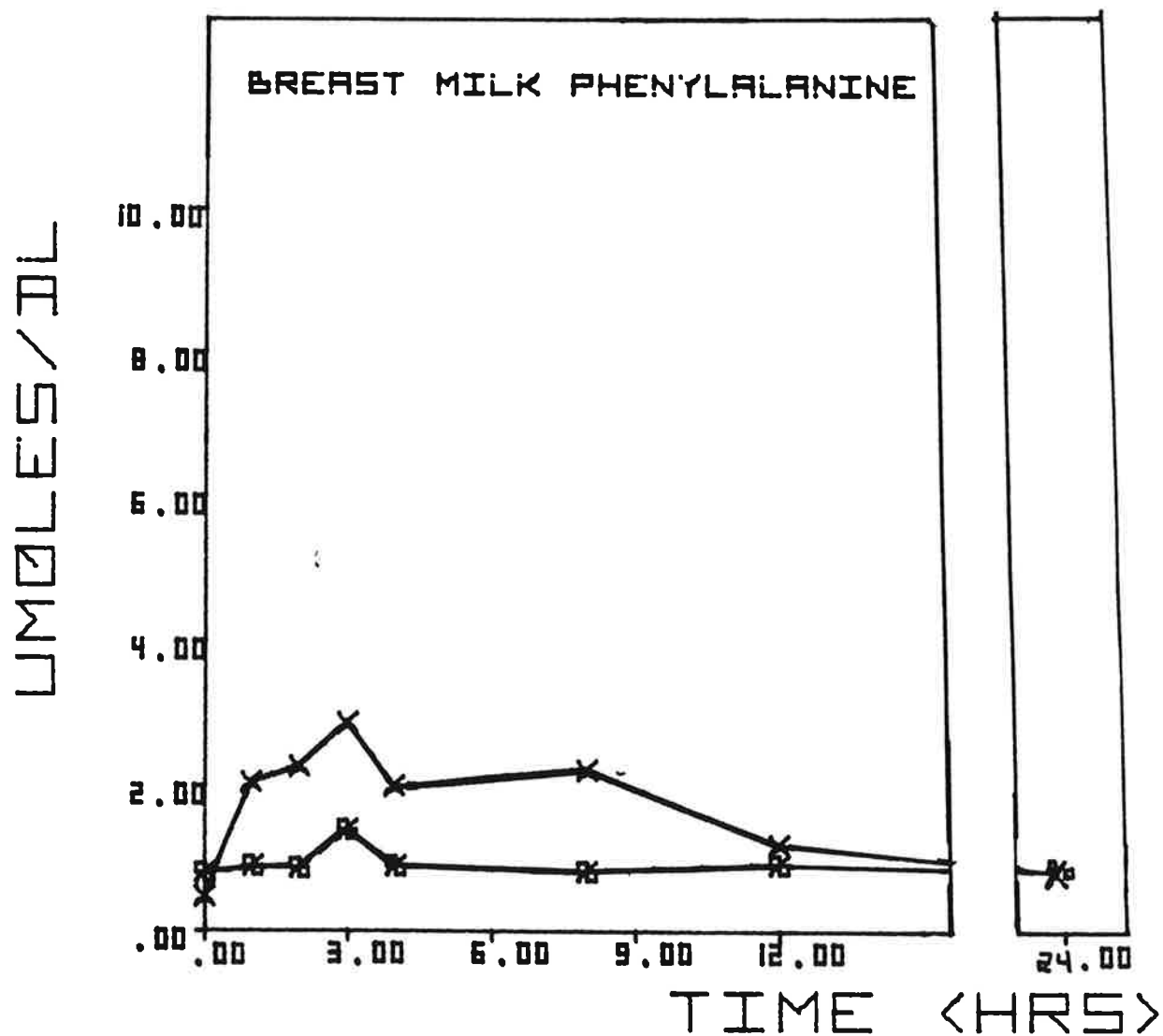


FIGURE 17 (continued): Breast milk phenylalanine levels in lactating women administered lactose (\circ) or ASPARTAME (X) at 50 mg/kg body weight.

Standard deviations are listed in the appended tables.

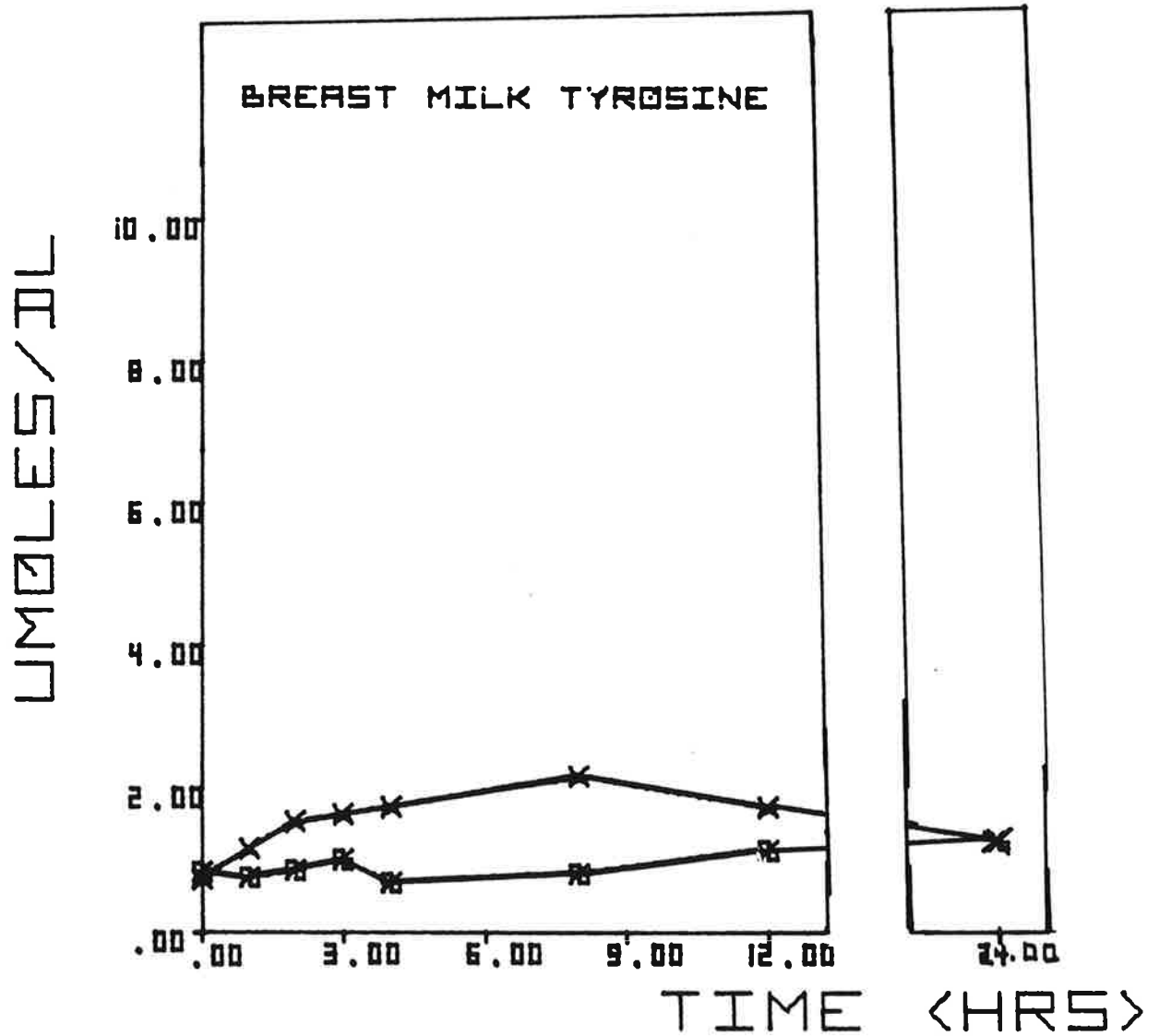


FIGURE 17 (continued): Breast milk tyrosine levels in lactating women administered lactose (□) or ASPARTAME (X) at 50 mg/kg body weight.

Standard deviations are listed in the appended tables.

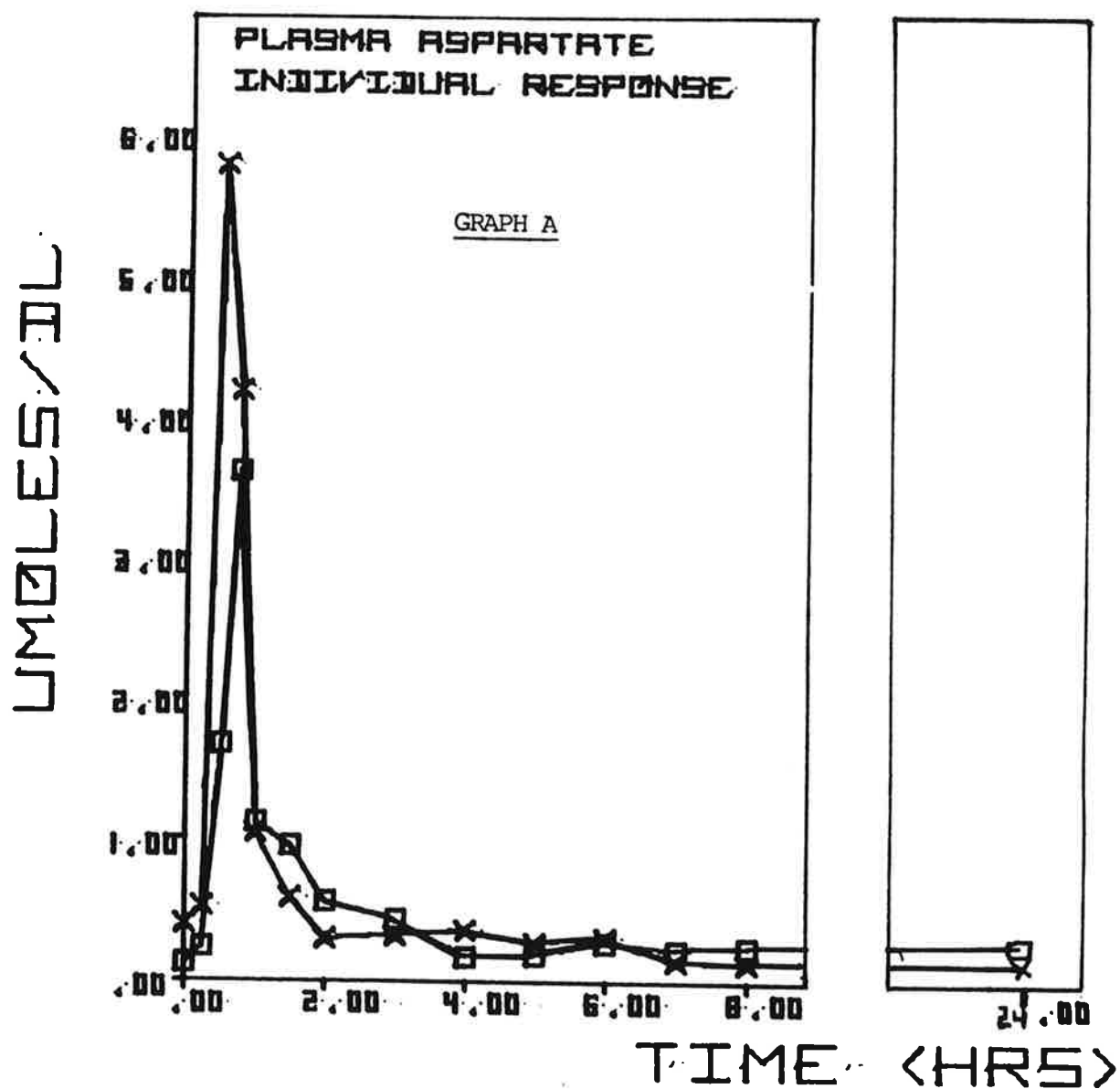


FIGURE 18: Graph A

Variation in individual subjects plasma aspartate levels after ASPARTAME ingestion at 100 mg/kg in slurry form. Note that the other four individuals studied had curves similar to those shown for ASPARTAME ingestion at 100 mg/kg in solution as shown on Graph B (X).

UMLES/TL

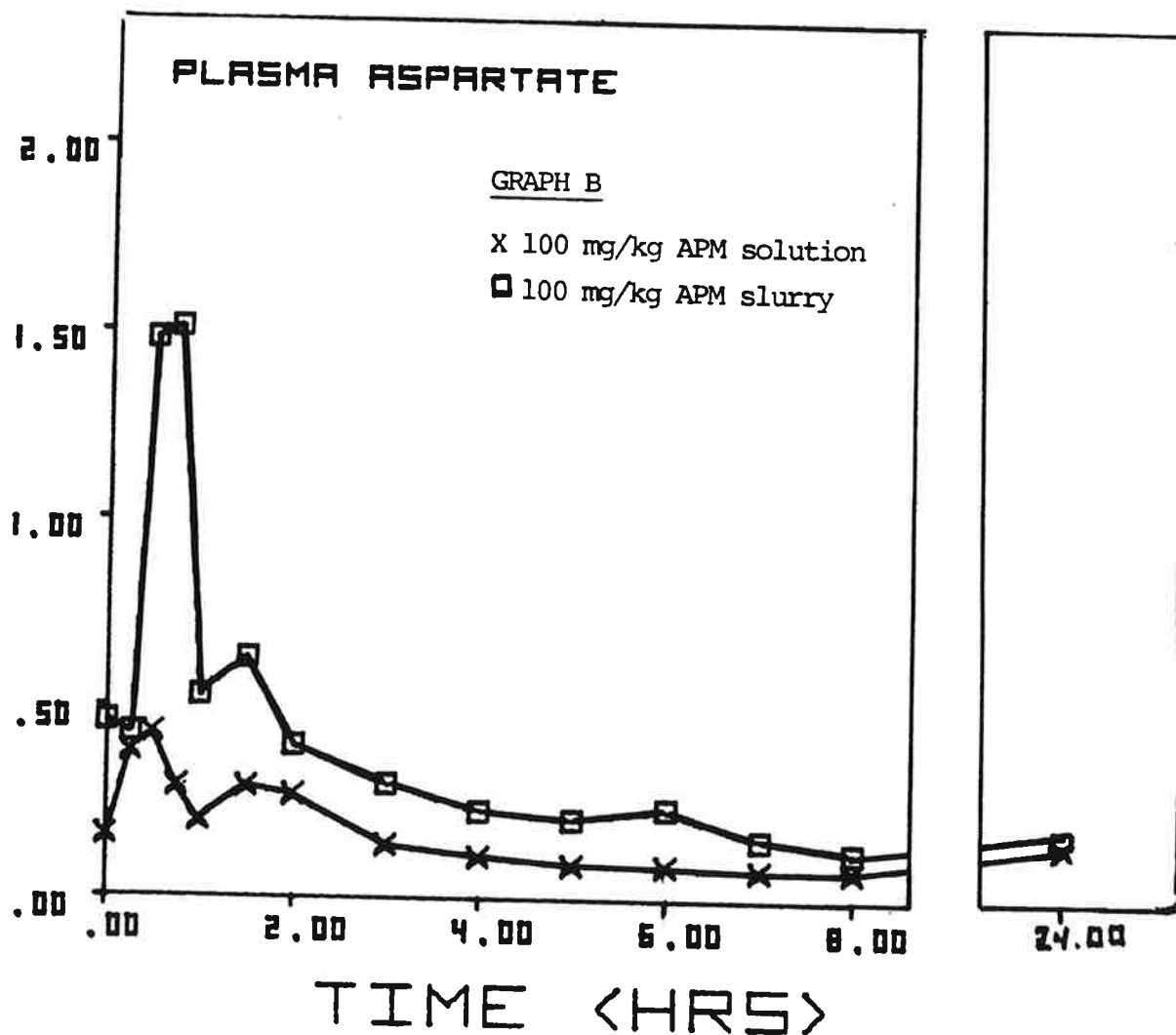


FIGURE 18 (continued): Graph B

Comparison of plasma aspartate levels of six individuals given ASPARTAME at 100 mg/kg either in solution (X) or in slurry (□). The difference in response is due to two individuals shown in Graph A, Figure 18, who had rapid gastric emptying in the slurry part of the test.

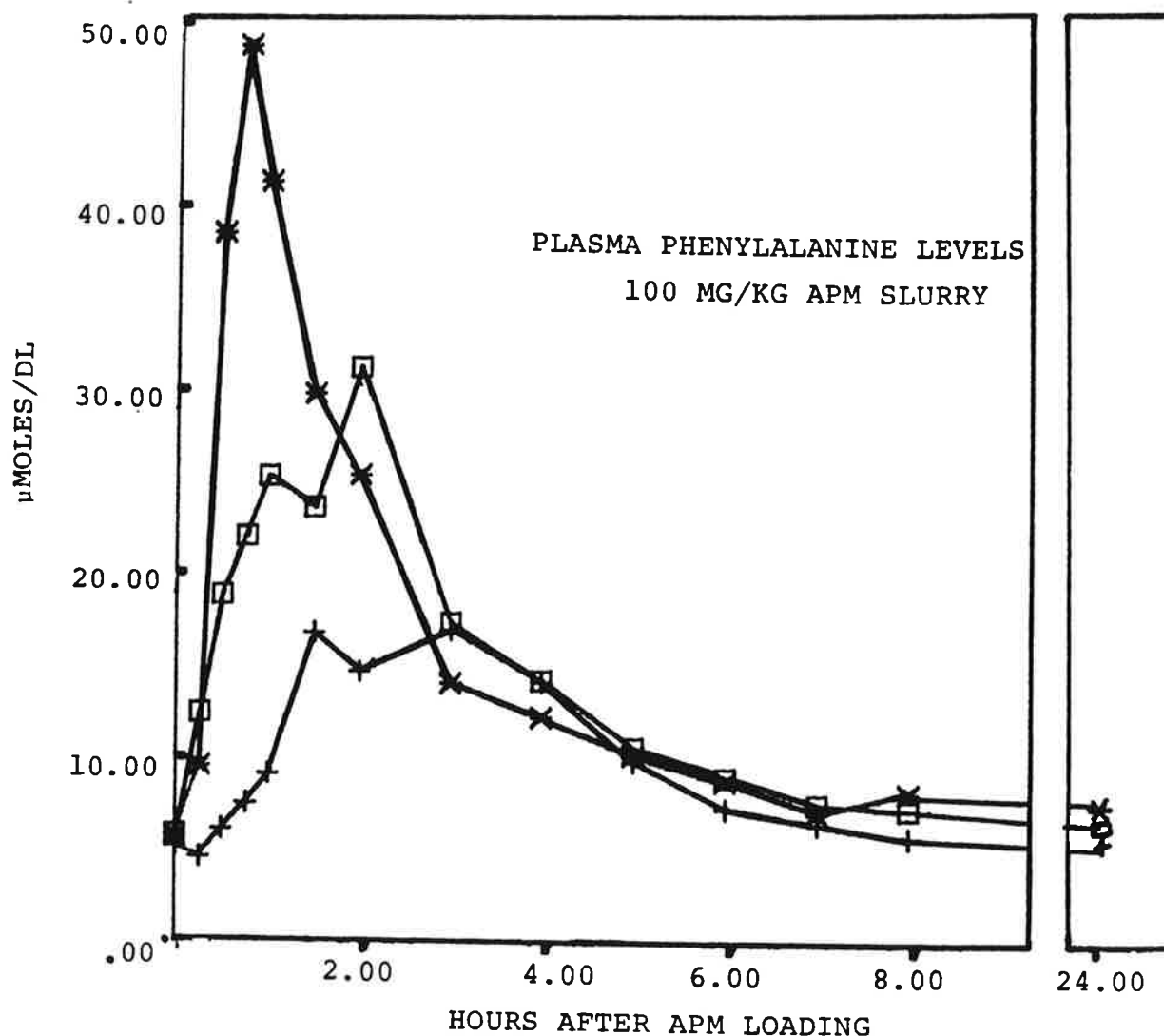


FIGURE 19: Plasma phenylalanine levels in normal volunteers administered ASPARTAME as a slurry at 100 mg/kg body weight. The response of the six subjects studied divided nicely into three groups of two subjects each. The first group had rapid gastric emptying (*), with a rapid peak in phenylalanine levels. The second group (\square) had our usual response, and were identical to subjects receiving ASPARTAME in 500 ml solution. The third group had a delayed gastric emptying time (+), and phenylalanine levels rose more slowly and the peak was lower and broader.

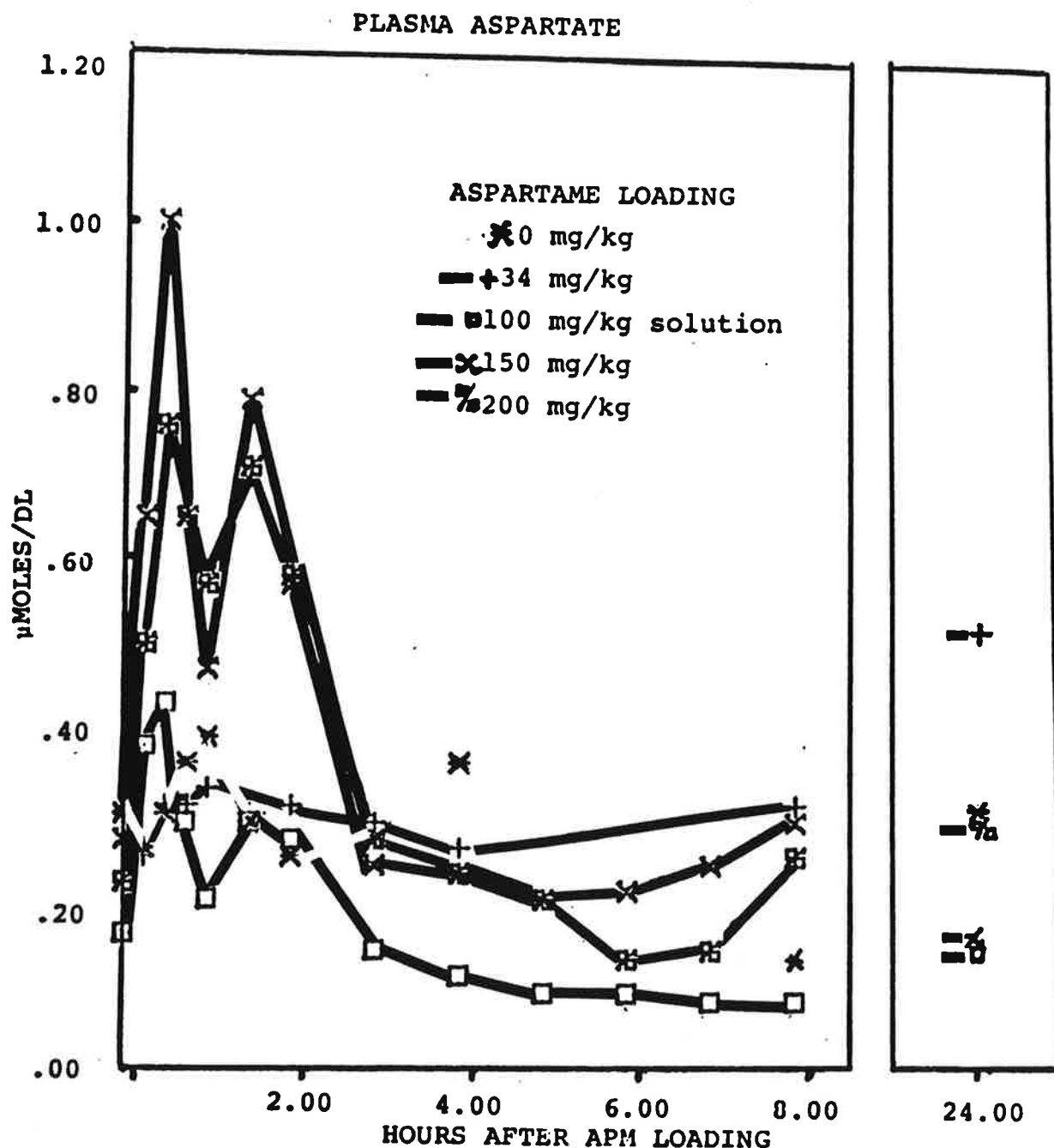


FIGURE 20: Plasma aspartate levels in normal volunteers administered ASPARTAME in orange juice solution. Please note: Because of the accuracy of the Beckman 121M analyzer, small differences in plasma aspartate levels are found. The scale on the graph above has been expanded to demonstrate these differences. All levels observed are below those noted postprandially in young infants fed formula diets (2.5 ± 1.5 μ moles/dl).

PLASMA PHENYLALANINE

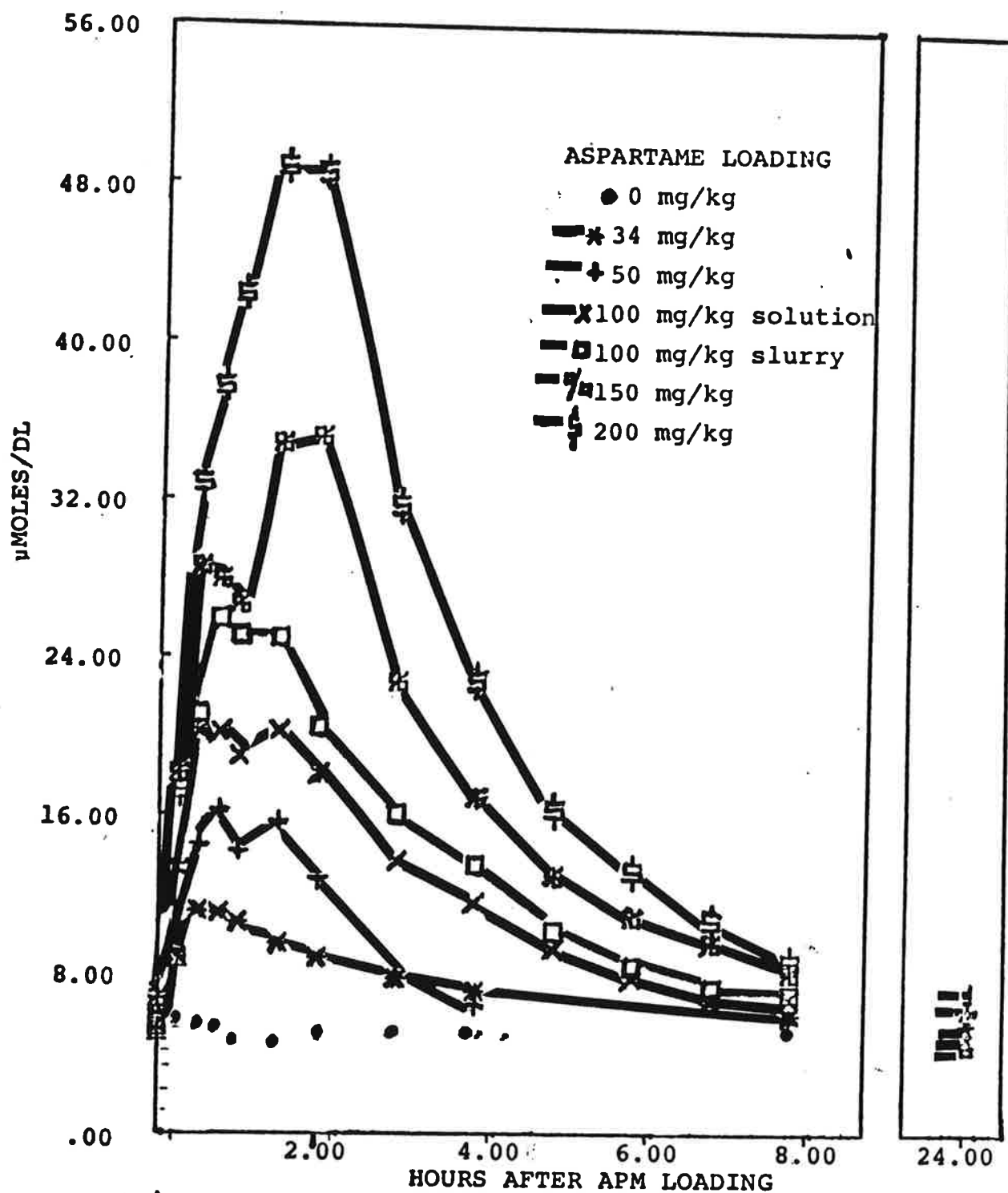


FIGURE 21: Plasma phenylalanine levels in normal volunteers in response to ASPARTAME loading.

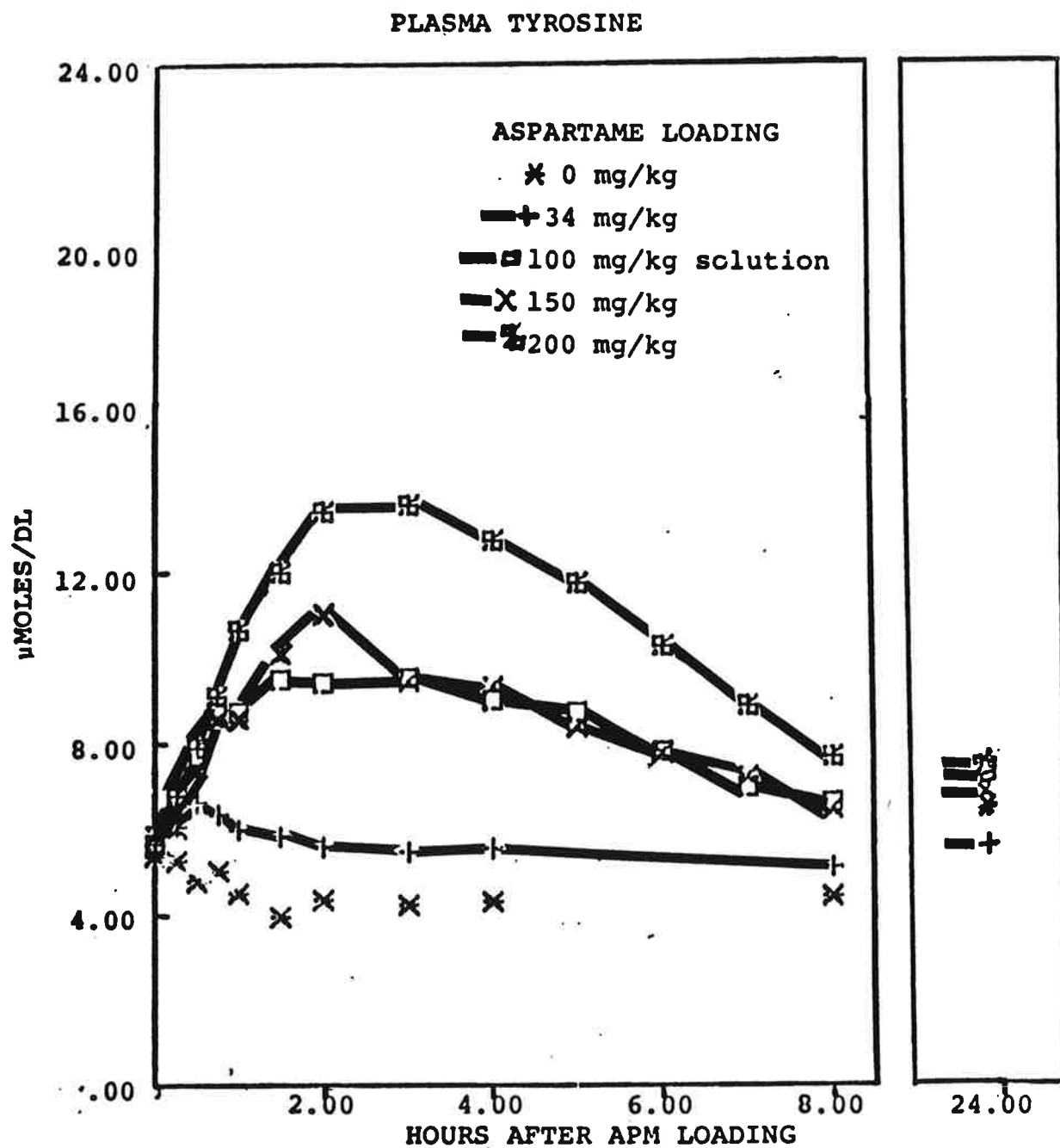


FIGURE 22: Plasma tyrosine levels in normal volunteers in response to ASPARTAME loading.

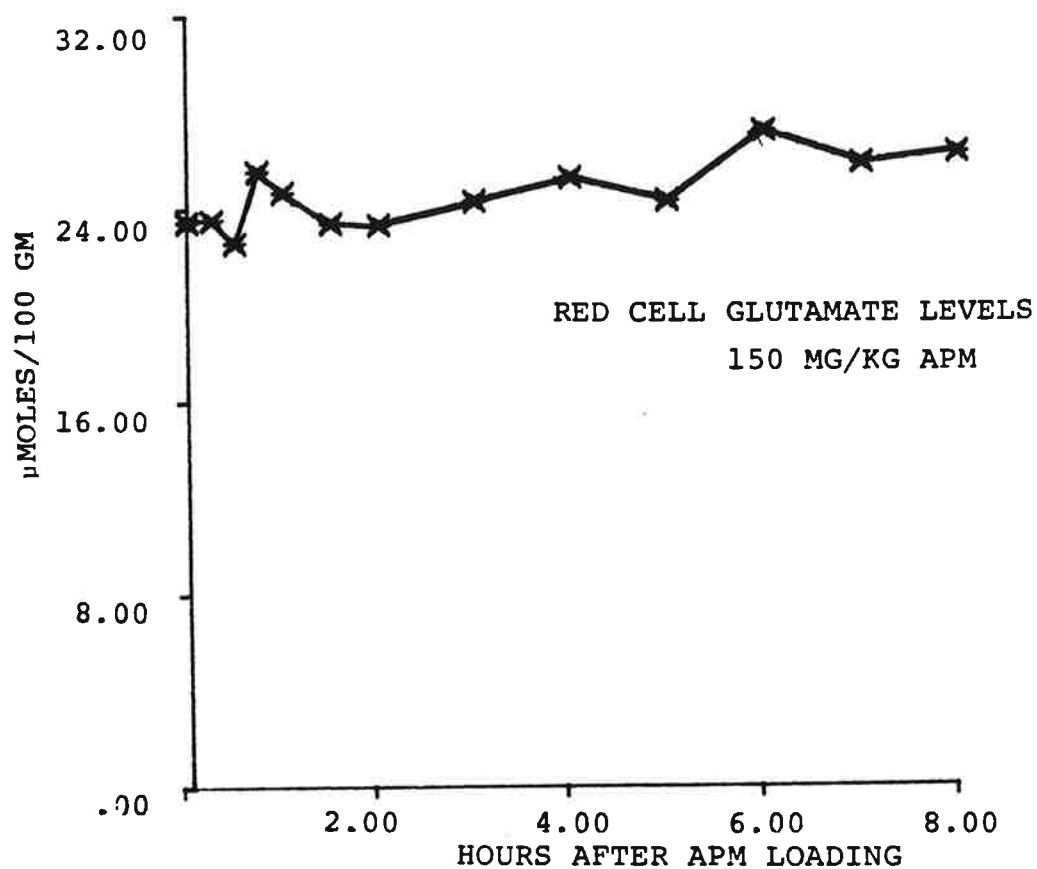
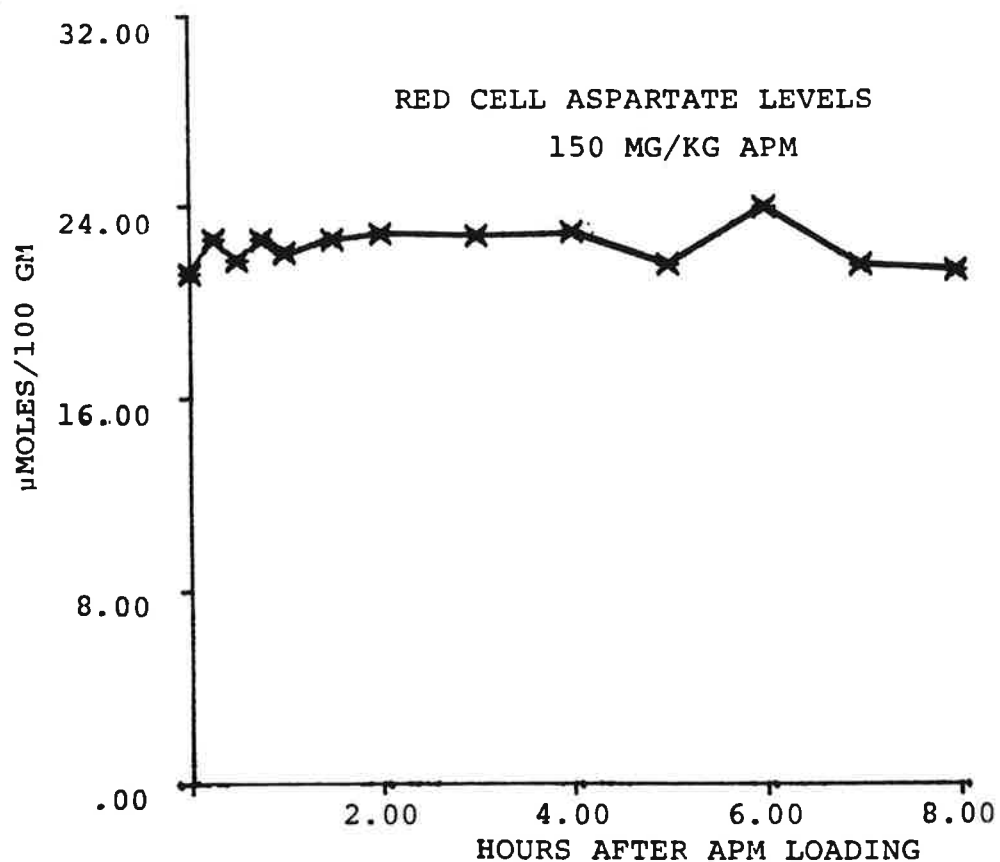
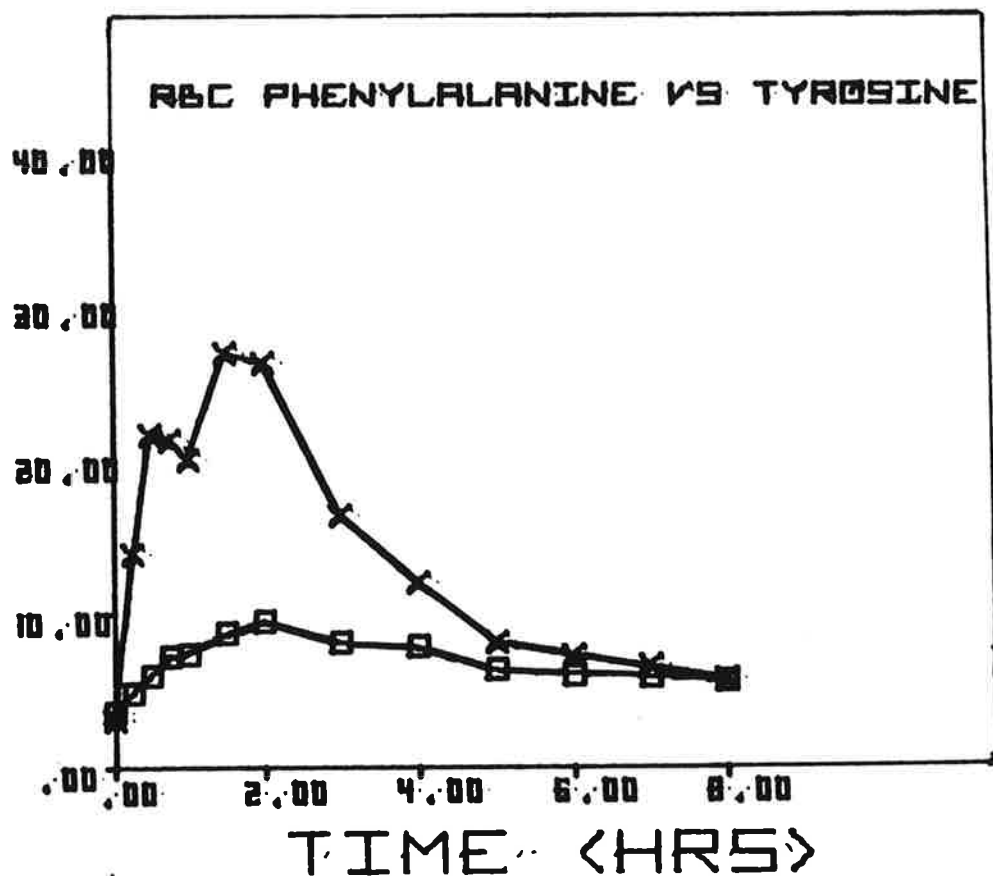


FIGURE 23: Effect of ASPARTAME loading at 150 mg/kg body weight on red cell glutamate and aspartate levels. This similar no effect response was noted at all lower levels and at 200 mg/kg ASPARTAME.

UMLES/100 GMS



UMLES/100

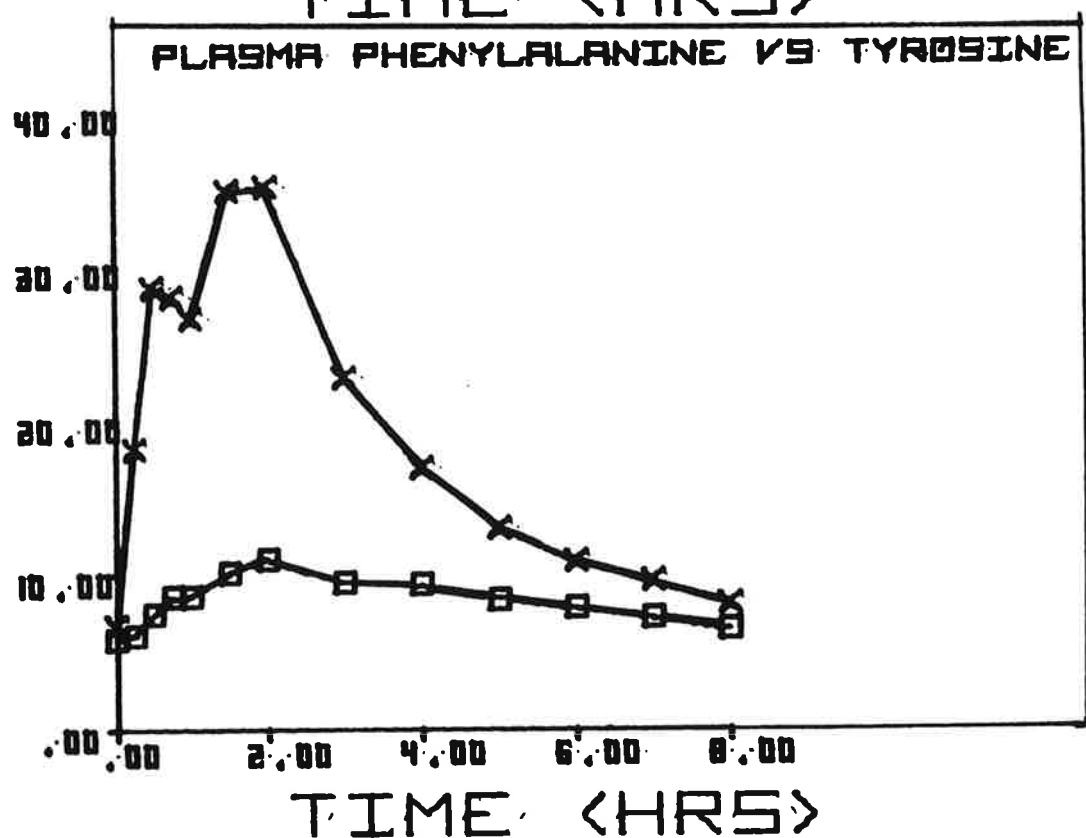


FIGURE 24: Comparative effect of ASPARTAME loading at 150 mg/kg body weight upon plasma and red cell phenylalanine (X) and tyrosine (□) levels.

Standard deviations are listed in the appended tables.

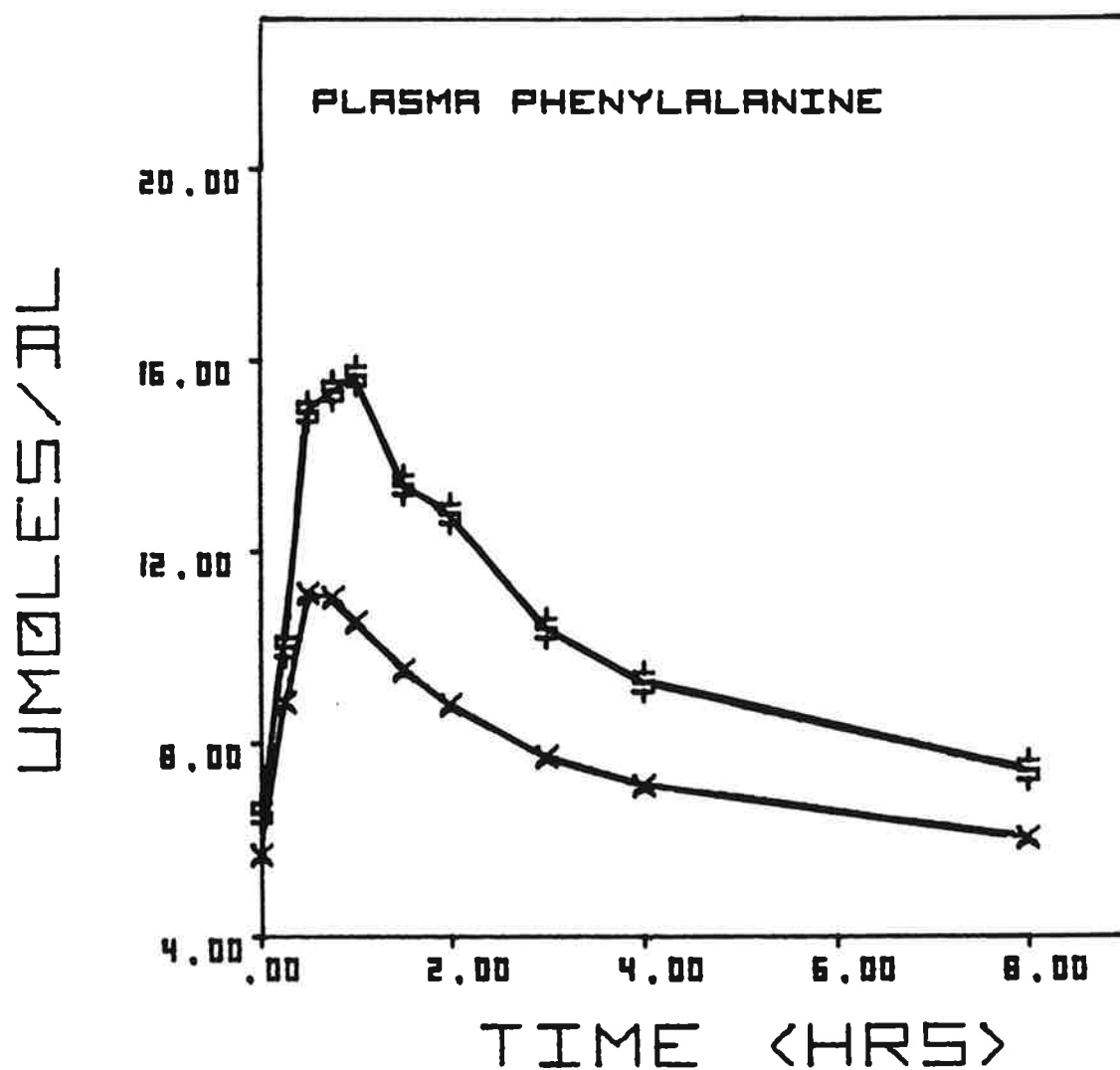


FIGURE 25: Plasma phenylalanine levels in 12 normal subjects (X) and four subjects who are heterozygous for phenylketonuria (\$) after ASPARTAME loading at 34 mg/kg body weight.

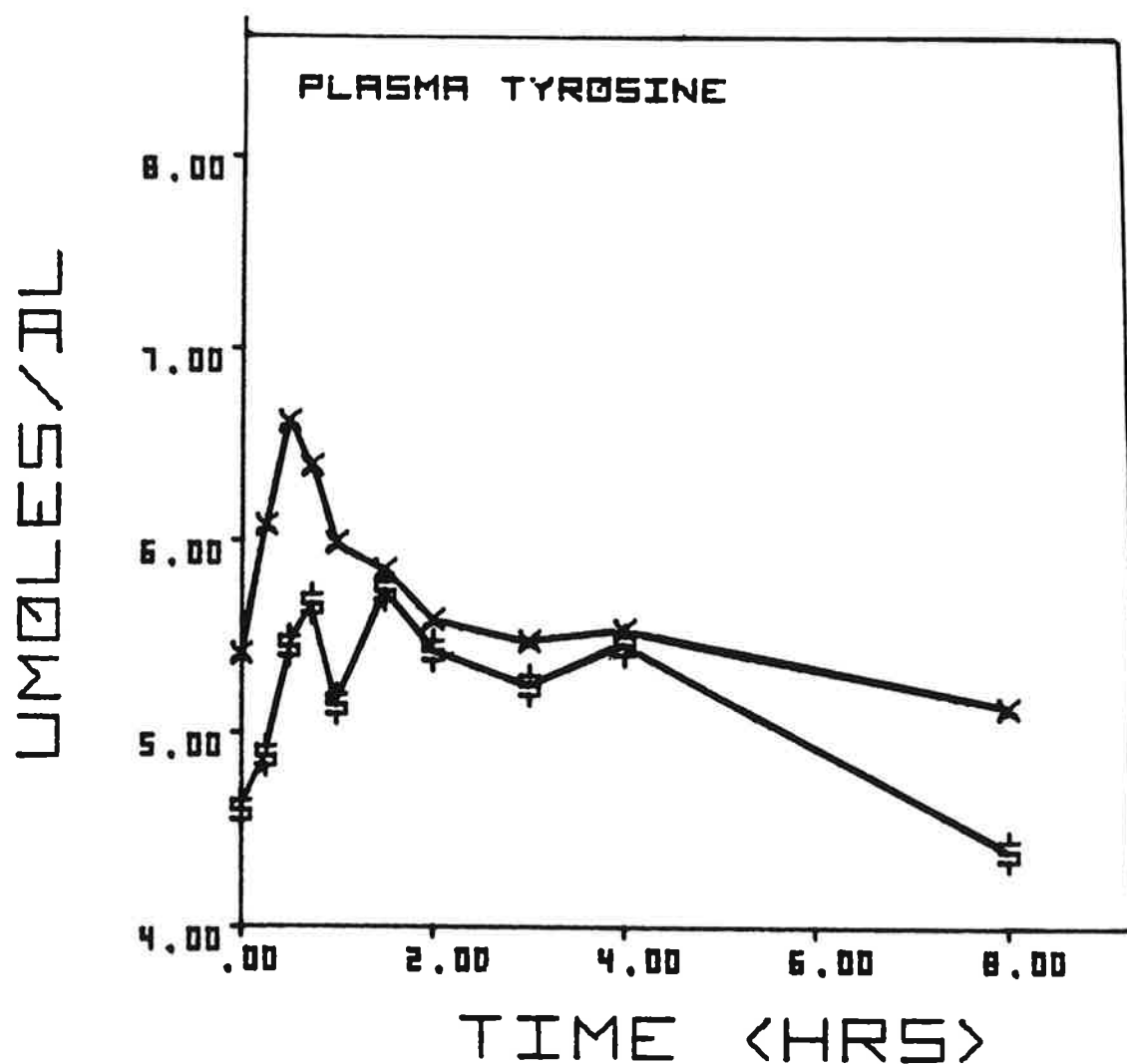


FIGURE 25 (continued): Plasma tyrosine levels in 12 normal subjects (X) and four subjects who are heterozygous for phenylketonuria (\$) after ASPARTAME loading at 34 mg/kg body weight.

UMLES/100 GMS

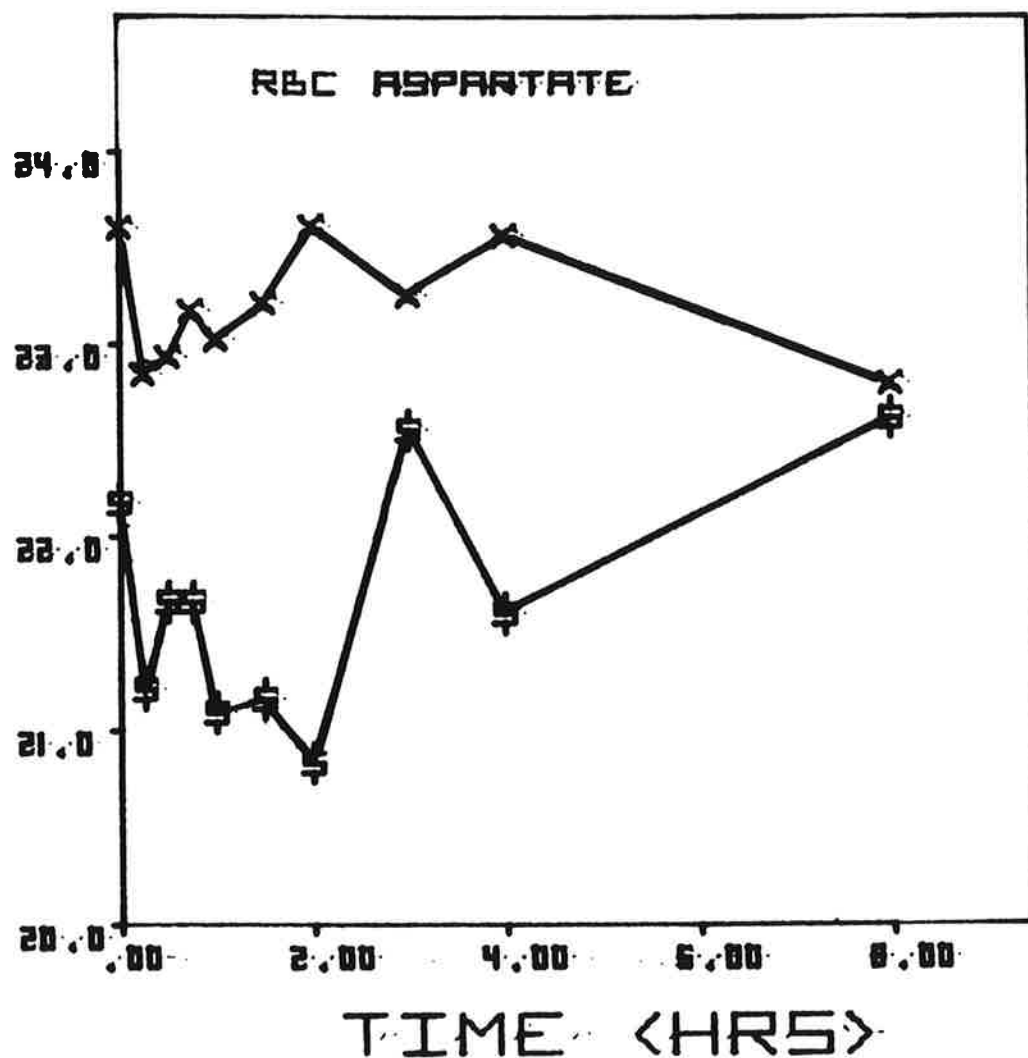


FIGURE 26: Erythrocyte aspartate levels in 12 normal subjects (X) and four subjects who were heterozygous for phenylketonuria (\$) after ASPARTAME administration at 34 mg/kg body weight.

Standard deviations are listed in the appended tables.

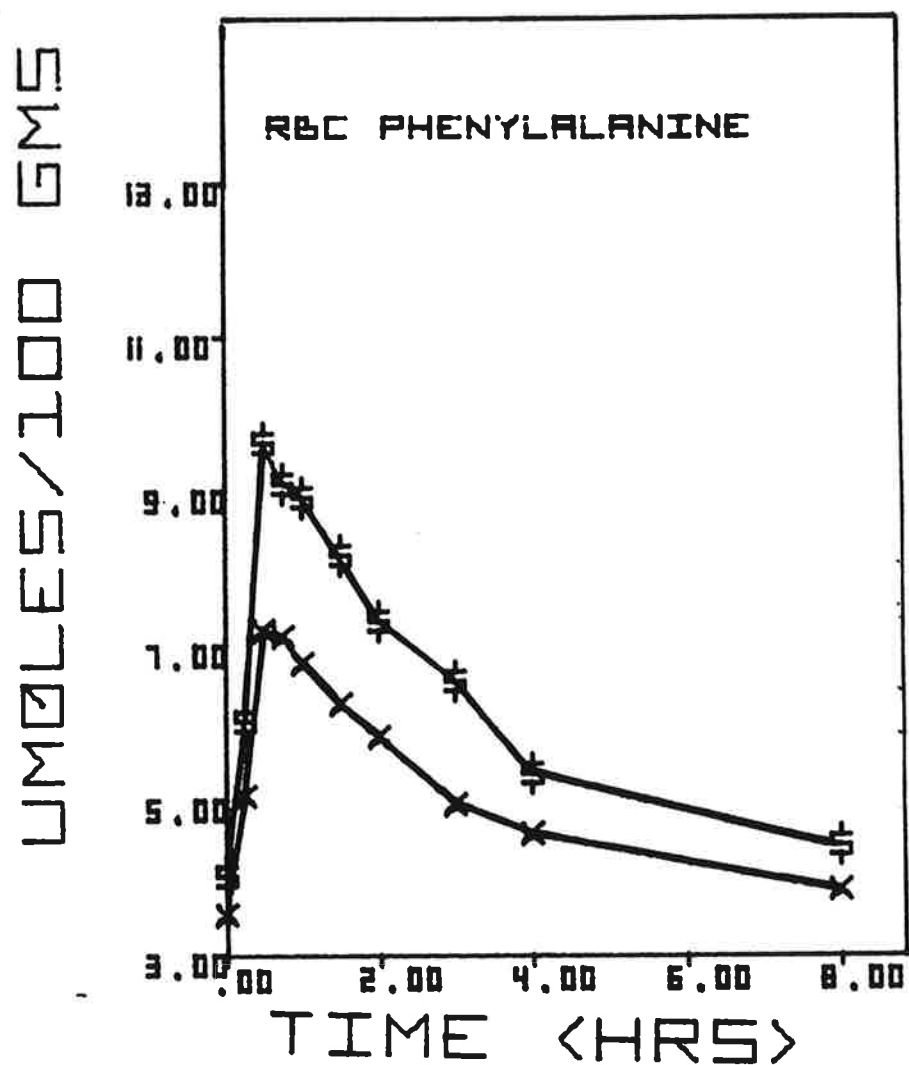


FIGURE 26 (continued); Erythrocyte phenylalanine levels in 12 normal subjects (X) and four subjects who were heterozygous for phenylketonuria (\$) after ASPARTAME administration at 34 mg/kg body weight.

Standard deviations are listed in the appended tables.

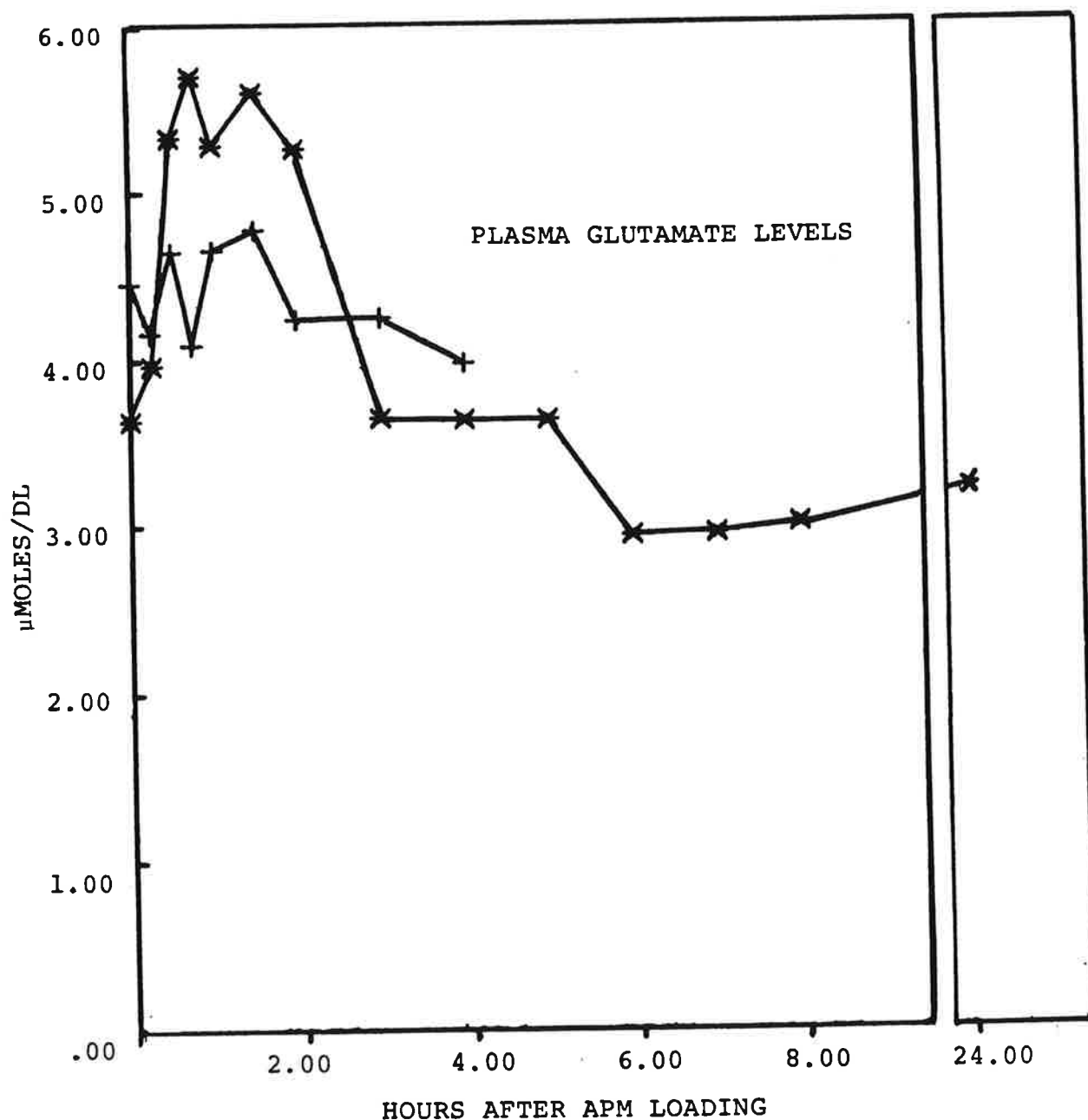


FIGURE 27: Effect of ASPARTAME ingestion on plasma glutamate levels. ASPARTAME administration at all levels (34,50,100,150 & 200 mg/kg) had an identical effect on plasma glutamate levels as shown on the curve (*). A small nearly identical rise in glutamate was noted in each case. However, no dose related effect was noted. Similar results after lactose ingestion are shown in the control curve (+).

BLOOD METHANOL

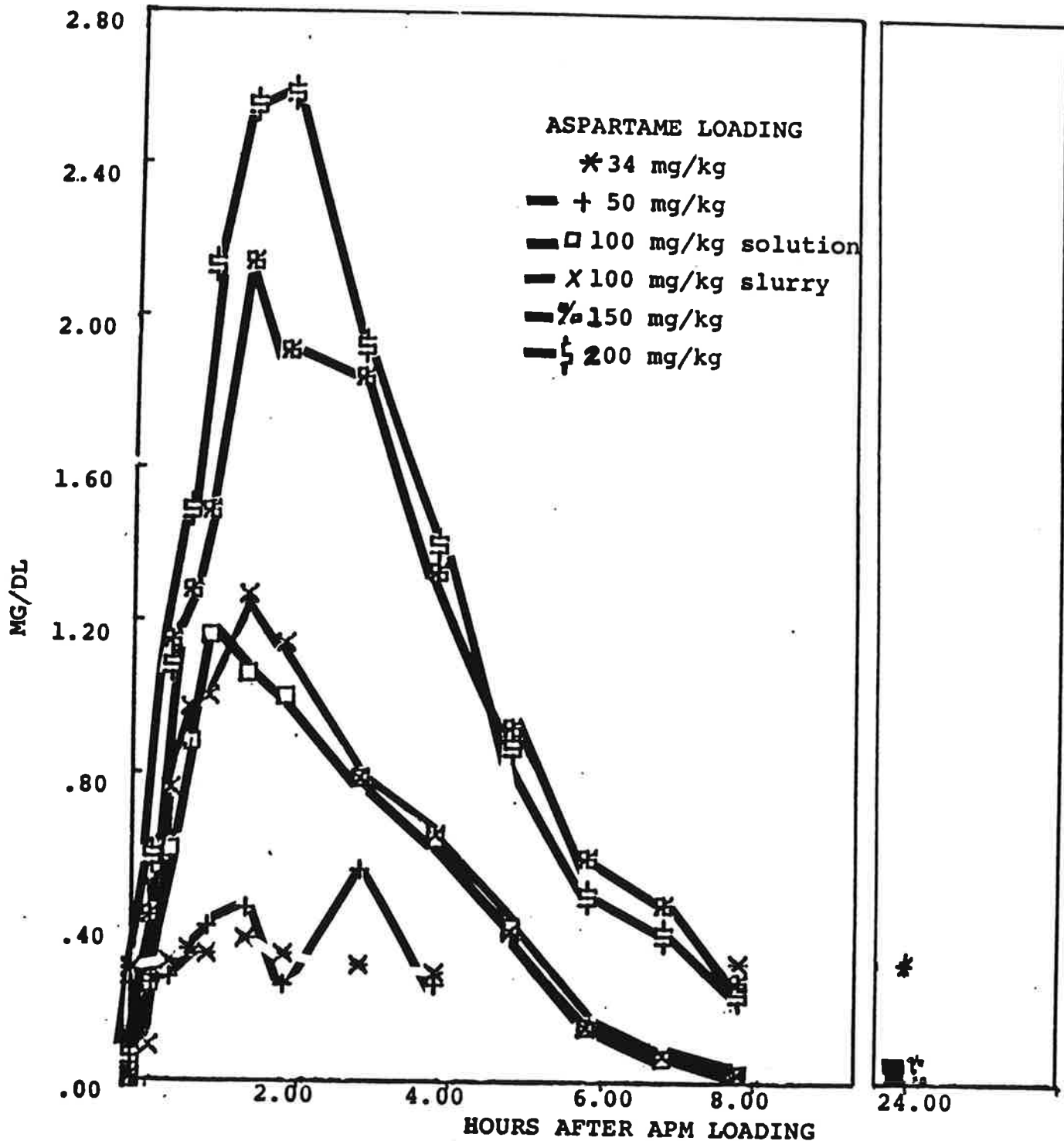


FIGURE 28: Blood methanol curves for 34 and 50 mg/kg ASPARTAME loads were difficult to calculate for the reasons listed in Table XXV. The presence of a normal compound (prior to loading) which coelutes with methanol, requires us to assume that baseline levels are approximately 0.25 mg% (methanol + contaminant). Thus, the 34 and 50 mg/kg curves are calculated on that basis.

Table 1

ESTIMATE OF ASPARTAME INTAKE IN THE 70 KG MAN

CALORIC REQUIREMENT 2500 CAL/DAY

SUCROSE INTAKE (17% OF CALORIES)

<u>CALORIES</u>	<u>SUCROSE</u>	<u>SUCROSE INTAKE</u>	<u>ASPARTAME EQUIVALENT</u>
425	104 gms	1500 mg/kg	7.5-8.5 mg/kg

TOTAL CARBOHYDRATE INTAKE (50% OF CALORIES)

<u>CALORIES</u>	<u>CARBOHYDRATE</u>	<u>SUCROSE EQUIVALENT</u>	<u>ASPARTAME EQUIVALENT</u>
1250	313 gms	4470 mg/kg	23-25 mg/kg

(C) Kelly

Please copy 2X

Tables I → XXV

and Appendices 1-2

1 copy to Kevin for E-93

1 copy to me

AL

TABLE II
Plasma amino acid levels (umoles/dl) in normal subjects administered
ASPARTAME at 34 mg/kg body weight.

PLASMA AMINO ACIDS														
ASPARTAME, DOSE = 34 MG/KG														
VARIABLE IS-TAURINE														
SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
C. MUIRIS	5.35	4.99	4.97	5.46	5.87	3.34	6.43	4.88	5.42	*****	*****	*****	3.33	4.64
F. MEYER	3.41	5.71	3.77	3.87	5.25	5.58	5.55	4.98	4.90	*****	*****	*****	4.72	4.70
D. SMIEL	6.29	5.79	6.38	5.45	6.74	7.92	5.96	7.52	4.29	*****	*****	*****	2.78	5.35
D. UNIAZ	4.81	5.80	4.51	5.84	6.69	5.50	4.92	5.56	5.65	*****	*****	*****	5.05	5.85
K. PUTTE	5.48	4.17	3.53	3.98	4.40	3.95	3.53	3.90	3.66	*****	*****	*****	5.08	4.50
K. CRABE	3.84	4.45	7.63	7.06	4.20	4.13	5.58	5.02	4.33	*****	*****	*****	5.65	7.61
I. VONBIL	7.66	5.71	3.48	4.29	4.32	5.33	6.12	5.18	4.78	*****	*****	*****	4.61	6.12
M. MILLE	4.63	4.54	4.33	4.64	4.30	3.21	3.88	2.63	3.81	*****	*****	*****	6.47	5.64
A. MITT	4.16	4.14	3.68	4.04	4.50	3.68	3.34	3.72	3.58	*****	*****	*****	5.43	4.72
M. MITT	5.76	4.61	5.61	5.65	4.60	3.61	4.40	4.82	4.10	*****	*****	*****	5.55	3.68
V. STIMA	7.40	6.56	4.92	4.76	4.50	4.32	2.82	4.01	3.87	*****	*****	*****	4.98	10.45
L. SMIEL	3.92	4.38	4.42	3.71	3.76	4.65	2.14	1.55	4.32	*****	*****	*****	3.32	2.45
MEAN	5.23	5.07	4.76	4.90	4.93	4.61	4.52	4.48	4.39	0.0	0.0	0.0	4.87	5.49
STD. DEV	1.37	0.80	1.26	1.01	1.02	1.33	1.38	1.50	0.67	0.0	0.0	0.0	1.14	2.00
N	12	12	12	12	12	12	12	12	12	0	0	0	12	12

SEARCH STUDY - INDIVIDUAL DATA

TABLE II

Plasma amino acid levels (umoles/dl) in normal subjects administer ASPARTAME at 34 mg/kg body weight.

ASPARTAME , DCSE = 34 MG/KG

VARIABLE IS ASPARTAME

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
L. SHIEL	0.34	0.08	0.41	0.45	0.33	0.42	0.35	0.33	0.22	*****	*****	*****	0.27	0.42
A. MILLI	0.19	0.21	0.21	0.37	0.35	0.27	0.27	0.25	0.31	*****	*****	*****	0.27	0.21
K. FCITE	0.37	0.23	0.25	0.38	0.42	0.46	0.33	0.24	0.54	*****	*****	*****	0.69	0.81
M. WITTI	0.17	0.15	0.40	0.25	0.23	0.21	0.30	0.10	0.25	*****	*****	*****	0.10	0.43
V. VAGGI	0.30	0.46	0.35	0.42	0.42	0.33	0.31	0.43	0.33	*****	*****	*****	0.47	0.41
V. STIPA	0.31	0.13	0.23	0.09	0.26	0.15	0.14	0.17	0.13	*****	*****	*****	0.16	0.84
K. CRABE	0.31	0.29	0.41	0.26	0.10	0.06	0.31	0.60	0.20	*****	*****	*****	0.59	0.32
D. GUJZ	0.44	0.24	0.21	0.10	0.12	0.40	0.35	0.17	0.10	*****	*****	*****	0.11	0.09
D. SHIEL	0.26	0.38	0.42	0.24	0.26	0.58	0.36	0.46	0.13	*****	*****	*****	0.30	0.44
M. MILLI	0.32	0.17	0.27	0.45	0.82	0.25	0.38	0.21	0.37	*****	*****	*****	0.43	0.41
P. REYER	0.38	0.38	0.31	0.46	0.34	0.26	0.25	0.13	0.17	*****	*****	*****	0.19	0.80
C. MOFIS	0.20	0.23	0.25	0.14	0.15	0.24	0.34	0.33	0.35	*****	*****	*****	0.19	0.53
MEAN	0.30	0.25	0.31	0.31	0.33	0.30	0.31	0.29	0.26	0.0	0.0	0.0	0.31	0.48
STD. DEV	0.08	0.11	0.08	0.15	0.18	0.14	0.06	0.15	0.13	0.0	0.0	0.0	0.19	0.24
N	12	12	12	12	12	12	12	12	12	0	0	0	12	12

PLASMA AMINO ACIDS

ASPARTAME , DCSE = 34 MG/KG

VARIABLE IS THREON

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
C. MURIS	20.77	22.70	23.12	20.01	23.17	20.37	20.58	20.01	20.35	*****	*****	*****	15.75	23.54
P. REYER	12.46	11.17	11.32	9.62	9.67	10.00	10.34	10.06	10.54	*****	*****	*****	10.40	13.72
D. SHIEL	10.24	16.63	16.34	13.84	17.16	15.86	15.66	15.01	14.08	*****	*****	*****	12.00	19.13
C. CRABE	8.67	9.00	9.43	11.90	11.70	9.67	9.78	9.07	10.50	*****	*****	*****	9.36	13.90
K. CRABE	15.21	14.62	17.67	14.23	13.37	10.36	12.98	12.65	11.86	*****	*****	*****	10.40	13.51
T. WINGI	16.09	14.39	9.00	13.45	11.74	13.53	14.11	13.26	14.66	*****	*****	*****	12.01	13.47
K. FCITE	17.70	16.75	12.61	14.71	16.93	15.60	14.88	14.44	13.35	*****	*****	*****	16.57	13.94
A. MILLI	13.30	13.36	12.64	12.57	12.31	11.54	9.93	10.10	11.35	*****	*****	*****	10.85	13.39
M. WITTI	12.30	15.90	15.30	19.00	13.20	13.00	10.50	11.40	10.40	*****	*****	*****	13.80	12.70
V. STIPA	13.18	14.90	11.84	12.97	12.75	11.59	9.54	11.57	9.94	*****	*****	*****	9.01	12.75
M. MILLI	9.25	8.47	8.90	7.59	7.05	6.45	7.26	7.00	7.53	*****	*****	*****	7.46	8.21
L. SHIEL	18.74	20.19	22.51	17.64	18.47	21.55	18.39	14.62	14.95	*****	*****	*****	14.24	17.14
MEAN	14.58	14.86	14.22	13.96	13.98	13.30	12.83	12.43	12.46	0.0	0.0	0.0	11.88	14.62
STD. DEV	3.57	4.14	4.69	3.61	4.32	4.44	4.00	3.40	3.31	0.0	0.0	0.0	2.80	3.82
N	12	12	12	12	12	12	12	12	12	0	0	0	12	12

SEATTLE STUDY - INDIVIDUAL DATA
PLASMA AMINO ACIDS

ASPARTAME , DOSE = 34 MG/KG

VARIABLE IS SERINE

TABLE II Plasma amino acid levels (umoles/dl) in normal subjects administered Aspartame at 34 mg/kg/body weight.

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
L. SHIEL	9.07	11.32	13.01	11.41	12.48	15.49	9.21	5.66	10.79	*****	*****	*****	10.34	9.06
M. MILLE	12.67	12.12	10.70	9.33	10.06	8.76	14.83	7.84	9.15	*****	*****	*****	9.49	9.81
A. MITTI	9.56	10.14	5.66	9.32	9.26	8.53	7.84	8.22	9.23	*****	*****	*****	9.63	10.36
T. VUCCI	17.27	16.26	13.44	12.46	14.73	13.87	14.86	14.65	15.81	*****	*****	*****	14.28	15.23
K. CRAB	12.43	10.25	10.31	10.22	11.20	8.01	10.11	8.90	12.02	*****	*****	*****	12.40	13.50
M. MITTI	12.40	13.40	17.00	13.50	11.00	14.80	12.00	10.00	10.72	*****	*****	*****	12.40	13.50
V. STIMA	8.24	8.42	8.56	7.43	9.05	10.15	10.51	8.15	7.75	*****	*****	*****	6.75	13.65
K. PUTTE	12.11	13.17	10.65	9.72	12.43	9.94	11.39	10.52	5.53	*****	*****	*****	14.60	14.55
C. PLUFFS	15.53	12.46	16.62	12.91	12.31	14.99	13.19	11.54	15.54	*****	*****	*****	10.31	14.33
G. DUAR	10.40	12.70	9.36	11.50	11.10	12.20	9.60	11.50	8.84	*****	*****	*****	13.00	11.55
F. MEYER	11.49	9.70	10.23	8.82	10.40	8.55	12.11	12.00	10.68	*****	*****	*****	10.46	13.25
U. SHIEL	17.24	15.51	15.70	16.20	18.99	22.67	14.67	16.40	16.12	*****	*****	*****	10.93	17.00
MEAN	12.91	12.08	12.54	11.07	11.58	12.38	11.69	10.55	11.38	0.0	0.0	0.0	11.12	12.60
STD. DEV	3.17	2.43	3.40	2.43	2.71	4.24	2.35	3.10	2.90	0.0	0.0	0.0	2.29	2.62
N	12	12	12	12	12	12	12	12	12	0	0	0	12	12

PLASMA AMINO ACIDS

ASPARTAME , DOSE = 34 MG/KG

VARIABLE IS ASPARAGI

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
C. SHIEL	3.84	8.02	5.06	3.97	4.18	4.81	6.95	4.51	2.69	*****	*****	*****	8.27	2.57
K. PUTTE	4.05	5.17	4.51	7.04	6.70	6.49	5.20	4.77	5.27	*****	*****	*****	1.96	5.40
D. BGAZ	5.73	3.70	3.38	8.00	7.50	2.37	4.08	2.05	6.51	*****	*****	*****	2.31	8.00
F. MEYER	4.54	4.81	3.58	2.67	3.92	4.27	4.63	3.78	3.01	*****	*****	*****	4.24	3.05
K. CRAB	2.62	3.00	8.37	6.02	3.50	5.62	3.33	4.00	3.61	*****	*****	*****	4.16	4.77
M. MITTI	2.81	2.83	4.00	7.30	2.20	2.30	2.50	2.22	2.00	*****	*****	*****	4.30	2.15
T. VUCCI	4.07	4.07	4.50	5.71	5.21	6.97	7.35	3.94	5.23	*****	*****	*****	5.08	4.08
A. MITTI	4.01	4.81	6.16	7.82	5.16	6.11	4.80	4.71	3.98	*****	*****	*****	6.01	5.73
V. STIMA	6.00	5.25	6.08	4.27	3.19	3.03	2.09	2.81	2.62	*****	*****	*****	4.20	1.44
L. SHIEL	5.65	5.33	6.34	4.50	2.75	5.30	3.41	3.42	3.73	*****	*****	*****	2.49	6.34
M. MILLE	2.29	4.01	4.78	4.01	1.43	2.72	1.37	2.23	4.53	*****	*****	*****	6.11	3.80
C. PORIS	7.06	7.67	5.73	4.57	7.65	4.11	5.21	6.13	3.42	*****	*****	*****	4.21	3.16
MEAN	4.48	4.89	5.24	5.49	4.45	4.55	4.41	3.71	3.89	0.0	0.0	0.0	4.53	4.21
STD. DEV	1.48	1.61	1.40	1.75	2.04	1.67	1.90	1.24	1.30	0.0	0.0	0.0	1.74	1.91
N	12	12	12	12	12	12	12	12	12	0	0	0	12	12

SEARLE STUDY - INDIVIDUAL DATA
PLASMA AMINO ACIDS

TABLE II Plasma amino acid levels (umoles/dl) in normal subjects
administered Aspartame at 34mg/kg/body weight.

ASPARTAME , DOSE = 34 MG/KG

VARIABLE IS PROLINE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
M. MILLE	17.34	15.25	21.25	20.74	25.06	17.83	19.16	13.84	14.81	*****	*****	*****	10.90	11.15
V. STIPA	23.70	26.62	22.32	28.05	26.55	29.76	28.05	25.55	22.23	*****	*****	*****	13.77	13.35
L. SMITH	13.87	17.74	25.80	19.47	19.86	24.63	17.98	12.40	12.22	*****	*****	*****	10.72	10.28
C. PURIS	13.58	19.98	19.28	19.01	21.19	18.24	24.06	13.31	13.06	*****	*****	*****	17.86	15.81
P. PEYER	13.71	25.00	21.22	20.56	28.39	30.64	28.58	20.20	25.56	*****	*****	*****	24.03	26.19
M. MITTI	18.20	17.00	17.10	21.00	20.30	19.10	18.00	12.70	13.60	*****	*****	*****	15.70	11.60
C. SHILL	25.74	30.60	36.55	36.33	34.68	32.36	25.84	27.45	23.02	*****	*****	*****	21.42	25.52
A. MITTI	32.70	33.60	30.84	35.51	36.66	32.50	22.00	27.60	28.50	*****	*****	*****	23.80	29.90
D. BAZZ	19.40	31.30	33.00	32.60	34.20	35.80	25.60	27.60	24.10	*****	*****	*****	21.60	34.60
I. VECCHI	37.57	35.30	36.55	40.63	41.36	39.53	36.07	39.45	33.29	*****	*****	*****	27.35	21.54
K. CHARR	26.71	30.00	44.07	40.85	40.11	31.90	40.02	31.00	21.68	*****	*****	*****	23.61	24.02
K. PLITE	17.74	19.82	14.95	18.55	21.42	18.47	17.96	16.67	18.94	*****	*****	*****	12.74	12.50
MEAN	22.30	25.27	27.61	27.98	29.16	27.93	25.28	22.82	21.37	0.0	0.0	0.0	18.72	20.35
STD. DEV	7.62	6.91	9.20	8.74	7.95	8.13	7.15	8.79	6.24	0.0	0.0	0.0	5.87	8.52
N	12	12	12	12	12	12	12	12	12	0	0	0	12	12

PLASMA AMINO ACIDS

ASPARTAME , DOSE = 34 MG/KG

VARIABLE IS CITRULLIN

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
K. CRACE	2.81	2.61	2.89	2.00	1.65	1.25	2.39	2.87	3.19	*****	*****	*****	2.63	4.30
T. VONCI	4.60	3.19	1.56	1.99	2.38	2.08	1.98	2.91	3.30	*****	*****	*****	3.14	4.30
E. SPIEL	4.83	4.36	3.70	2.64	3.40	2.61	2.98	3.68	3.82	*****	*****	*****	3.74	3.03
A. MITTI	1.63	1.46	1.23	1.22	1.21	1.00	1.35	1.35	1.27	*****	*****	*****	1.29	1.41
M. MITTI	3.73	3.70	2.80	3.60	2.65	2.64	2.31	2.94	2.90	*****	*****	*****	4.49	3.05
D. BGAZ	2.31	2.78	1.65	2.45	2.40	1.98	2.84	3.23	3.23	*****	*****	*****	3.11	2.61
K. SCOTTE	3.77	3.23	2.23	2.10	1.88	1.87	1.83	1.65	1.65	*****	*****	*****	3.70	3.03
V. STIPA	3.01	3.07	2.25	2.38	2.16	2.14	2.21	2.42	2.81	*****	*****	*****	3.02	4.70
C. MCHIS	2.52	2.15	1.98	0.88	1.38	1.16	1.07	1.92	2.11	*****	*****	*****	2.09	3.33
P. MEYER	3.64	2.64	2.27	2.06	1.69	1.06	1.45	2.52	2.89	*****	*****	*****	3.44	1.55
L. SMITH	2.85	2.36	2.78	2.35	1.52	2.68	2.49	2.28	3.04	*****	*****	*****	3.13	3.70
M. MILLE	3.29	2.70	2.18	2.14	1.67	1.54	2.54	2.71	2.53	*****	*****	*****	2.55	3.61
MEAN	3.25	2.85	2.29	2.15	2.00	1.83	2.12	2.54	2.73	0.0	0.0	0.0	3.03	3.27
STD. DEV	0.93	0.74	0.68	0.68	0.62	0.63	0.60	0.67	0.73	0.0	0.0	0.0	0.84	0.95
N	12	12	12	12	12	12	12	12	12	0	0	0	12	12

SEARCH STUDY - INDIVIDUAL DATA
PLASMA AMINO ACIDS

TABLE II Plasma amino acid levels (umoles/dl) in normal subjects administered Aspartame at 34 mg/kg/body weight.

ASPARTAME , DOSE = 34 MG/KG

VARIABLE IS-ASPARAGINE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
F. MEIER	2.53	2.57	2.41	2.20	2.45	2.29	2.75	2.59	2.91	*****	*****	*****	2.57	3.34
V. STIVA	1.72	1.70	1.62	1.84	1.23	1.25	1.16	1.46	1.91	*****	*****	*****	1.50	1.53
C. MORIS	1.54	1.98	1.54	1.90	1.83	1.90	1.37	1.76	1.82	*****	*****	*****	1.85	2.51
M. PILLE	1.75	1.63	1.53	1.60	1.14	1.14	1.68	1.16	1.67	*****	*****	*****	1.68	2.15
D. SHIEL	2.34	2.56	2.54	2.02	2.18	2.49	2.42	2.10	1.91	*****	*****	*****	1.37	2.07
D. BUZZ	1.64	1.67	1.61	2.46	2.60	1.89	1.88	1.52	2.23	*****	*****	*****	1.39	2.61
A. MITTI	1.72	1.66	1.44	1.51	1.63	1.47	1.59	1.65	1.79	*****	*****	*****	2.03	2.03
K. CHARD	2.04	2.08	3.46	2.07	1.81	1.43	2.02	3.37	2.03	*****	*****	*****	1.89	2.50
T. VLACI	2.13	2.72	1.33	2.18	1.65	2.35	2.31	1.78	2.77	*****	*****	*****	1.87	2.59
K. FOITE	1.05	1.11	1.17	1.81	1.26	1.67	1.03	0.56	1.09	*****	*****	*****	2.19	1.36
L. SHIEL	1.57	1.07	0.65	0.76	0.90	1.35	0.91	0.66	0.95	*****	*****	*****	0.90	10.32
M. MITTI	1.67	2.50	1.70	2.10	2.00	2.08	1.20	1.72	1.38	*****	*****	*****	2.56	1.54
MEAN	1.64	1.54	1.83	1.87	1.75	1.78	1.73	1.73	1.87	0.0	0.0	0.0	1.50	2.95
STD. DEV	0.39	0.56	0.70	0.44	0.53	0.46	0.60	0.72	0.57	0.0	0.0	0.0	0.45	2.40
N	12	12	12	12	12	12	12	12	12	0	0	0	12	12

PLASMA AMINO ACIDS

ASPARTAME , DOSE = 34 MG/KG

VARIABLE IS-VALINE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
M. MITTI	15.20	16.80	16.70	19.40	12.90	13.00	9.20	12.76	12.20	*****	*****	*****	17.60	16.10
K. FOITE	16.11	17.23	14.15	15.92	14.03	12.78	13.39	14.47	13.45	*****	*****	*****	16.21	14.09
A. MITTI	29.90	29.60	27.70	30.90	25.30	42.40	21.30	21.80	23.50	*****	*****	*****	23.50	27.00
C. MORIS	19.83	17.14	16.00	17.07	15.55	15.25	17.27	14.57	20.84	*****	*****	*****	15.11	21.23
T. VLACI	30.34	25.49	28.18	24.57	21.33	20.80	20.06	22.52	12.85	*****	*****	*****	22.80	17.41
L. SHIEL	17.00	16.49	15.75	12.82	12.92	14.91	10.89	12.05	12.95	*****	*****	*****	13.95	15.16
P. PILLE	20.16	19.34	19.76	16.78	15.18	14.53	15.62	12.67	18.43	*****	*****	*****	18.50	21.33
D. BUZZ	20.80	26.00	16.90	24.60	22.70	19.60	20.10	21.60	23.50	*****	*****	*****	23.90	29.20
K. CHARD	26.25	25.00	32.13	28.13	20.16	20.01	23.91	24.82	22.39	*****	*****	*****	23.41	24.11
V. STIVA	27.10	28.39	23.12	23.93	22.60	21.17	16.02	20.37	18.83	*****	*****	*****	21.00	21.05
P. MEYER	31.05	27.86	29.05	25.33	28.07	29.97	29.76	27.58	26.40	*****	*****	*****	31.62	33.23
C. SHIEL	23.93	26.05	22.16	19.55	21.45	21.64	17.30	18.44	17.01	*****	*****	*****	19.75	21.59
MEAN	23.14	22.55	21.72	21.62	19.36	18.84	18.23	18.65	19.78	0.0	0.0	0.0	20.61	22.62
STD. DEV	5.73	5.10	6.08	5.45	5.10	4.58	5.63	5.22	5.21	0.0	0.0	0.0	4.67	5.86
N	12	12	12	12	12	12	12	12	12	0	0	0	12	12

SEATTLE STUDY - INDIVIDUAL DATA
PLASMA AMINO ACIDS

TABLE II Plasma amino acid levels (umoles/dl) in normal subjects administered Aspartame at 34 mg/kg/body weight.

ASPARTAME DOSE = 34 MG/KG

VARIABLE IS CYSITINE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
D. RUZ	12.10	11.20	8.50	11.20	12.20	9.51	10.20	9.22	10.16	*****	*****	*****	10.20	10.20
K. CRAB	10.63	10.84	12.98	12.32	11.10	9.11	11.04	10.64	12.19	*****	*****	*****	11.47	10.67
C. SHIEL	10.04	9.75	5.61	5.40	11.07	6.50	10.01	9.41	10.85	*****	*****	*****	11.22	5.28
V. STIVA	9.75	10.03	8.24	10.86	7.09	7.82	5.98	8.02	9.23	*****	*****	*****	9.79	10.27
P. KEVER	13.31	10.11	12.72	12.26	11.15	11.52	11.54	10.59	10.25	*****	*****	*****	14.98	13.11
T. VUCI	11.66	9.68	10.58	10.47	9.32	8.53	8.04	5.65	16.50	*****	*****	*****	2.03	8.03
A. MITTI	8.91	3.65	8.65	9.00	10.01	8.30	8.81	3.91	8.61	*****	*****	*****	8.41	8.30
C. MOFIS	11.14	9.60	5.11	10.84	5.74	11.22	10.64	8.26	9.74	*****	*****	*****	5.26	21.15
M. MILLS	9.93	9.84	14.25	10.20	10.03	9.48	13.41	12.29	10.87	*****	*****	*****	10.40	9.15
K. PUTTE	8.91	7.64	7.66	9.31	7.88	7.73	7.52	6.01	6.93	*****	*****	*****	10.02	8.55
L. SHIEL	9.59	10.31	10.25	8.74	8.58	11.16	6.35	11.28	10.11	*****	*****	*****	8.06	13.02
M. MITTI	8.42	9.50	9.88	9.70	8.60	8.17	6.97	7.54	6.85	*****	*****	*****	5.58	6.97
MEAN	10.37	9.75	10.27	10.27	9.78	9.35	9.38	5.41	10.25	0.0	0.0	0.0	10.24	10.53
STD. DEV	1.45	0.93	2.08	1.32	1.42	1.30	2.14	1.74	2.62	0.0	0.0	0.0	1.77	3.68
N	12	12	12	12	12	12	12	12	12	0	0	0	12	12

PLASMA AMINO ACIDS

ASPARTAME DOSE = 34 MG/KG

VARIABLE IS METHION

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
K. FETITE	2.68	2.81	2.27	2.57	2.30	1.99	1.85	2.32	1.87	*****	*****	*****	2.31	2.70
M. MITTI	2.14	2.67	2.52	2.55	2.17	2.01	1.74	1.64	1.70	*****	*****	*****	2.18	1.93
L. SHIEL	2.91	2.56	2.55	1.91	2.04	2.13	1.83	2.60	2.16	*****	*****	*****	1.81	2.70
M. WILLE	2.16	2.55	1.91	1.66	1.43	1.56	2.05	1.92	2.86	*****	*****	*****	2.17	2.23
C. MORIS	2.49	2.73	2.85	2.59	2.16	2.24	2.30	2.02	2.07	*****	*****	*****	2.22	2.59
I. VUCI	2.79	3.83	2.65	2.65	1.81	2.12	2.18	2.36	4.20	*****	*****	*****	2.53	2.48
A. MITTI	4.75	3.68	4.16	2.70	3.96	2.60	2.43	2.97	3.04	*****	*****	*****	4.08	4.58
P. KEVER	3.36	2.49	2.78	2.22	2.05	1.97	2.08	2.30	2.36	*****	*****	*****	3.14	3.46
V. STIVA	2.33	2.17	1.58	1.89	2.03	1.81	1.29	1.51	1.77	*****	*****	*****	1.77	2.54
D. SHIEL	2.50	2.71	2.98	2.47	2.52	2.35	2.27	2.54	2.93	*****	*****	*****	3.51	3.66
D. RUZ	2.01	2.26	1.63	2.44	2.06	1.79	1.77	1.84	2.44	*****	*****	*****	2.36	3.50
K. CRAB	3.00	2.75	3.21	2.54	2.21	1.93	2.07	2.06	2.40	*****	*****	*****	1.64	2.92
MEAN	2.79	2.80	2.63	2.35	2.24	2.06	1.99	2.22	2.48	0.0	0.0	0.0	2.48	2.94
STD. DEV	0.74	0.50	0.67	0.35	0.61	0.32	0.32	0.35	0.73	0.0	0.0	0.0	0.74	0.73
N	12	12	12	12	12	12	12	12	12	0	0	0	12	12

SCARLE STUDY - INDIVIDUAL DATA
PLASMA AMINO ACIDS

TABLE II Plasma amino acid levels (umoles/dl) in normal subjects
administered Aspartame at 34 mg/kg/body weight.

ASPARTAME , DOSE = 34 MG/KG

VARIABLE IS ISOLEUCIN

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
3. B.22	6.02	7.11	5.11	6.56	5.68	4.90	4.93	6.51	6.90	*****	*****	*****	7.38	10.30
K. CRAEB	6.20	5.87	8.24	6.80	4.50	3.89	4.78	5.16	4.83	*****	*****	*****	5.57	6.89
P. MEYER	10.30	10.39	8.01	7.63	8.05	7.55	7.62	8.12	8.19	*****	*****	*****	9.54	11.55
V. STIMA	5.50	6.77	5.17	4.76	4.48	3.97	2.97	3.55	3.58	*****	*****	*****	5.10	5.14
C. SHIEL	7.25	7.03	6.26	7.15	5.52	4.51	4.05	4.90	4.33	*****	*****	*****	5.95	9.78
A. MITTI	10.03	7.71	9.30	7.93	7.77	5.42	4.01	5.16	5.84	*****	*****	*****	8.91	9.45
T. VUANGI	8.03	6.74	8.01	8.02	5.78	5.53	5.23	5.05	7.04	*****	*****	*****	4.38	8.12
K. FCHTE	5.39	5.60	4.62	4.31	5.05	3.04	3.11	3.91	3.74	*****	*****	*****	5.30	4.78
C. MOFIS	4.47	2.87	3.38	3.30	2.87	2.56	3.07	3.56	4.28	*****	*****	*****	4.05	6.07
L. SHIEL	4.53	4.34	3.52	2.74	2.62	2.55	2.19	2.31	2.75	*****	*****	*****	4.08	4.35
M. MITTI	3.99	4.62	4.54	4.44	3.95	3.02	2.11	3.50	3.41	*****	*****	*****	5.08	3.83
M. MILLS	5.76	7.24	5.85	4.59	3.90	3.53	5.11	3.86	5.64	*****	*****	*****	5.41	7.41
MEAN	6.49	6.35	5.56	5.09	5.02	4.21	4.15	4.71	5.04	0.0	0.0	0.0	6.06	7.31
STD. DEV	2.05	1.91	1.78	1.87	1.69	1.48	1.57	1.47	1.65	0.0	0.0	0.0	1.74	2.56
N	12	12	12	12	12	12	12	12	12	0	0	0	12	12

PLASMA AMINO ACIDS

ASPARTAME , DOSE = 34 MG/KG

VARIABLE IS LEUCINE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
T. VUANGI	14.05	15.24	17.16	14.91	10.36	10.20	5.56	12.03	16.41	*****	*****	*****	14.14	19.41
M. MILLS	10.09	13.38	10.27	8.02	6.33	6.20	9.16	9.24	11.16	*****	*****	*****	10.56	12.41
L. SHIEL	10.87	9.87	5.31	6.44	6.50	6.09	5.62	9.17	9.27	*****	*****	*****	8.96	10.35
M. MITTI	7.95	9.39	8.94	8.91	6.80	5.79	4.98	6.61	7.20	*****	*****	*****	11.03	7.79
C. MURIS	11.24	11.35	10.24	8.89	9.22	7.53	8.32	5.44	10.96	*****	*****	*****	11.72	11.73
K. FCHTE	11.00	11.13	9.85	8.19	7.83	6.46	6.72	8.88	5.50	*****	*****	*****	10.39	9.57
A. MITTI	18.85	16.45	15.80	13.70	14.70	12.53	11.30	12.70	14.50	*****	*****	*****	18.10	18.40
C. SHIEL	14.32	12.97	15.10	9.54	11.39	5.17	5.56	10.39	11.66	*****	*****	*****	15.87	17.35
V. STIMA	14.11	15.74	12.08	10.70	10.26	9.15	8.27	10.08	9.29	*****	*****	*****	12.07	15.81
C. FCHTE	11.50	14.30	10.27	13.40	12.05	9.70	9.99	11.50	13.90	*****	*****	*****	14.60	15.40
K. CRAEB	15.32	14.27	16.27	13.26	11.11	10.00	5.87	11.24	12.54	*****	*****	*****	11.57	13.59
P. MEYER	22.89	18.99	20.57	17.42	14.98	14.45	14.64	15.82	17.57	*****	*****	*****	24.93	21.85
MEAN	13.55	13.62	12.99	11.15	10.14	8.94	9.00	10.59	11.73	0.0	0.0	0.0	13.77	14.57
STD. DEV	4.10	2.88	3.83	3.33	2.58	2.70	2.58	2.32	3.53	0.0	0.0	0.0	4.34	4.34
N	12	12	12	12	12	12	12	12	12	0	0	0	12	12

SEARCH STUDY - INDIVIDUAL DATA
PLASMA AMINO ACIDS

TABLE II Plasma amino acid levels (μ moles/dl) in normal subjects
administered ASPARTAME at 34 mg/kg/body weight.

ASPARTAME + DCSE = 34 MG/KG
VARIABLE IS TYROSINE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
V. STIVA	5.17	4.59	5.51	4.90	4.47	4.23	3.59	4.09	3.82	*****	*****	*****	3.41	4.51
K. POITE	3.85	3.75	5.30	4.39	4.12	3.71	3.66	3.96	2.33	*****	*****	*****	3.62	3.65
P. MEYER	7.09	7.07	7.53	7.30	6.33	6.46	6.47	6.42	6.29	*****	*****	*****	7.26	6.96
A. MITTI	7.30	8.15	7.51	8.22	8.35	7.78	6.78	6.61	7.44	*****	*****	*****	6.00	7.32
K. CRABBE	5.75	8.12	7.51	7.18	6.25	5.65	5.62	5.30	5.33	*****	*****	*****	4.00	5.28
C. MCWIS	3.40	4.51	4.73	4.48	4.48	4.25	4.68	4.01	4.11	*****	*****	*****	3.55	4.02
C. BUDZ	4.29	6.00	5.30	7.80	7.38	6.67	6.58	5.85	6.44	*****	*****	*****	5.62	6.75
D. SHIEL	7.14	8.00	10.30	7.42	8.65	8.07	8.05	7.07	7.53	*****	*****	*****	6.93	6.78
M. MITTI	5.12	5.12	5.33	6.41	4.93	4.94	4.27	4.75	4.11	*****	*****	*****	5.20	3.66
N. MILLE	5.77	7.31	7.43	5.21	6.12	8.10	7.39	6.22	6.43	*****	*****	*****	5.46	5.16
L. SHIEL	3.73	3.86	4.45	3.46	3.83	3.67	3.63	4.70	4.27	*****	*****	*****	4.24	3.90
T. VANGI	6.59	6.40	8.15	8.90	6.47	6.61	6.40	6.81	8.33	*****	*****	*****	5.62	5.58
MEAN	5.41	6.08	6.62	6.39	5.59	5.85	5.59	5.48	5.54	0.0	0.0	0.0	5.14	5.37
STD. DEV	1.52	1.66	1.77	1.72	1.67	1.67	1.57	1.16	1.82	0.0	0.0	0.0	1.38	1.43
N	12	12	12	12	12	12	12	12	12	0	0	0	12	12

PLASMA AMINO ACIDS

ASPARTAME + DCSE = 34 MG/KG

VARIABLE IS PHENYLAL

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
L. SHIEL	4.42	6.53	9.86	7.34	7.94	7.63	6.49	7.11	5.25	*****	*****	*****	4.23	5.10
T. VANGI	8.29	11.18	15.02	22.22	13.76	14.19	17.43	12.29	13.36	*****	*****	*****	8.05	7.36
N. MILLE	5.50	9.71	11.53	10.18	9.45	8.99	10.57	7.35	7.54	*****	*****	*****	5.74	5.15
M. MITTI	4.40	7.73	8.02	8.86	8.64	8.16	6.94	7.10	5.03	*****	*****	*****	6.05	3.84
C. BUDZ	4.32	7.05	8.82	11.50	12.20	9.24	8.39	6.82	7.18	*****	*****	*****	6.05	5.80
K. CRABBE	5.43	14.10	14.07	14.51	10.50	8.41	3.50	7.32	7.10	*****	*****	*****	5.47	5.51
G. SHIEL	6.23	9.11	14.55	10.03	12.37	10.81	9.39	8.02	7.19	*****	*****	*****	7.25	8.51
C. MOHIS	5.05	10.51	10.83	9.45	11.02	9.39	8.73	7.05	6.16	*****	*****	*****	4.55	5.69
K. POITE	5.26	7.30	8.66	8.15	9.80	8.70	8.49	7.15	3.89	*****	*****	*****	5.00	5.24
V. STIVA	5.47	7.35	10.00	8.13	8.58	7.82	6.36	6.45	6.42	*****	*****	*****	5.23	5.58
A. MITTI	6.12	7.98	9.82	10.70	11.31	9.90	8.41	7.15	7.64	*****	*****	*****	6.18	6.29
P. MEYER	7.37	7.36	10.54	11.56	10.74	11.24	11.00	9.05	8.49	*****	*****	*****	8.52	7.86
MEAN	5.66	8.83	11.11	11.05	10.53	9.54	8.80	7.74	7.14	0.0	0.0	0.0	6.04	6.08
STD. DEV	1.21	2.21	2.49	4.01	1.74	1.84	1.35	1.58	2.36	0.0	0.0	0.0	1.32	1.32
N	12	12	12	12	12	12	12	12	12	0	0	0	12	12

SEARLE STUDY - INDIVIDUAL DATA
PLASMA AMINO ACIDS

TABLE II Plasma amino acid levels (umoles/dl) in normal subjects administered ASPARTAME at 34 mg/kg/body weight.

VARIABLE IS HISTIDIN														
SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
L. SHIEL	9.64	10.61	13.74	9.40	10.32	11.58	9.48	11.18	11.16	*****	*****	*****	9.73	11.59
C. MCGRIS	10.26	11.34	11.51	7.48	10.45	8.92	9.23	10.47	9.50	*****	*****	*****	8.51	11.15
C. SHIEL	9.52	10.76	10.06	8.10	9.28	9.58	8.89	5.38	9.20	*****	*****	*****	12.23	11.28
K. CRABR	9.22	9.61	10.09	9.42	8.51	8.11	9.56	8.64	10.11	*****	*****	*****	9.04	8.72
D. HAZZ	7.45	8.65	6.30	12.10	9.49	7.60	6.50	9.24	11.10	*****	*****	*****	8.34	11.50
A. MITTII	8.51	7.77	7.30	7.96	7.94	6.79	6.20	6.72	6.11	*****	*****	*****	7.64	7.30
M. MILLE	8.22	8.69	8.42	7.52	7.01	6.86	10.44	5.35	8.84	*****	*****	*****	7.45	9.78
P. MEYER	6.72	7.40	7.13	7.30	7.00	7.06	6.71	6.55	6.06	*****	*****	*****	10.30	6.12
I. WONGI	10.82	9.96	9.92	10.01	8.54	9.94	9.15	9.66	10.79	*****	*****	*****	12.47	11.04
V. STIPA	8.50	9.79	6.34	8.75	7.42	10.56	9.55	9.14	10.16	*****	*****	*****	5.25	10.45
K. FLITE	6.18	10.61	15.20	8.91	8.01	7.47	5.44	8.77	8.73	*****	*****	*****	7.07	9.49
	12.54	11.30	10.69	10.65	12.03	10.43	9.63	10.21	7.41	*****	*****	*****	8.86	11.45
MEAN	9.00	9.71	9.73	8.57	8.81	8.77	8.50	5.07	9.10	0.0	0.0	0.0	9.19	10.05
STD. DEV	1.77	1.32	2.83	1.45	1.56	1.68	1.57	1.40	1.77	0.0	0.0	0.0	1.75	1.85
N	12	12	12	12	12	12	12	12	12	0	0	0	12	12

PLASMA AMINO ACIDS

ASPARTAME , COSE = 34 MG/KG

VARIABLE IS ARGININ

SUBJECT / TIME		0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
P. MEYER	9.74	7.69	9.71	8.48	7.41	8.10	7.50	7.92	7.95	*****	*****	*****	*****	9.70	9.13
V. STIPA	6.79	8.13	7.80	6.22	7.22	6.87	6.12	7.76	6.58	*****	*****	*****	*****	8.13	10.33
I. WONGI	8.42	8.95	7.22	8.25	8.00	8.52	8.53	8.33	9.06	*****	*****	*****	*****	10.15	8.53
K. FLITE	9.05	9.39	7.32	7.96	9.40	9.32	7.68	9.93	8.85	*****	*****	*****	*****	7.20	8.86
K. CRABR	6.82	8.11	8.72	10.35	7.26	8.30	7.68	7.47	8.03	*****	*****	*****	*****	6.94	5.37
M. MILLE	6.58	7.21	9.55	7.27	6.70	6.64	6.68	5.88	6.42	*****	*****	*****	*****	6.46	8.69
C. MORIS	5.88	5.52	7.45	6.22	6.07	6.03	6.21	5.57	6.55	*****	*****	*****	*****	5.77	6.66
E. BLAZ	5.54	7.35	6.38	9.00	8.54	6.83	7.55	7.43	8.95	*****	*****	*****	*****	8.85	9.58
M. MITTII	7.64	10.70	9.42	10.80	9.76	9.61	8.36	8.23	7.39	*****	*****	*****	*****	10.00	6.80
A. MITTII	7.59	7.65	7.34	6.87	6.41	6.55	4.70	5.05	6.71	*****	*****	*****	*****	6.45	5.33
L. SHIEL	6.28	8.25	5.57	7.66	7.61	8.17	5.75	5.42	8.01	*****	*****	*****	*****	6.87	7.85
E. SHIEL	11.76	13.74	16.02	11.05	12.43	11.86	11.15	11.11	10.58	*****	*****	*****	*****	12.50	13.83
MEAN	7.71	8.56	8.68	8.34	8.07	8.10	7.36	7.48	7.93	0.0	0.0	0.0	0.0	8.30	8.75
STD. DEV	1.76	2.06	2.52	1.68	1.77	1.68	1.66	1.83	1.27	0.0	0.0	0.0	0.0	2.06	2.14
N	12	12	12	12	12	12	12	12	12	0	0	0	0	12	12

Serial Study - Individual Data

TABLE III Erythrocyte free amino acid levels (umoles/100 gm) in normal

RAC AMINO ACIDS
ASPARTAME , DCSE = 34 MG/KG
VARIABLE IS TAURINE
subjects administered ASPARTAME at 34 mg/kg/body weight.

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
C. MORIS	6.56	2.82	13.25	4.34	6.37	16.20	4.89	4.32	11.16	*****	*****	*****	6.32	3.23
M. MILE	25.83	10.87	6.51	6.57	2.46	3.79	2.86	4.41	5.39	*****	*****	*****	2.53	18.75
V. STINE	9.63	6.35	5.48	27.53	6.78	3.18	2.10	2.32	6.42	*****	*****	*****	4.11	3.52
K. POTTE	4.67	6.27	5.34	12.43	24.10	9.87	24.63	14.98	46.00	*****	*****	*****	36.70	20.39
L. SMIEL	5.83	3.83	5.33	2.27	2.32	2.15	3.67	2.56	10.10	*****	*****	*****	3.33	1.97
T. VONLI	10.81	4.03	4.03	4.01	5.32	3.79	4.01	3.02	4.23	*****	*****	*****	2.40	1.50
P. MEYER	2.33	3.91	6.54	4.07	2.07	3.05	6.00	3.06	9.49	*****	*****	*****	2.35	2.55
D. SMIEL	3.03	2.06	5.67	2.12	3.66	1.88	4.25	2.13	3.58	*****	*****	*****	2.07	3.50
D. ELIZ	2.01	5.62	3.07	2.10	2.40	2.71	2.59	4.10	2.72	*****	*****	*****	3.23	2.68
K. GRUBER	3.72	3.49	5.43	4.82	4.38	3.30	3.66	3.08	4.44	*****	*****	*****	12.83	4.18
A. MITTI	2.43	2.56	5.14	2.83	2.43	2.60	2.97	2.47	2.52	*****	*****	*****	3.27	3.07
M. MITTI	3.13	4.49	3.17	4.53	3.66	3.73	3.57	3.52	4.89	*****	*****	*****	3.50	4.21
MEAN	6.07	4.75	5.76	6.53	5.54	4.71	5.52	4.20	9.46	0.0	0.0	0.0	6.58	6.01
STD. DEV	6.67	2.38	2.61	7.18	6.08	4.14	6.09	3.47	12.47	0.0	0.0	0.0	9.81	6.45
N	12	12	12	12	12	12	12	12	12	0	0	0	12	12

RBC AMINO ACIDS
ASPARTAME , DCSE = 34 MG/KG
VARIABLE IS ASPARTAME

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
A. MITTI	32.93	32.70	30.25	31.88	30.19	32.67	33.85	37.13	32.63	*****	*****	*****	33.18	32.20
K. CHARE	27.03	24.22	23.63	22.74	23.48	23.58	24.06	23.19	25.79	*****	*****	*****	20.07	21.67
M. MITTI	26.41	23.83	24.09	24.72	26.63	23.98	26.29	22.06	23.24	*****	*****	*****	25.32	25.86
D. BUEZ	25.22	24.37	25.24	26.48	25.67	23.66	23.02	24.74	24.92	*****	*****	*****	23.47	23.47
C. SMIEL	30.00	27.61	25.75	26.50	28.11	28.30	27.86	28.98	28.84	*****	*****	*****	25.05	28.66
P. MEYER	23.36	28.17	29.06	26.96	27.10	30.21	30.85	25.74	30.49	*****	*****	*****	28.27	29.59
K. POTTE	14.70	12.49	13.28	12.70	12.11	12.69	12.81	14.80	15.16	*****	*****	*****	13.44	16.03
T. VONLI	21.71	19.52	19.66	21.55	18.35	13.58	18.58	16.55	17.23	*****	*****	*****	20.71	20.86
M. MILE	20.42	24.87	26.19	26.73	26.58	28.04	26.01	25.62	26.62	*****	*****	*****	25.75	26.49
L. SMIEL	25.35	26.03	26.45	27.29	27.40	28.06	28.33	27.70	28.27	*****	*****	*****	23.63	29.34
C. MEYER	18.49	23.10	21.95	22.28	22.07	21.59	23.79	23.47	22.59	*****	*****	*****	22.29	22.97
V. STINE	6.58	6.61	6.60	6.23	8.56	7.12	7.44	7.00	7.00	*****	*****	*****	7.00	5.89
MEAN	23.60	22.84	22.93	23.17	23.02	23.21	23.61	23.25	23.56	0.0	0.0	0.0	22.79	24.02
STD. DEV	7.28	7.08	6.92	7.15	6.72	7.42	7.45	7.50	7.23	0.0	0.0	0.0	7.00	6.22
N	12	12	12	12	12	12	12	12	12	0	0	0	12	12

SEARCHED STUDY - INDIVIDUAL DATA
 Amino Acids

TABLE III Erythrocyte free amino acid levels (umoles/100 gms)

ASPARTAME , DOSE = 34 MG/KG
 in normal subjects administered ASPARTAME at 34 mg/kg/body weight.
 VARIABLE IS THREONIN

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
A. STIVA	9.00	8.86	9.33	9.14	8.56	7.96	8.04	6.92	6.56	*****	*****	*****	4.52	9.48
L. SHIEL	15.61	13.83	15.18	13.82	14.12	14.93	11.80	14.61	13.59	*****	*****	*****	12.37	12.31
C. MURIS	13.13	14.06	14.31	13.57	12.88	14.51	14.93	14.22	12.97	*****	*****	*****	10.05	14.54
M. MILLE	7.21	7.11	7.61	6.56	4.41	5.27	5.17	5.26	4.98	*****	*****	*****	5.63	4.39
K. FULTE	12.53	10.00	11.03	11.48	11.13	11.07	10.37	10.46	12.12	*****	*****	*****	5.63	10.71
T. VANGI	7.32	6.61	9.08	8.87	8.02	7.70	7.61	7.12	6.75	*****	*****	*****	7.30	5.02
F. MEYER	6.43	5.94	7.24	6.27	5.57	6.35	5.35	5.20	7.26	*****	*****	*****	5.31	7.83
D. SHIEL	9.60	10.54	10.75	9.86	10.24	9.32	9.39	8.69	9.31	*****	*****	*****	7.87	12.55
D. BOZEL	7.91	8.32	8.36	8.53	8.46	7.57	7.52	7.30	7.15	*****	*****	*****	6.95	8.59
A. MITHI	9.54	9.81	11.07	9.94	10.32	9.86	10.43	10.26	10.26	*****	*****	*****	9.03	10.88
K. CPARE	11.34	10.58	11.12	11.71	12.11	10.82	13.68	9.33	10.07	*****	*****	*****	10.13	15.15
MEAN	10.24	9.54	10.50	10.00	9.71	9.57	9.44	8.57	9.25	0.0	0.0	0.0	8.40	10.36
STD. DEV	2.64	2.34	2.42	2.38	2.84	2.95	3.01	3.05	2.77	0.0	0.0	0.0	1.98	3.01
N	12	12	12	12	12	12	12	12	12	0	0	0	12	12

RBC AMINO ACIDS

ASPARTAME , DOSE = 34 MG/KG

VARIABLE IS SERINE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
A. MITHI	12.04	11.20	12.52	11.22	11.57	11.55	12.26	12.49	13.23	*****	*****	*****	11.35	11.64
K. CRAB	10.44	9.00	10.16	9.62	9.89	9.77	9.31	8.76	10.19	*****	*****	*****	3.87	10.09
M. MITHI	20.64	15.97	15.36	16.24	17.21	15.12	21.32	12.98	14.76	*****	*****	*****	15.33	21.08
C. BOZEL	10.35	11.29	11.17	11.25	11.40	11.41	11.32	11.92	11.97	*****	*****	*****	11.95	11.50
P. MEYER	9.15	9.16	9.65	9.20	8.99	9.56	5.84	8.61	10.20	*****	*****	*****	6.69	9.87
C. SHIEL	13.25	14.53	13.73	13.14	12.66	11.97	11.93	12.30	13.09	*****	*****	*****	11.18	11.94
T. VLACI	11.61	11.90	11.36	13.11	11.75	11.08	11.00	11.27	10.79	*****	*****	*****	10.80	11.72
C. MURIS	11.28	12.28	12.11	11.74	11.49	12.53	13.01	12.03	12.29	*****	*****	*****	0.54	12.06
K. FULTE	12.62	11.33	11.27	11.42	11.42	11.63	10.97	10.77	14.93	*****	*****	*****	12.14	11.34
K. MILLE	14.40	10.59	10.86	10.06	8.91	9.93	5.81	10.01	9.93	*****	*****	*****	10.34	9.32
V. STIVA	9.94	10.00	10.10	9.76	9.80	8.62	5.42	7.70	8.66	*****	*****	*****	8.42	10.92
L. SHIEL	12.17	9.46	9.77	8.67	8.80	5.35	7.62	9.56	9.13	*****	*****	*****	9.27	9.32
MEAN	12.32	11.45	11.52	11.29	11.18	11.05	11.40	10.83	11.60	0.0	0.0	0.0	10.64	11.77
STD. DEV	3.00	2.03	1.69	2.12	2.31	1.72	3.50	1.66	2.11	0.0	0.0	0.0	2.02	3.08
N	12	12	12	12	12	12	12	12	12	0	0	0	12	12

TABLE III Erythrocyte free amino acid levels (μ moles/100 gms) in normal

subjects administered ASPARTAME at 34 mg/kg/body weight.

[illegible][illegible]

ASPARTATE, USE = 34 MG/KG

[illegible][illegible]

SEARLE STUDY - INDIVIDUAL DATA
RBC AMINO ACIDS
ASPARTAME , DCSE = 34 MG/KG

TABLE III Erythrocyte free amino acid levels (umoles/100 gms) in normal subjects administered ASPARTAME at 34 mg/kg/body weight.

VARIABLE IS ISOLEUCIN

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
L. SMITH	3.33	2.88	2.65	2.07	1.90	1.64	1.75	2.31	2.56	*****	*****	*****	2.72	2.83
M. WILLE	4.19	3.60	3.25	2.60	2.41	2.14	2.26	2.77	2.61	*****	*****	*****	3.00	4.66
V. STINA	3.17	2.86	2.82	2.46	2.52	2.18	2.33	2.26	2.28	*****	*****	*****	3.00	2.34
C. MORRIS	1.51	1.64	1.36	1.11	1.32	0.88	1.03	1.39	1.73	*****	*****	*****	2.56	2.35
K. FULTON	3.37	3.02	2.74	2.12	1.94	0.91	1.84	2.21	2.80	*****	*****	*****	3.73	3.08
A. MITT	2.37	5.13	5.14	4.72	3.68	3.94	3.99	4.02	4.16	*****	*****	*****	5.17	5.43
P. MEYER	6.11	5.38	5.30	7.22	7.17	4.22	4.52	4.15	4.90	*****	*****	*****	5.20	6.52
D. BODZ	4.09	3.64	3.08	3.45	2.97	3.12	2.66	2.95	3.57	*****	*****	*****	4.01	5.27
C. SHIEL	3.25	3.17	3.07	3.12	1.96	2.27	1.89	2.65	1.82	*****	*****	*****	3.22	5.24
M. MITT	3.01	2.37	2.30	2.39	2.84	1.54	3.00	1.76	2.32	*****	*****	*****	2.59	3.40
K. CHARR	3.54	3.56	3.07	3.19	2.87	2.41	2.23	2.21	3.02	*****	*****	*****	3.27	3.76
T. VANDI	3.58	4.19	3.40	2.83	2.53	2.04	2.09	2.85	2.82	*****	*****	*****	2.40	3.63
MEAN	3.76	3.47	3.31	3.09	2.86	2.28	2.43	2.63	2.88	C.0	C.0	C.0	3.44	4.09
S.D. CEV	1.17	1.05	1.06	1.59	1.51	1.06	0.96	0.82	0.93	0.0	0.0	0.0	0.95	1.30
N	12	12	12	12	12	12	12	12	12	C.	C.	C.	12	12

RBC AMINO ACIDS

ASPARTAME , DCSE = 34 MG/KG

VARIABLE IS LEUCINE

SUBJECT / TIME	0 MIN	15 MIN	20 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
M. MITT	7.23	6.23	5.69	5.55	6.67	4.64	8.40	4.85	6.00	*****	*****	*****	7.03	7.19
L. WITTI	11.07	11.78	12.23	10.97	9.58	9.40	9.61	10.11	10.27	*****	*****	*****	12.73	12.54
T. VANDI	9.24	9.46	8.65	8.19	6.53	5.90	5.90	6.90	7.56	*****	*****	*****	6.88	9.13
K. CHARR	9.29	8.73	8.54	8.14	7.71	6.30	6.55	6.52	7.95	*****	*****	*****	8.27	9.19
C. MORRIS	5.98	6.43	6.42	5.12	5.71	4.52	5.30	6.01	6.62	*****	*****	*****	7.12	7.06
P. MEYER	11.13	10.26	10.24	9.42	8.71	8.32	8.82	8.31	10.54	*****	*****	*****	10.54	11.32
D. BODZ	8.93	8.77	8.70	8.28	7.25	7.09	6.82	7.58	8.50	*****	*****	*****	9.21	11.14
D. SMITH	8.17	8.09	8.01	7.13	6.10	5.29	4.88	6.25	6.06	*****	*****	*****	7.98	12.15
K. FULTON	8.19	6.89	6.49	5.45	4.86	4.85	4.43	5.19	6.29	*****	*****	*****	7.19	5.74
M. WITTI	3.43	7.24	6.47	5.12	4.64	4.12	4.00	5.43	5.78	*****	*****	*****	7.39	8.69
L. SMITH	6.11	6.30	6.01	4.94	4.57	2.86	4.12	5.41	6.33	*****	*****	*****	6.20	6.18
V. STINA	8.74	8.33	8.16	7.90	6.52	6.06	6.16	5.67	6.18	*****	*****	*****	7.41	8.56
MEAN	8.62	8.21	8.00	7.18	6.64	5.80	6.25	6.52	7.54	0.0	0.0	0.0	8.22	9.21
S.D. CEV	1.75	1.72	1.53	1.96	1.64	1.83	1.88	1.52	1.65	C.	C.	C.	1.90	2.23
N	12	12	12	12	12	12	12	12	12	C.	C.	C.	12	12

SCARLE STUDY - INDIVIDUAL DATA
 Amino Acids

TABLE III Erythrocyte free amino acid levels (μ moles/100 gms) in normal subjects administered ASPARTAME at 34 mg/kg/body weight.

ASPARTAME , DOSE = 34 MG/KG

SUBJECT / TIME		0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
K. FICITE		7.45	5.92	8.60	7.28	7.69	9.23	6.15	7.69	6.97	*****	*****	*****	8.99	10.90
L. SHIEL		12.42	15.09	16.05	15.90	16.19	12.77	14.91	15.56	15.69	*****	*****	*****	13.72	10.69
M. STIEL		9.26	8.60	9.27	9.48	10.14	9.92	8.96	8.22	7.12	*****	*****	*****	7.11	10.75
M. MILLE		12.77	10.70	14.01	14.96	14.60	15.31	12.99	5.84	11.94	*****	*****	*****	11.24	12.20
D. FICITE		14.51	15.23	15.17	16.30	16.10	16.08	13.28	11.44	10.24	*****	*****	*****	11.51	12.23
C. WATIS		9.03	7.96	7.59	8.35	8.13	8.31	8.72	8.07	7.34	*****	*****	*****	6.17	6.39
K. GILLES		13.22	13.62	14.29	14.41	14.97	14.30	12.94	11.71	12.52	*****	*****	*****	5.11	13.40
T. VASCI		7.81	8.23	9.02	12.77	10.67	5.34	8.75	10.92	10.24	*****	*****	*****	8.05	12.15
D. SHIEL		10.80	15.93	12.82	14.27	11.28	12.63	10.22	12.00	10.27	*****	*****	*****	10.72	9.92
P. MEYER		14.83	15.54	13.83	13.63	13.41	16.07	14.50	11.45	13.09	*****	*****	*****	11.16	15.44
A. WITTI		18.49	17.19	18.66	18.72	18.37	18.97	18.25	17.77	16.31	*****	*****	*****	14.39	15.48
M. WITTI		15.33	13.94	13.61	14.58	15.01	12.72	16.27	12.00	14.52	*****	*****	*****	11.73	14.33
MEAN		11.99	12.41	12.54	13.39	13.05	13.03	12.49	11.49	11.39	0.0	0.0	0.0	10.43	12.11
STD. DEV		3.64	3.68	3.39	3.40	3.41	3.43	3.60	2.93	3.21	0.0	0.0	0.0	2.51	2.71
N		12	12	12	12	12	12	12	12	12	0	0	0	12	12

ASPARTAME , DOSE = 34 MG/KG

VARIABLE IS LYSINE

SUBJECT / TIME		0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
K. WITTI		14.27	9.99	5.63	10.28	11.16	9.80	15.96	9.51	10.55	*****	*****	*****	10.42	12.10
T. VASCI		8.31	8.53	8.15	11.80	8.91	9.97	8.03	11.14	10.50	*****	*****	*****	11.74	12.97
B. MEYER		17.30	17.72	17.45	17.26	16.17	17.54	17.99	15.81	18.54	*****	*****	*****	15.41	15.07
C. SHIEL		3.00	11.92	8.82	10.12	8.93	5.79	8.96	11.27	9.60	*****	*****	*****	10.30	9.39
A. WITTI		17.34	18.02	18.50	17.11	16.42	16.99	17.91	18.25	17.46	*****	*****	*****	13.57	13.67
K. COFFE		14.25	12.59	13.38	12.68	12.68	13.07	13.01	12.03	13.30	*****	*****	*****	10.45	19.02
C. WATIS		9.97	10.81	10.45	10.17	10.07	10.32	11.54	12.03	11.02	*****	*****	*****	13.57	13.67
D. EUAI		14.12	13.57	13.67	13.99	13.54	14.28	10.87	11.62	11.43	*****	*****	*****	11.89	12.03
M. MILLE		13.94	12.04	11.33	11.76	11.36	11.57	11.52	11.94	11.33	*****	*****	*****	13.28	12.53
V. STIEL		12.12	11.80	11.47	12.07	11.96	10.94	11.26	11.66	9.41	*****	*****	*****	10.32	9.72
K. FICITE		11.54	9.50	10.75	9.90	9.23	5.79	11.46	10.43	10.65	*****	*****	*****	11.21	10.61
L. SHIEL		15.01	12.14	11.88	11.39	11.83	12.03	11.57	13.40	12.91	*****	*****	*****	11.30	11.92
MEAN		13.39	12.46	12.14	12.33	11.83	12.23	12.33	12.37	12.21	0.0	0.0	0.0	12.36	12.81
STD. DEV		3.02	2.94	3.20	2.54	2.54	2.74	3.31	2.43	3.09	0.0	0.0	0.0	2.33	3.18
N		12	12	12	12	12	12	12	12	12	0	0	0	12	12

SEATTLE STUDY - INDIVIDUAL DATA

ASPARTAME , DOSE = 34 MG/KG

TABLE III Erythrocyte free amino acid levels (μ moles /100 gms) in normal subjects administered ASPARTAME at 34 mg/kg/body weight.

VARIABLE IS HISTIDIN

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
L. SHIEL	12.81	10.12	10.85	10.83	9.32	11.32	5.82	11.13	10.03	*****	*****	*****	9.70	10.12
V. STIVA	8.47	6.37	6.41	6.73	7.04	6.60	6.26	6.04	5.21	*****	*****	*****	6.09	5.93
K. PUTTE	9.67	8.33	8.71	8.82	8.37	7.90	7.95	8.01	7.99	*****	*****	*****	8.69	7.63
M. MILLE	9.63	7.95	7.77	3.39	7.76	8.39	7.59	7.51	7.67	*****	*****	*****	5.04	8.73
K. CAPTE	7.05	6.67	6.55	6.82	6.86	6.73	6.65	6.09	6.80	*****	*****	*****	6.54	6.56
C. MOPIS	7.19	7.91	7.93	7.61	7.33	7.97	3.23	6.51	7.78	*****	*****	*****	7.11	8.33
O. BODZ	7.97	7.76	8.05	8.08	7.68	8.01	5.78	6.16	5.86	*****	*****	*****	6.16	5.03
D. SHIEL	8.78	9.74	8.84	8.45	8.38	7.94	8.10	8.52	8.09	*****	*****	*****	7.23	6.78
A. MITTI	10.77	10.32	11.12	10.34	10.05	10.17	10.58	11.48	9.92	*****	*****	*****	5.91	10.33
S. MITTI	8.48	5.07	5.77	6.14	6.41	5.74	8.09	5.33	5.98	*****	*****	*****	5.92	7.06
P. MEYER	8.01	9.05	8.68	8.82	8.45	9.26	9.41	7.57	9.44	*****	*****	*****	8.51	9.10
T. WNCI	6.00	5.41	5.26	7.60	6.10	5.13	5.00	6.56	7.04	*****	*****	*****	6.06	7.12
MEAN	8.00	7.96	8.03	8.22	7.86	7.91	7.79	7.81	7.65	0.0	0.0	0.0	7.61	7.41
STD. DEV	1.91	1.65	1.80	1.39	1.23	1.71	1.67	1.93	1.53	0.0	0.0	0.0	1.53	1.53
N	12	12	12	12	12	12	12	12	12	0	0	0	12	12

RBC AMINO ACIDS

ASPARTAME , DOSE = 34 MG/KG

VARIABLE IS ARGININE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
T. WNCI	1.08	1.08	1.15	0.95	0.58	1.00	0.99	1.16	1.30	*****	*****	*****	3.01	2.74
P. MEYER	0.89	0.58	0.92	0.75	0.65	0.96	1.15	1.35	0.62	*****	*****	*****	2.69	1.00
C. SHIEL	1.64	2.26	1.59	2.93	2.05	3.68	2.42	3.00	2.32	*****	*****	*****	3.82	3.84
K. CRABR	1.16	1.81	1.44	1.32	1.64	1.46	1.17	1.00	0.90	*****	*****	*****	0.98	1.61
D. BODZ	2.29	1.69	1.61	0.93	1.37	1.02	0.69	1.13	1.14	*****	*****	*****	2.37	1.30
A. MITTI	0.63	0.23	1.00	1.24	0.82	0.58	0.64	1.02	1.12	*****	*****	*****	2.43	1.27
C. MOPIS	0.90	1.18	1.33	0.37	0.43	0.96	0.63	1.00	0.79	*****	*****	*****	1.95	2.73
M. MITTI	1.03	1.03	0.87	1.06	1.03	1.08	1.52	0.88	0.47	*****	*****	*****	1.94	2.40
V. STIVA	2.37	2.03	2.27	2.51	1.30	1.19	1.26	1.19	1.98	*****	*****	*****	3.00	1.73
K. PUTTE	4.58	2.81	3.06	4.25	3.68	5.76	1.64	2.00	3.74	*****	*****	*****	3.80	1.41
M. MILLE	4.07	1.01	1.03	0.85	1.36	1.46	1.23	2.52	2.00	*****	*****	*****	4.00	1.62
L. SHIEL	2.65	2.41	3.67	3.30	3.59	2.54	2.66	3.18	1.59	*****	*****	*****	2.24	2.04
MEAN	1.34	1.54	1.70	1.71	1.58	1.81	1.35	1.62	1.50	0.0	0.0	0.0	2.69	1.98
STD. DEV	1.10	0.75	0.90	1.23	1.06	1.51	0.63	0.83	0.51	0.0	0.0	0.0	0.90	0.82
N	12	12	12	12	12	12	12	12	12	0	0	0	12	12

SEARCH STUDY - INDIVIDUAL DATA
PLASMA AMINO ACIDS

TABLE IV Plasma amino acid levels (umoles/dl) in normal subjects administered ASPARTATE at 13 mg/kg body weight.

VARIABLE IS TAURINE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
K. PUTTE	4.27	3.35	2.95	5.23	4.79	4.71	4.92	3.58	2.42	***	***	***	5.04	3.67
A. MILLE	3.65	4.72	4.63	2.95	2.10	5.46	4.77	3.85	3.87	***	***	***	6.07	5.12
V. STIMA	7.23	6.09	7.06	5.85	5.78	4.57	5.90	4.74	4.55	***	***	***	6.18	5.72
C. POMIS	4.03	5.04	5.26	4.75	4.01	4.50	4.63	3.79	4.50	***	***	***	2.12	1.71
L. SMILL	3.42	4.24	4.05	4.02	4.64	5.01	2.84	3.73	4.27	***	***	***	6.84	4.21
J. MEYER	6.94	6.07	6.39	3.81	5.27	5.93	4.42	7.32	3.62	***	***	***	6.29	5.15
I. VONCI	6.50	4.68	11.40	6.02	5.31	5.71	5.54	5.71	5.05	***	***	***	3.36	4.32
K. MITTI	3.52	3.69	3.67	3.60	5.30	3.36	4.10	3.60	3.37	***	***	***	4.72	4.12
B. SMILL	5.21	4.40	6.12	3.91	6.10	6.19	6.47	5.03	5.33	***	***	***	5.42	7.60
A. MITTI	4.60	3.22	5.11	6.30	4.37	4.34	4.17	5.25	4.70	***	***	***	2.05	3.48
K. GRAB	4.94	3.54	5.50	4.43	7.03	2.24	4.50	3.09	5.41	***	***	***	5.22	5.80
C. BOZ	5.57	7.50	5.24	6.62	9.01	5.65	5.06	5.17	4.68	***	***	***	5.71	4.93
MEAN	5.03	4.75	6.01	4.97	5.42	4.84	4.76	4.68	4.33	0.0	0.0	0.0	5.05	4.66
STD. DEV	1.36	1.28	2.36	1.55	1.67	1.58	0.93	1.10	0.88	0.0	0.0	0.0	1.44	1.46
N	12	12	12	12	12	12	12	12	12	0	0	0	12	12

PLASMA AMINO ACIDS

ASPARTATE , DOSE = 13 MG/KG

VARIABLE IS ASPART

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
C. BOZ	0.63	0.66	0.65	0.76	0.75	0.73	0.66	0.65	0.44	***	***	***	0.51	0.44
K. GRAB	0.12	0.15	0.21	0.22	0.29	0.49	0.35	0.23	0.10	***	***	***	0.17	0.22
C. POMIS	0.10	0.26	0.11	0.16	0.31	0.21	0.17	0.21	0.47	***	***	***	0.31	0.45
A. MITTI	0.38	0.13	0.10	0.29	0.65	0.13	0.13	0.32	0.14	***	***	***	0.26	0.29
B. SMILL	0.38	0.34	0.36	0.41	0.60	0.37	0.36	0.28	0.22	***	***	***	0.42	0.21
K. MITTI	0.09	0.09	0.10	0.11	0.23	0.12	0.11	0.13	0.10	***	***	***	0.10	0.09
I. VONCI	0.11	0.19	0.40	0.40	0.09	0.39	0.12	0.44	1.23	***	***	***	0.24	0.09
F. MEYER	0.25	0.23	0.50	0.58	0.48	0.50	0.34	0.19	0.24	***	***	***	0.44	0.15
L. SMILL	0.51	0.51	0.50	0.44	0.23	0.22	0.16	0.19	0.31	***	***	***	0.59	0.36
V. STIMA	0.23	0.09	0.13	0.36	0.24	0.22	0.29	0.21	0.26	***	***	***	0.31	0.50
M. MILLE	0.34	0.32	0.22	0.28	0.23	0.38	0.19	0.26	0.06	***	***	***	0.15	0.21
K. PUTTE	0.43	0.13	0.32	0.20	0.63	0.10	0.17	0.12	0.62	***	***	***	0.31	0.37
MEAN	0.50	0.26	0.30	0.36	0.39	0.29	0.25	0.27	0.26	0.0	0.0	0.0	0.32	0.28
STD. DEV	0.18	0.18	0.19	0.18	0.22	0.20	0.16	0.15	0.34	0.0	0.0	0.0	0.15	0.14
N	12	12	12	12	12	12	12	12	12	0	0	0	12	12

SEARLE STUDY - INDIVIDUAL DATA
PLASMA AMINO ACIDS

ASPARTATE , DCSE = 13 MG/KG

TABLE IV Plasma amino acid levels (umoles/dl) in normal subjects administered ASPARTATE at 13 mg/kg/body weight.

VARIABLE IS THREON

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
K. PUTTE	14.92	21.66	17.35	22.75	24.35	18.14	20.96	17.43	17.23	*****	*****	*****	14.10	17.00
L. SHIEL	14.58	17.64	16.38	15.76	16.00	13.69	15.03	14.23	19.18	*****	*****	*****	13.21	14.89
V. STIMA	17.85	19.05	24.42	19.95	18.01	16.75	16.34	15.73	15.63	*****	*****	*****	13.50	19.20
M. MILLE	15.53	14.92	13.35	13.24	8.80	13.27	14.98	13.95	11.42	*****	*****	*****	14.00	15.61
P. MEYER	13.91	14.13	15.81	13.17	13.04	10.51	12.18	12.93	12.17	*****	*****	*****	11.94	12.57
T. VANDI	18.25	14.09	14.20	16.87	15.60	16.03	15.13	15.09	14.95	*****	*****	*****	11.91	14.49
M. ALITI	10.67	12.20	10.70	12.65	15.00	9.40	10.55	8.50	9.31	*****	*****	*****	8.20	10.03
C. SHIEL	14.33	17.93	17.14	18.29	17.45	16.18	16.43	14.48	14.39	*****	*****	*****	17.07	14.36
A. WITTI	12.03	12.98	13.21	14.71	14.05	11.44	10.23	12.59	12.35	*****	*****	*****	11.43	16.07
C. MORIS	17.63	21.55	23.44	22.96	17.92	21.84	18.59	18.69	18.24	*****	*****	*****	17.52	23.53
K. CRAIG	15.75	12.74	18.21	13.84	17.46	10.42	13.10	11.03	13.47	*****	*****	*****	12.73	13.78
C. BOAZ	11.27	12.47	12.36	12.54	12.21	10.80	10.13	10.23	9.28	*****	*****	*****	10.06	12.51
MEAN	15.31	15.87	16.39	16.40	15.82	14.06	14.49	13.77	13.97	0.0	0.0	0.0	12.97	15.64
STD. DEV	3.25	3.59	4.17	3.80	3.83	3.75	3.38	2.57	3.25	0.0	0.0	0.0	2.63	3.63
N	12	12	12	12	12	12	12	12	12	0	0	0	12	12

PLASMA AMINO ACIDS

ASPARTATE , DCSE = 13 MG/KG

VARIABLE IS SERINE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
D. ELLI	12.77	11.30	15.76	15.14	14.03	9.23	6.67	10.90	9.27	*****	*****	*****	9.43	12.97
K. CRIG	10.21	8.19	10.52	8.97	9.53	15.43	8.56	7.55	9.70	*****	*****	*****	11.11	14.70
A. WITTI	12.30	12.46	10.52	13.74	13.04	8.70	11.26	11.40	10.20	*****	*****	*****	13.33	14.01
C. MORIS	9.92	13.52	11.83	13.66	10.49	11.00	11.16	10.47	12.55	*****	*****	*****	10.74	12.76
C. SHIEL	10.60	12.35	11.60	11.37	16.09	10.75	11.19	15.86	12.24	*****	*****	*****	12.33	15.50
M. ALITI	9.60	11.05	10.23	11.76	14.50	9.20	10.10	8.23	9.33	*****	*****	*****	9.31	10.60
T. VANDI	16.00	11.31	14.10	11.84	15.10	13.03	14.10	14.52	14.59	*****	*****	*****	14.19	12.10
P. MEYER	9.64	11.10	11.05	13.71	8.58	10.73	9.99	9.40	6.83	*****	*****	*****	12.01	11.95
M. MILLE	11.75	21.24	9.72	12.25	9.07	12.81	12.69	18.16	8.76	*****	*****	*****	16.73	14.54
V. STIMA	10.97	14.42	10.60	11.83	13.15	6.53	9.71	7.67	8.08	*****	*****	*****	8.68	13.76
L. SHIEL	11.70	13.61	10.68	12.78	12.92	9.70	10.56	12.15	11.73	*****	*****	*****	9.99	11.79
K. PUTTE	15.16	15.35	12.18	10.56	18.02	12.52	15.96	9.46	15.11	*****	*****	*****	9.40	15.40
MEAN	11.75	13.01	11.60	11.47	12.92	11.35	10.99	11.31	10.87	0.0	0.0	0.0	11.46	13.34
STD. DEV	2.06	3.21	1.74	3.45	2.89	2.20	2.44	3.35	2.34	0.0	0.0	0.0	2.38	1.55
N	12	12	12	12	12	12	12	12	12	0	0	0	12	12

SEARLE STUDY - INDIVIDUAL DATA
PLASMA AMINO ACIDS

ASPARTATE , DOSE = 13 MG/KG

TABLE IV Plasma amino acid levels (umoles/dl) in normal subjects administered ASPARTATE at 13 mg/kg/body weight.

VARIABLE IS GLUTAMATE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
V. STIPA	2.35	1.80	1.81	2.35	2.34	1.30	2.11	1.76	2.53	***	***	***	1.36	1.87
L. SHIEL	3.76	2.87	3.74	5.63	5.08	7.90	2.82	4.84	3.02	***	***	***	13.11	3.21
K. FOTIE	3.08	2.27	3.71	2.74	3.01	4.35	2.44	2.85	4.89	***	***	***	2.37	2.91
M. WILLE	4.17	3.18	6.65	5.64	5.20	9.72	3.91	4.23	4.83	***	***	***	3.41	6.03
T. VONCI	6.29	4.75	12.10	6.53	5.10	4.75	4.74	3.56	3.94	***	***	***	2.70	2.23
C. VORIS	1.67	2.00	3.15	2.64	2.14	2.21	1.62	1.85	2.00	***	***	***	2.10	2.93
M. WILII	1.62	1.38	2.72	2.72	3.49	2.42	2.42	1.00	1.11	***	***	***	1.27	1.75
L. SHIEL	3.15	5.62	5.47	6.53	5.29	5.95	5.85	3.89	4.62	***	***	***	5.04	5.06
F. PEYER	5.29	5.64	7.94	8.61	8.62	9.00	8.21	7.08	6.23	***	***	***	9.19	6.09
A. WILII	7.55	6.12	5.03	3.97	4.79	4.25	5.54	4.23	2.41	***	***	***	4.05	3.71
K. CARUS	3.27	2.58	5.67	2.54	4.45	2.73	3.09	2.82	4.13	***	***	***	4.37	4.33
D. GONZ	10.94	12.29	13.44	14.27	14.50	12.42	11.52	12.14	10.35	***	***	***	7.69	10.49
MEAN	4.50	4.42	5.55	5.35	5.53	5.50	4.51	4.21	4.26	0.0	0.0	0.0	4.59	4.30
STD. DEV	2.71	2.98	3.63	3.47	3.31	3.37	2.92	2.98	2.38	0.0	0.0	0.0	3.24	2.44
N	12	12	12	12	12	12	12	12	12	0	0	0	12	12

PLASMA AMINO ACIDS

ASPARTATE , DOSE = 13 MG/KG

VARIABLE IS PROLINE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
D. BODZ	22.52	25.30	25.47	26.52	31.36	23.35	23.71	22.49	21.25	***	***	***	20.01	26.82
K. CRABZ	23.78	25.87	42.35	32.43	33.49	19.67	32.40	25.85	27.59	***	***	***	24.55	26.74
A. WILII	20.21	26.10	34.17	34.59	33.82	29.61	33.23	31.60	24.35	***	***	***	42.74	26.29
P. PEYER	19.50	20.04	20.01	18.11	23.48	24.17	15.61	17.00	15.13	***	***	***	17.45	26.11
D. SHIEL	24.80	22.63	27.73	29.45	36.16	35.29	34.69	26.83	25.15	***	***	***	25.59	36.11
M. WILII	11.80	14.10	15.67	15.56	18.00	14.00	13.90	9.50	9.42	***	***	***	8.51	9.18
T. VONCI	24.28	25.69	38.68	37.10	28.90	29.73	29.75	24.63	24.84	***	***	***	14.71	17.34
C. WILIS	25.56	20.45	22.20	35.31	18.70	24.99	23.80	28.15	19.70	***	***	***	20.13	22.20
M. WILLE	10.09	23.44	22.10	17.87	17.47	18.22	14.97	15.55	15.93	***	***	***	10.72	11.01
K. FOTIE	11.86	22.42	20.73	20.99	12.92	21.10	21.23	15.07	19.32	***	***	***	17.20	17.26
L. SHIEL	17.51	14.86	18.21	24.11	22.07	16.95	17.63	12.49	9.91	***	***	***	11.29	12.46
L. SHIEL	12.64	17.18	20.34	21.09	21.43	18.55	15.23	13.38	17.79	***	***	***	11.22	13.94
MEAN	19.61	21.51	25.64	26.16	24.62	23.35	22.68	20.21	19.20	0.0	0.0	0.0	17.05	20.45
STD. DEV	6.69	4.25	8.47	7.54	7.66	6.48	7.58	7.21	5.87	0.0	0.0	0.0	5.98	3.18
N	12	12	12	12	12	12	12	12	12	0	0	0	12	12

SEPARATE STUDY - INDIVIDUAL DATA PLASMA AMINO ACIDS

ASPARTATE , DOSE = 13 MG/KG

TABLE IV Plasma amino acid levels (μ moles/dl) in normal subjects administered ASPARTATE at 13 mg/kg/body weight.

VARIABLE IS CITRULLIN

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
L. SMITH	3.31	3.88	2.95	2.50	2.03	2.00	2.53	3.14	4.07	*****	*****	*****	2.51	3.10
M. MITTLE	3.60	2.71	2.35	2.21	1.85	1.87	2.38	3.14	3.55	*****	*****	*****	4.27	4.14
K. LITTLE	3.20	1.45	1.81	1.93	1.39	1.58	1.55	2.59	2.93	*****	*****	*****	2.50	3.16
C. MORRIS	1.96	3.04	1.76	1.38	0.83	0.63	0.85	1.90	1.85	*****	*****	*****	1.77	2.45
T. LUNDA	4.11	3.00	1.01	2.32	2.11	2.92	2.10	3.00	1.23	*****	*****	*****	3.00	3.40
V. DILLIA	3.81	2.97	2.51	3.27	3.09	1.95	2.07	2.20	2.47	*****	*****	*****	2.37	3.07
M. SMITH	3.06	3.36	1.24	1.54	1.74	1.50	1.14	1.64	1.50	*****	*****	*****	1.35	1.55
D. SMITH	4.74	4.32	4.11	3.60	2.97	3.29	3.62	3.60	3.34	*****	*****	*****	3.93	3.93
P. MEYER	2.72	2.30	2.60	1.38	1.38	1.12	2.25	2.64	2.65	*****	*****	*****	2.41	2.30
A. MITHI	2.72	2.57	2.00	2.39	1.41	1.72	2.11	0.40	2.73	*****	*****	*****	2.05	2.13
K. CRAND	2.42	2.03	3.73	1.72	2.05	1.41	1.57	2.20	3.54	*****	*****	*****	6.04	2.95
C. ROSE	3.32	3.43	2.75	2.65	2.66	3.19	3.57	3.11	2.67	*****	*****	*****	2.69	2.77
MEAN	3.25	2.90	2.41	2.28	2.17	1.94	2.14	2.46	2.76	0.0	0.0	0.0	2.37	2.38
STD. DEV	0.76	0.78	0.92	0.67	0.85	0.75	0.84	0.90	0.90	0.0	0.0	0.0	1.23	3.77
N	12	12	12	12	12	12	12	12	12	0	0	0	12	12

PLASMA AMINO ACIDS

ASPARTATE , DOSE = 13 MG/KG

VARIABLE IS GLYCINE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
C. ROSE	24.85	25.14	25.97	25.89	25.75	24.85	24.17	25.26	22.39	*****	*****	*****	24.03	23.97
K. CRAND	30.81	24.45	35.42	27.37	33.19	26.11	28.03	24.18	27.63	*****	*****	*****	24.03	25.01
A. MITHI	23.83	31.27	20.11	27.29	27.40	23.50	22.94	28.15	27.14	*****	*****	*****	27.31	31.71
P. MEYER	15.81	19.94	23.01	22.01	19.33	18.37	21.83	20.50	20.04	*****	*****	*****	20.10	21.91
D. SMITH	21.95	29.43	27.07	29.36	24.77	25.62	25.91	21.36	23.05	*****	*****	*****	16.30	29.46
T. LUNDA	25.50	28.20	24.30	28.60	32.90	24.50	27.60	22.40	23.80	*****	*****	*****	23.70	27.50
V. DILLIA	25.23	19.00	20.90	21.56	34.10	21.44	20.30	24.43	21.35	*****	*****	*****	13.53	17.65
M. SMITH	24.04	23.02	23.92	22.35	24.20	23.15	23.73	23.33	22.49	*****	*****	*****	21.33	23.20
C. CRAND	10.93	16.04	13.70	14.03	10.55	12.64	11.93	11.24	11.24	*****	*****	*****	10.79	12.27
K. LITTLE	15.72	15.11	14.46	15.77	19.08	12.63	16.90	13.55	15.21	*****	*****	*****	12.77	15.20
M. MITTLE	24.70	20.63	17.70	19.30	16.82	21.54	22.35	20.52	23.93	*****	*****	*****	19.77	24.40
L. SMITH	14.27	17.26	14.25	13.36	14.31	12.38	15.84	12.35	15.91	*****	*****	*****	14.16	14.61
MEAN	22.30	22.56	21.82	22.25	23.42	20.39	21.81	20.85	21.13	0.0	0.0	0.0	19.74	22.75
STD. DEV	5.96	5.32	6.39	5.67	7.75	5.37	4.84	5.48	4.88	0.0	0.0	0.0	5.55	6.05
N	12	12	12	12	12	12	12	12	12	0	0	0	12	12

SEARCH STUDY - INDIVIDUAL DATA
PLASMA AMINO ACIDS

TABLE IV Plasma amino acid levels (μ moles/dl) in normal subjects administered ASPARTAME at 13 mg/kg/body weight.

ASPARTAME , DOSE = 13 MG/KG

VARIABLE IS VALINE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
L. SHIEL	18.70	17.14	15.52	14.76	15.33	12.53	13.22	14.27	15.03	***	***	***	15.94	12.61
M. WILLE	26.18	25.83	24.47	19.24	16.06	13.25	22.97	23.43	21.11	***	***	***	25.91	26.01
K. PUTTE	17.01	16.25	11.56	14.63	15.53	13.23	15.11	15.32	13.19	***	***	***	13.93	14.88
V. STIMA	27.31	26.36	26.02	26.14	24.55	24.39	23.39	23.76	22.83	***	***	***	23.00	22.72
T. VAGAI	25.74	20.09	15.23	20.99	17.30	13.47	23.60	22.15	19.13	***	***	***	20.00	24.51
N. MITTI	16.80	13.80	14.10	15.61	17.02	12.03	15.60	14.79	14.90	***	***	***	15.00	11.10
A. MITTI	22.12	22.58	26.25	24.47	25.18	23.79	15.70	30.11	27.20	***	***	***	22.11	27.02
D. SHIEL	23.62	26.52	23.67	25.16	29.92	24.01	25.00	23.30	24.25	***	***	***	15.72	27.49
P. MEYER	25.39	27.41	30.14	23.46	30.41	22.39	20.26	20.51	24.12	***	***	***	29.91	27.52
C. NOTIS	13.00	15.81	15.59	14.68	12.43	14.26	13.93	14.52	15.84	***	***	***	16.78	21.24
K. CRABO	30.49	22.80	22.61	24.22	22.91	28.99	23.93	23.26	22.90	***	***	***	20.64	21.73
L. BUDZ	25.22	24.73	27.00	25.87	25.56	25.47	21.54	23.06	22.14	***	***	***	25.17	32.75
MEAN	22.63	21.71	21.52	20.79	21.10	20.06	20.34	20.77	20.33	0.0	0.0	0.0	20.97	24.15
STD. DEV	5.21	4.92	5.91	4.71	6.04	5.73	4.41	4.92	4.47	0.0	0.0	0.0	5.29	5.53
N	12	12	12	12	12	12	12	12	12	0	0	0	12	12

PLASMA AMINO ACIDS

ASPARTAME , DOSE = 13 MG/KG

VARIABLE IS CYSTINE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
O. BUDZ	11.10	11.37	11.91	11.82	12.10	11.54	10.24	12.23	11.18	***	***	***	11.40	11.41
K. CRABO	11.12	9.58	9.61	9.32	9.58	8.72	8.50	9.31	8.92	***	***	***	8.91	11.00
C. NOTIS	9.02	10.90	10.67	8.81	8.76	10.37	10.20	9.45	10.54	***	***	***	10.57	9.53
P. MEYER	9.30	10.34	11.61	10.62	8.95	10.03	10.10	10.00	11.11	***	***	***	10.39	11.04
K. PUTTE	8.81	7.89	7.46	9.42	8.65	8.35	7.60	5.11	7.31	***	***	***	7.11	9.25
D. SHIEL	10.50	12.03	10.55	12.58	10.54	10.16	11.35	10.27	10.92	***	***	***	10.41	10.61
A. MITTI	12.70	12.98	10.37	11.81	10.03	9.25	10.20	9.24	9.61	***	***	***	12.21	12.81
N. MITTI	8.30	8.30	8.30	8.43	9.48	8.70	8.15	6.45	8.60	***	***	***	8.13	8.51
V. STIMA	9.33	8.48	9.47	8.95	9.72	7.99	10.09	10.43	11.24	***	***	***	9.58	9.77
T. VAGAI	13.28	11.26	10.50	11.93	10.00	12.39	10.44	10.16	9.29	***	***	***	9.53	7.10
M. WILLE	12.30	11.38	10.01	10.77	11.90	12.53	11.49	10.81	11.61	***	***	***	10.72	9.86
L. SHIEL	12.34	12.98	13.07	10.67	11.44	10.24	10.19	9.52	10.26	***	***	***	9.97	9.27
MEAN	10.65	10.52	10.33	10.52	10.12	10.01	9.33	9.83	10.05	0.0	0.0	0.0	9.93	9.89
STD. DEV	1.30	1.80	1.53	1.33	1.17	1.56	1.19	1.09	1.31	0.0	0.0	0.0	1.44	1.34
N	12	12	12	12	12	12	12	12	12	0	0	0	12	12

SEARLE STUDY - INDIVIDUAL DATA
PLASMA AMINO ACIDS

ASPARTATE , DOSE = 13 MG/KG

VARIABLE IS METHION

TABLE IV Plasma amino acid levels (μ moles/dl) in normal subjects administered ASPARTATE at 13 mg/kg/body weight.

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
M. MILLER	2.75	2.62	2.07	1.96	1.83	1.84	2.29	2.25	2.45	*****	*****	*****	2.43	3.04
L. SHIEL	2.83	2.82	2.54	2.10	2.39	1.63	2.26	1.96	2.70	*****	*****	*****	1.85	2.09
T. VANDI	3.19	2.03	3.40	2.45	3.50	2.53	2.53	2.77	2.33	*****	*****	*****	2.54	2.77
V. STIVA	2.62	2.53	3.53	3.05	2.50	2.47	2.25	2.18	2.10	*****	*****	*****	2.07	2.32
M. MITT	1.80	2.20	2.37	2.37	2.24	2.03	2.27	2.18	2.71	*****	*****	*****	2.15	2.82
A. MITT	2.49	2.02	2.49	2.56	2.40	2.10	2.30	2.51	2.61	*****	*****	*****	2.09	3.65
J. SHIEL	2.27	3.09	2.45	2.47	2.70	2.20	2.18	1.91	2.72	*****	*****	*****	2.27	3.45
K. PUTTE	2.54	2.15	1.82	2.12	2.26	1.60	2.13	1.78	1.83	*****	*****	*****	1.76	2.03
P. MEYER	2.75	2.62	3.00	2.54	2.26	1.98	2.23	2.42	2.29	*****	*****	*****	2.53	2.79
C. MORIS	1.89	3.33	2.63	2.85	1.93	2.33	2.44	1.99	3.39	*****	*****	*****	2.00	2.55
K. CRABR	2.80	2.35	3.21	2.67	2.63	1.79	2.51	2.00	2.31	*****	*****	*****	2.52	2.43
D. COAC	2.00	2.20	2.02	2.02	2.10	1.67	1.90	1.85	1.83	*****	*****	*****	2.44	2.92
MEAN	2.52	2.62	2.67	2.51	2.40	2.03	2.28	2.22	2.47	0.0	0.0	0.0	2.26	2.95
STD. DEV	0.40	0.36	0.52	0.47	0.42	0.30	0.17	0.37	0.42	0.0	0.0	0.0	0.29	0.54
N	12	12	12	12	12	12	12	12	12	0	0	0	12	12

PLASMA AMINO ACIDS

ASPARTATE , DOSE = 13 MG/KG

VARIABLE IS ISOLEUC

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
D. COAC	7.11	6.59	6.58	6.68	6.56	5.68	5.77	5.05	5.93	*****	*****	*****	8.37	12.30
C. MORIS	4.05	6.28	4.53	5.91	3.47	3.75	3.46	4.40	5.04	*****	*****	*****	4.97	6.44
K. CRABR	7.41	5.26	8.25	5.52	6.23	3.29	4.99	4.73	6.65	*****	*****	*****	7.13	9.57
P. MEYER	8.37	8.61	9.71	6.39	6.97	5.65	4.76	6.46	6.70	*****	*****	*****	7.86	10.08
L. SHIEL	7.52	7.59	8.82	6.45	6.45	5.64	5.51	5.76	5.79	*****	*****	*****	4.59	13.15
K. PUTTE	4.77	4.01	3.17	3.42	3.67	2.93	3.59	4.32	3.94	*****	*****	*****	4.31	4.48
V. STIVA	6.30	5.77	6.08	5.77	4.85	4.11	5.30	6.44	4.86	*****	*****	*****	5.00	5.32
A. MITT	6.54	6.68	5.92	7.20	7.11	5.26	5.72	6.44	7.36	*****	*****	*****	5.29	8.64
M. MITT	2.91	3.98	3.21	3.85	3.40	2.80	3.23	3.20	4.47	*****	*****	*****	4.42	4.17
T. VANDI	8.30	6.76	5.31	5.56	2.70	4.34	3.05	5.78	3.14	*****	*****	*****	5.27	7.92
L. SHIEL	5.44	5.13	4.08	5.56	3.37	2.66	3.51	4.05	6.54	*****	*****	*****	4.02	5.55
M. MILLER	5.89	6.03	4.29	3.32	3.01	4.24	4.49	4.75	7.13	*****	*****	*****	8.21	7.34
MEAN	6.30	6.09	5.67	5.12	4.82	4.20	4.45	5.05	5.63	0.0	0.0	0.0	5.84	7.63
STD. DEV	1.76	1.37	2.18	1.45	1.72	1.21	1.03	1.03	1.34	0.0	0.0	0.0	1.62	2.91
N	12	12	12	12	12	12	12	12	12	0	0	0	12	12

SEPARATE STUDY - INDIVIDUAL DATA
PLASMA AMINO ACIDS
ASPARTATE , DOSE = 13 MG/KG

TABLE IV Plasma amino acid levels (μ moles/dl) in normal subjects administered ASPARTATE at 13 mg/kg/body weight.

VARIABLE IS PHENYLAL

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
L. SHILL	5.37	5.29	5.14	4.58	4.22	3.88	3.43	4.07	5.33	*****	*****	*****	4.21	5.06
I. VONAGI	8.34	7.17	6.00	6.40	3.07	6.18	3.95	7.17	3.58	*****	*****	*****	8.44	7.10
K. PUTTE	4.80	4.13	3.30	3.56	4.13	3.00	4.13	3.65	3.70	*****	*****	*****	4.02	4.66
M. MITTI	4.40	4.73	3.60	4.38	3.57	3.79	3.60	3.40	3.91	*****	*****	*****	1.10	4.54
A. MITTI	5.62	5.06	5.67	5.15	5.80	4.70	5.22	5.65	6.03	*****	*****	*****	5.32	7.23
C. MITTI	4.40	5.33	5.44	5.27	4.31	4.19	4.80	4.04	5.53	*****	*****	*****	7.22	5.75
P. MITTI	6.03	6.49	4.68	4.77	4.32	4.60	5.67	5.10	6.83	*****	*****	*****	7.03	5.03
C. PUTIS	3.98	5.18	4.91	4.63	4.20	4.10	3.99	4.19	4.69	*****	*****	*****	4.37	4.72
V. STIPA	6.04	5.57	6.25	5.68	5.30	5.50	6.84	6.19	5.75	*****	*****	*****	5.03	5.84
K. GRAB	5.03	4.26	5.89	4.50	4.93	3.39	5.47	4.23	5.33	*****	*****	*****	6.07	6.75
C. GRAB	5.64	5.10	5.28	5.02	5.00	4.73	4.21	4.35	4.48	*****	*****	*****	5.19	7.38
MEAN	5.63	5.45	5.30	4.97	4.58	4.49	4.82	4.58	5.19	0.0	0.0	0.0	5.74	6.35
STD. DEV	1.24	0.88	1.05	0.74	0.86	0.96	0.95	1.15	1.10	0.0	0.0	0.0	1.41	1.50
N	12	12	12	12	12	12	12	12	12	0	0	0	12	12

PLASMA AMINO ACIDS

ASPARTATE , DOSE = 13 MG/KG

VARIABLE IS CARNITIN

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
G. HUAZ	9.03	8.54	9.72	8.56	8.69	7.00	5.99	5.69	5.86	*****	*****	*****	5.75	6.57
V. STIPA	5.06	5.25	4.80	6.00	4.80	3.85	5.17	5.60	3.93	*****	*****	*****	4.37	4.37
K. GRAB	5.80	2.57	6.68	5.36	5.78	4.42	5.50	3.48	4.72	*****	*****	*****	4.31	4.76
C. PUTIS	4.12	4.06	5.06	4.15	4.55	4.02	4.43	3.48	3.80	*****	*****	*****	3.92	5.13
P. PETER	7.04	7.30	7.16	6.84	6.36	6.00	6.01	6.76	5.89	*****	*****	*****	7.22	7.03
M. KILLE	5.26	5.70	5.10	4.29	3.59	4.23	5.04	4.70	5.85	*****	*****	*****	5.92	6.15
C. SHILL	6.96	3.05	8.62	9.24	7.89	3.15	8.44	6.78	7.04	*****	*****	*****	3.51	10.21
A. MITTI	6.21	0.97	6.72	6.43	6.28	5.25	5.08	6.35	6.04	*****	*****	*****	5.06	8.84
V. MITTI	2.90	3.19	3.47	3.70	4.38	3.50	4.01	3.22	3.24	*****	*****	*****	4.92	4.92
I. VONAGI	8.61	7.01	5.55	7.87	4.76	6.77	5.28	7.25	6.24	*****	*****	*****	3.50	5.93
K. PUTTE	4.34	4.02	3.87	4.99	6.00	4.04	4.92	4.72	3.75	*****	*****	*****	3.73	4.34
L. SHILL	5.90	5.25	5.38	6.21	4.32	4.07	4.47	4.05	5.13	*****	*****	*****	6.73	6.11
MEAN	6.34	5.63	6.04	6.18	5.67	5.11	5.36	5.19	5.13	0.0	0.0	0.0	5.27	6.36
STD. DEV	1.69	1.80	1.65	1.82	1.49	1.52	1.14	1.44	1.21	0.0	0.0	0.0	1.61	1.74
N	12	12	12	12	12	12	12	12	12	0	0	0	12	12

SEATTLE STUDY - INDIVIDUAL DATA
PLASMA AMINO ACIDS

TABLE IV Plasma amino acid levels (umoles/dl) in normal subjects administered ASPARTATE at 13 mg/kg/body weight.

ASPARTATE • DOSE = 13 MG/KG

VARIABLE IS LYSINE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
L. SMITH	21.29	20.23	20.65	22.79	17.37	14.09	18.52	17.53	20.68	*****	*****	*****	21.01	22.00
K. ROTH	24.03	20.02	20.28	20.02	23.97	19.71	22.31	19.55	19.80	*****	*****	*****	16.33	21.44
T. VOGEL	19.56	21.12	18.60	18.45	18.70	16.95	16.30	13.84	14.59	*****	*****	*****	15.02	14.45
M. ALLEN	11.93	14.23	15.90	14.23	17.10	17.23	16.75	11.60	12.30	*****	*****	*****	12.11	13.70
A. WHITE	16.07	17.59	17.91	19.75	20.46	15.31	17.75	19.27	20.02	*****	*****	*****	19.27	22.16
C. THIEL	17.39	21.12	23.25	21.65	21.33	20.29	20.52	20.23	21.02	*****	*****	*****	14.00	11.61
C. LUTHE	12.00	15.04	13.55	15.36	16.37	14.28	14.32	13.61	15.62	*****	*****	*****	14.13	11.50
V. MILES	27.29	24.01	20.58	21.33	16.75	19.08	24.68	20.08	20.52	*****	*****	*****	27.11	24.02
R. NELSON	25.68	29.51	24.71	26.73	23.26	22.21	22.92	24.65	23.81	*****	*****	*****	24.61	23.78
K. GRASS	20.05	17.54	29.44	22.17	25.24	16.33	22.06	21.64	24.17	*****	*****	*****	24.24	21.02
V. STIVA	25.02	23.50	24.14	24.81	22.79	20.31	22.11	25.13	25.83	*****	*****	*****	23.67	25.91
D. CLAR	20.56	20.03	20.41	20.36	21.12	18.12	16.73	15.22	19.79	*****	*****	*****	22.34	24.01
MEAN	20.57	18.90	20.57	20.65	20.53	17.87	20.00	20.47	20.37	0.0	0.0	0.0	1.0	21.74
STD. DEV	5.49	6.37	3.97	3.55	2.92	2.79	2.90	4.55	4.39	0.0	0.0	0.0	4.00	5.89
N	12	12	12	12	12	12	12	12	12	0	0	0	12	12

PLASMA AMINO ACIDS

ASPARTATE • DOSE = 13 MG/KG

VARIABLE IS HISTIDIN

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
D. BOYD	10.61	11.04	9.20	8.58	9.06	10.17	8.24	10.07	8.59	*****	*****	*****	10.95	5.71
K. GRASS	10.17	6.21	11.35	8.02	9.01	7.14	2.01	7.56	9.77	*****	*****	*****	10.07	9.31
V. STIVA	11.21	13.62	12.10	12.24	11.13	11.10	11.05	12.68	10.49	*****	*****	*****	11.37	10.74
M. WILK	12.59	10.11	12.05	10.22	11.06	8.95	10.20	11.77	11.80	*****	*****	*****	12.14	10.93
P. MEYER	11.01	10.76	10.81	9.68	9.66	7.04	8.66	12.10	9.61	*****	*****	*****	5.67	9.22
C. SMITH	8.58	10.45	10.65	11.65	8.64	9.53	10.61	10.11	9.10	*****	*****	*****	6.96	6.41
A. WHITE	11.04	13.99	9.50	1.00	10.12	9.33	8.74	11.49	10.85	*****	*****	*****	9.36	11.24
M. ALLEN	4.90	5.39	5.53	5.17	7.13	5.83	5.23	4.41	4.55	*****	*****	*****	5.12	5.41
K. ROTH	11.55	10.45	8.95	11.72	11.58	9.30	10.92	11.08	9.99	*****	*****	*****	10.05	11.57
C. WOLFE	7.23	10.76	11.51	8.36	7.97	10.10	6.41	8.32	9.53	*****	*****	*****	10.05	9.66
T. VOGEL	11.72	9.28	7.30	8.90	7.45	5.59	7.02	11.17	7.32	*****	*****	*****	11.75	7.63
L. SMITH	12.00	12.42	12.32	11.81	10.72	10.04	11.17	13.12	12.94	*****	*****	*****	11.33	12.06
MEAN	10.31	10.13	10.07	9.01	7.64	5.10	9.02	10.10	9.53	0.0	0.0	0.0	4.95	9.71
STD. DEV	2.28	2.31	2.09	3.23	1.54	1.46	1.83	2.29	2.06	0.0	0.0	0.0	2.00	1.97
N	12	12	12	12	12	12	12	12	12	0	0	0	12	12

SEARCH STUDY - INDIVIDUAL DATA

ASPARTATE AMINO ACIDS

ASPARTATE , DOSE = 13 MG/KG

VARIABLE IS VALRINE

TABLE V

Erythrocyte free amino acid levels (μ moles/100 gm) in normal subjects-administered-ASPARTATE at 13-mg/kg/body-weight.

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
T. VONCI	5.49	3.24	5.35	13.15	4.42	3.57	5.08	3.51	13.90	*****	*****	*****	4.03	23.66
C. MORIS	1.30	1.57	2.75	3.78	10.72	10.00	13.91	7.09	12.60	*****	*****	*****	2.43	3.82
V. MITT	5.38	13.10	6.87	3.47	4.06	3.40	5.43	4.06	3.67	*****	*****	*****	5.59	5.59
A. MITT	10.72	3.69	9.11	4.26	4.48	6.16	3.40	4.31	2.77	*****	*****	*****	12.75	4.10
P. MEYER	3.99	2.24	7.11	10.36	2.18	4.92	5.16	2.56	12.53	*****	*****	*****	11.07	2.64
K. POITE	9.33	4.85	2.35	4.02	2.15	0.23	3.00	3.64	15.48	*****	*****	*****	4.10	2.62
V. STIMA	14.03	7.99	4.07	9.06	5.05	9.99	12.73	8.97	8.50	*****	*****	*****	21.15	6.02
N. GRABER	2.70	3.27	3.30	2.68	3.11	3.31	3.72	3.41	3.33	*****	*****	*****	2.13	2.54
V. MILE	5.35	18.62	4.03	5.33	5.55	2.21	2.27	24.00	14.43	*****	*****	*****	2.37	6.20
C. EDZEL	3.15	4.74	4.55	3.15	3.00	2.50	2.27	4.35	3.75	*****	*****	*****	6.84	4.57
E. SMIL	13.11	13.98	7.56	3.30	4.17	4.05	8.81	16.30	3.44	*****	*****	*****	3.48	17.26
C. SMIL	1.02	4.16	2.03	3.07	1.93	3.04	1.93	2.26	2.28	*****	*****	*****	3.41	2.30
MEAN	6.50	6.62	4.53	5.54	4.24	5.00	5.73	7.12	8.47	0.0	0.0	0.0	7.05	7.39
STD. DEV	4.47	5.45	2.28	3.39	2.36	2.64	4.00	6.55	5.95	0.0	0.0	0.0	5.69	7.66
N	12	12	12	12	12	12	12	12	12	0	0	0	12	12

ASPARTATE AMINO ACIDS

ASPARTATE , DOSE = 13 MG/KG

VARIABLE IS ASPARTATE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
C. SMIL	26.61	28.21	28.53	28.80	26.25	28.27	27.64	28.50	26.04	*****	*****	*****	28.16	23.56
E. SMIL	24.24	27.44	29.07	27.17	27.32	28.21	20.69	26.25	26.36	*****	*****	*****	28.03	23.17
C. EDZEL	22.35	24.12	24.25	23.45	24.09	22.67	26.42	26.56	24.21	*****	*****	*****	21.41	27.35
V. MILE	26.10	27.19	26.64	27.71	23.46	29.31	27.93	20.14	29.83	*****	*****	*****	20.15	25.72
K. POITE	23.23	27.22	24.19	24.05	21.73	25.37	26.90	26.41	26.03	*****	*****	*****	24.39	14.37
P. MEYER	29.24	28.95	29.46	31.57	25.56	28.74	23.43	30.53	30.80	*****	*****	*****	26.55	29.45
A. MITT	13.81	15.01	16.51	16.22	15.37	16.27	18.53	16.50	16.84	*****	*****	*****	19.67	15.82
V. STIMA	27.69	25.24	26.92	27.88	29.07	27.32	23.94	25.77	27.74	*****	*****	*****	30.50	27.47
C. MORIS	28.11	32.48	25.53	26.31	26.31	27.07	26.66	26.66	27.20	*****	*****	*****	20.13	25.21
V. STIMA	18.01	16.56	20.49	13.60	20.07	20.34	20.66	19.95	15.19	*****	*****	*****	20.26	23.22
T. VONCI	11.13	5.39	5.45	5.50	4.56	6.66	6.52	6.05	6.53	*****	*****	*****	7.42	5.69
T. VONCI	19.04	21.64	24.77	22.33	22.62	24.28	20.24	23.40	22.09	*****	*****	*****	22.14	24.88
MEAN	22.87	23.50	23.63	23.27	23.07	23.50	23.57	24.09	23.53	0.0	0.0	0.0	23.25	23.91
STD. DEV	6.00	7.39	6.83	6.58	7.06	6.55	6.35	6.57	6.72	0.0	0.0	0.0	6.71	6.79
N	12	12	12	12	12	12	12	12	12	0	0	0	12	12

SEARLE STUDY - INDIVIDUAL DATA
REC. AMINO ACIDS

TABLE V Erythrocyte free amino acid levels (umoles/100 gm) in normal subjects administered ASPARTATE at 13 mg/kg/body weight.

ASPARTATE , DOSE = 13 MG/KG

VARIABLE IS THREONIN

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
T. VUCCI	8.61	8.89	10.62	10.66	9.29	9.79	5.75	8.81	8.54	*****	*****	*****	6.94	10.47
V. STINA	16.01	11.55	10.81	12.01	10.10	7.09	11.62	10.20	10.18	*****	*****	*****	10.37	10.54
M. WITTI	12.38	12.20	11.62	11.22	11.96	12.57	13.06	13.27	13.06	*****	*****	*****	12.97	11.95
A. WITTI	9.55	9.12	9.64	9.81	9.48	8.59	5.02	8.54	8.33	*****	*****	*****	8.70	14.35
K. FOTTE	15.38	16.02	14.64	16.16	15.34	15.19	16.06	12.29	12.36	*****	*****	*****	10.57	12.31
P. MEYER	8.54	8.42	9.09	10.20	8.66	8.13	7.14	4.26	8.13	*****	*****	*****	6.24	11.61
C. MORIS	13.63	13.56	16.12	15.15	16.63	15.11	16.14	14.18	13.72	*****	*****	*****	13.13	23.84
K. GRABER	9.12	10.26	9.55	9.04	10.40	8.58	10.05	8.42	8.65	*****	*****	*****	7.52	9.33
L. SMILL	11.26	11.40	11.38	11.53	11.53	10.37	10.89	10.77	11.66	*****	*****	*****	10.70	10.19
M. WILLE	9.32	9.31	9.63	10.05	9.45	9.63	9.30	9.09	8.67	*****	*****	*****	8.62	9.97
M. BOZAR	9.21	8.80	9.55	8.17	8.18	7.36	8.05	8.72	7.24	*****	*****	*****	7.30	10.87
C. SMILL	10.80	11.47	11.62	11.56	10.22	10.53	10.76	9.92	8.52	*****	*****	*****	8.94	11.21
MEAN	11.12	10.95	11.12	11.30	10.99	10.28	11.08	10.29	9.56	0.0	0.0	0.0	9.39	12.25
STD. DEV	2.08	2.31	2.24	2.32	2.67	2.72	2.93	1.95	2.18	0.0	0.0	0.0	2.21	3.92
N	12.	12.	12.	12.	12.	12.	12.	12.	12.	0.	0.	0.	12.	12.

REC AMINO ACIDS

ASPARTATE , DOSE = 13 MG/KG

VARIABLE IS SERINE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
C. SMILL	15.63	12.10	11.75	11.89	11.13	11.30	11.14	11.31	10.77	*****	*****	*****	10.52	12.23
D. BOZAR	10.89	12.13	11.25	10.42	10.49	9.66	11.21	12.14	10.51	*****	*****	*****	10.45	12.13
K. GRABER	8.76	10.07	9.34	8.25	9.75	8.25	9.61	9.37	9.75	*****	*****	*****	8.30	8.76
L. SMILL	9.24	8.71	8.51	8.62	8.26	9.20	8.32	8.32	8.28	*****	*****	*****	8.97	8.43
M. WILLE	10.87	11.09	11.71	11.76	11.31	10.13	9.85	10.31	11.16	*****	*****	*****	10.36	10.50
K. FOTTE	12.93	12.87	11.65	12.44	11.85	12.78	12.69	11.47	10.91	*****	*****	*****	9.94	11.01
C. MORIS	10.32	10.96	11.58	10.79	12.07	10.97	11.68	11.22	11.03	*****	*****	*****	10.31	15.33
P. MEYER	9.71	10.31	11.15	12.15	10.57	10.61	9.50	10.86	11.07	*****	*****	*****	5.75	12.95
A. WITTI	13.24	12.13	12.38	12.70	12.21	11.41	11.86	11.37	11.31	*****	*****	*****	11.39	14.88
M. WITTI	17.75	16.76	17.41	14.75	15.36	16.68	17.09	16.41	16.42	*****	*****	*****	17.78	16.85
V. STINA	14.18	9.83	5.72	11.00	9.26	7.48	11.39	10.12	10.15	*****	*****	*****	9.63	9.76
T. VUCCI	12.54	12.99	12.93	13.26	13.01	13.13	12.83	13.21	13.30	*****	*****	*****	11.78	12.61
MEAN	12.17	11.66	11.61	11.51	11.24	11.02	11.51	11.34	11.22	0.0	0.0	0.0	10.92	12.15
STD. DEV	2.73	2.07	2.23	1.84	1.95	2.40	2.45	2.64	2.00	0.0	0.0	0.0	2.38	2.61
N	12.	12.	12.	12.	12.	12.	12.	12.	12.	0.	0.	0.	12.	12.

SEARLE STUDY - INDIVIDUAL DATA
REC AMINO ACIDS

TABLE V Erythrocyte free amino acid levels (umoles/100 gm) in normal subjects administered ASPARTATE at 13 mg/kg/body weight.

ASPARTATE , DOSE = 13 MG/KG

VARIABLE IS THREONIN

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
T. VUCCI	8.61	8.89	10.62	10.66	9.29	9.79	9.75	9.81	9.54	*****	*****	*****	24 HR
V. STIVA	16.01	11.55	10.81	12.01	10.10	7.09	11.62	10.20	10.18	*****	*****	6.93	10.47
M. WITTI	12.38	12.20	11.62	11.22	11.96	12.57	13.06	12.27	13.06	*****	*****	10.37	10.54
A. CILTI	9.95	9.12	9.84	9.81	9.48	8.59	9.02	8.55	8.33	*****	*****	12.97	11.95
K. FOTTE	15.35	16.02	14.64	16.16	15.34	15.19	16.04	12.29	12.36	*****	*****	8.70	14.85
P. MAYER	8.94	8.42	9.09	10.23	8.66	8.13	7.14	8.26	8.15	*****	*****	10.57	12.31
C. MORIS	13.63	13.56	16.12	15.15	16.63	15.11	16.14	14.18	13.72	*****	*****	6.24	11.62
K. CARRA	9.12	10.26	9.55	9.04	10.40	8.98	10.05	8.42	8.65	*****	*****	13.13	23.56
L. SHIEL	11.26	11.40	11.38	11.53	11.53	10.37	10.89	10.77	11.65	*****	*****	7.52	9.33
P. FILLE	9.32	9.21	9.83	10.05	9.65	9.63	9.39	9.03	8.67	*****	*****	10.70	10.19
O. ECAR	9.01	8.80	8.55	8.17	8.18	7.36	8.00	7.72	7.24	*****	*****	8.52	9.57
C. SHIEL	10.80	11.47	11.62	11.56	10.22	10.53	10.76	9.92	8.52	*****	*****	7.31	10.87
MEAN	11.12	10.95	11.12	11.30	10.99	10.28	11.08	10.29	9.56	0.0	0.0	9.39	12.25
STD. DEV	2.08	2.31	2.24	2.32	2.67	2.72	2.93	1.95	2.19	0.0	0.0	2.21	3.52
N	12.	12.	12.	12.	12.	12.	12.	12.	12.	0.	0.	12.	12.

REC AMINO ACIDS

ASPARTATE , DOSE = 13 MG/KG

VARIABLE IS SERINE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
C. SHIEL	15.63	12.10	11.75	11.89	11.13	11.30	11.14	11.33	10.77	*****	*****	10.42	12.23
J. LOAZ	10.89	12.13	11.25	12.01	10.49	9.66	11.21	12.14	10.51	*****	*****	10.46	12.10
K. CARRA	8.76	10.07	9.24	8.25	9.75	8.25	9.51	9.37	9.75	*****	*****	8.50	8.76
L. SHIEL	9.24	8.71	8.51	8.62	8.25	8.20	8.32	8.32	8.28	*****	*****	8.37	8.43
M. FILLE	10.87	11.09	11.71	11.76	11.31	10.13	9.85	10.31	11.15	*****	*****	10.38	10.90
K. FOTTE	12.93	12.87	11.65	12.44	11.85	12.78	12.69	11.47	10.91	*****	*****	9.94	11.01
C. MORIS	10.32	10.96	11.58	10.79	12.02	10.97	11.68	11.22	11.03	*****	*****	13.31	15.33
P. MAYER	9.71	10.31	11.15	12.15	10.57	9.50	10.86	11.07	11.07	*****	*****	9.75	12.95
A. WITTI	13.24	12.13	12.38	12.70	12.21	11.41	11.86	11.37	11.31	*****	*****	11.53	14.88
M. WITTI	17.75	16.76	17.41	14.75	15.86	16.68	17.99	16.41	16.42	*****	*****	17.73	16.89
V. STIVA	14.18	9.83	9.72	11.00	9.26	7.48	11.39	10.12	10.15	*****	*****	9.63	9.76
T. VUCCI	12.54	12.99	12.93	13.26	13.01	13.13	12.83	13.21	13.30	*****	*****	11.78	12.61
MEAN	12.17	11.66	11.61	11.51	11.24	11.02	11.51	11.34	11.22	0.0	0.0	10.92	12.15
STD. DEV	2.73	2.07	2.23	1.84	1.95	2.40	2.45	2.04	2.00	0.0	0.0	2.38	7.61
N	12.	12.	12.	12.	12.	12.	12.	12.	12.	0.	0.	12.	12.

SEARLE STUDY - INDIVIDUAL DATA
AMINO ACIDS

TABLE V Erythrocyte free amino acid levels (umoles/100 gm) in normal subjects administered ASPARTATE at 13 mg/kg/body weight.

ASPARTATE DOSE = 13 MG/KG

VARIABLE IS ASPARAG

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
T. VUNCI	12.45	13.91	14.33	12.80	12.61	12.81	10.02	10.01	13.49	*****	*****	*****	10.37	15.61
V. SUMA	12.46	13.75	12.45	16.89	14.54	13.72	15.10	11.51	13.09	*****	*****	*****	11.51	11.82
M. MITTI	15.28	12.61	11.98	11.55	14.46	12.43	15.53	12.62	17.53	*****	*****	*****	16.41	13.01
A. MITTI	11.37	8.57	10.10	10.37	8.59	7.88	7.55	10.59	9.08	*****	*****	*****	5.48	12.31
P. MEYER	14.35	15.20	18.47	11.35	19.53	17.69	11.76	18.57	14.43	*****	*****	*****	13.15	13.15
C. MORIS	13.64	14.93	14.92	12.43	16.17	12.77	13.89	17.74	16.21	*****	*****	*****	10.95	14.43
L. SHIEL	10.13	9.02	7.66	9.66	12.31	10.53	14.39	12.64	10.83	*****	*****	*****	12.07	9.05
K. POTTE	13.95	14.99	16.78	14.11	17.91	17.98	17.56	16.57	15.44	*****	*****	*****	13.48	17.87
K. GRABR	5.07	6.49	7.73	7.34	6.83	5.57	8.00	6.46	8.04	*****	*****	*****	7.67	7.55
M. MILLE	16.79	13.65	10.94	13.78	12.93	16.33	12.78	20.44	17.89	*****	*****	*****	13.21	12.57
O. BUZZ	10.84	19.69	10.68	10.84	9.35	9.50	9.76	8.27	9.51	*****	*****	*****	9.23	12.33
C. SHIEL	19.10	13.29	17.15	11.32	14.51	11.22	18.31	10.45	18.92	*****	*****	*****	10.66	13.71

MEAN	12.62	13.34	12.77	11.87	13.52	12.47	12.89	12.59	13.74	C.0	0.0	C.0	11.69	12.90
STD. DEV	3.08	3.59	3.60	2.42	3.87	3.68	3.54	4.37	3.60	0.0	0.0	0.0	2.76	2.64
N	12.	12.	12.	12.	12.	12.	12.	12.	12.	C.	C.	0.	12.	12.

AUC AMINO ACIDS

ASPARTATE DOSE = 13 MG/KG

VARIABLE IS GLUTAMIN

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
D. SHIEL	50.61	52.66	48.42	54.59	47.54	52.01	51.39	50.20	47.00	*****	*****	*****	47.58	43.46
C. BUZZ	58.09	62.10	58.61	55.40	55.66	53.11	57.82	63.12	60.84	*****	*****	*****	57.49	62.39
K. POTTE	55.13	55.46	54.11	54.11	50.00	50.11	48.86	46.87	48.21	*****	*****	*****	44.21	48.11
C. MORIS	33.10	34.81	35.92	34.30	33.94	34.35	35.58	33.09	34.77	*****	*****	*****	35.05	37.58
K. GRABR	44.49	52.02	47.56	49.44	50.88	48.31	48.08	46.25	52.33	*****	*****	*****	46.79	47.91
P. MEYER	46.99	47.52	51.15	53.16	51.51	45.04	45.75	47.82	52.10	*****	*****	*****	47.52	44.94
P. SHIEL	44.20	45.78	55.02	56.55	52.70	51.84	44.16	54.41	54.39	*****	*****	*****	46.14	52.27
L. SHIEL	44.77	42.70	42.06	42.19	43.26	41.21	43.62	43.52	47.43	*****	*****	*****	43.07	36.66
A. MITTI	60.43	63.83	64.68	66.80	65.29	63.61	66.35	63.68	61.26	*****	*****	*****	62.93	75.09
M. MITTI	61.37	61.23	55.55	49.58	50.95	56.75	55.05	53.84	48.13	*****	*****	*****	50.90	56.28
V. SUMA	48.33	43.41	47.03	55.00	43.98	52.86	48.26	42.62	44.14	*****	*****	*****	48.87	47.37
T. VUNCI	54.89	51.60	58.36	62.13	61.79	60.78	62.72	62.46	59.49	*****	*****	*****	56.41	58.80

MEAN	50.20	51.10	51.91	52.83	50.63	50.83	50.67	50.74	50.84	0.0	0.0	0.0	49.53	51.15
STD. DEV	8.22	8.76	8.13	8.41	8.29	8.05	8.58	9.24	7.65	0.0	0.0	0.0	7.64	10.59
N	12.	12.	12.	12.	12.	12.	12.	12.	12.	C.	C.	0.	12.	12.

SEARLE STUDY - INDIVIDUAL DATA
REC AMINO ACIDS

TABLE V Erythrocyte free amino acid levels (umoles/100 gm) in normal subjects administered ASPARTATE at 13 mg/kg/body weight.

ASPARTATE , DOSE = 13 MG/KG

VARIABLE IS THREONIN

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
T. VUNCI	8.61	8.89	10.62	10.66	9.29	9.79	9.75	8.81	8.54	*****	*****	*****	6.93	10.47
V. STIVA	16.01	11.55	10.81	12.01	10.10	7.09	11.62	10.20	10.18	*****	*****	*****	10.37	10.54
M. WITTI	12.38	12.20	11.62	11.22	11.96	12.57	13.06	13.27	13.06	*****	*****	*****	12.97	11.95
A. WITTI	9.55	9.12	9.64	9.81	9.48	8.59	9.88	8.56	8.33	*****	*****	*****	8.79	14.85
K. FOTTE	15.39	16.02	14.62	16.16	15.34	15.19	16.66	12.28	12.36	*****	*****	*****	10.57	12.31
P. MEYER	8.94	8.42	9.09	10.20	8.66	8.13	7.14	9.26	8.15	*****	*****	*****	6.28	11.61
C. MORIS	13.63	13.56	16.12	15.15	16.63	15.11	16.14	14.18	13.72	*****	*****	*****	12.13	23.84
K. CRAB	9.12	10.26	9.55	9.04	10.40	8.99	10.05	8.42	8.65	*****	*****	*****	7.52	9.33
L. SHIEL	11.26	11.40	11.38	11.53	11.53	10.37	10.89	10.77	11.66	*****	*****	*****	10.70	10.19
P. WILLE	9.32	9.21	9.83	10.05	9.65	9.63	9.90	9.09	8.67	*****	*****	*****	8.62	9.87
D. BEAZ	8.01	8.80	8.55	8.17	8.18	7.36	8.06	6.72	7.24	*****	*****	*****	7.31	10.87
C. SHIEL	10.80	11.47	11.62	11.56	10.22	10.53	10.76	9.92	8.52	*****	*****	*****	8.90	11.21

MEAN	11.12	10.95	11.12	11.30	10.99	10.28	11.08	10.29	9.56	G.0	G.0	0.0	9.39	12.25
STD. DEV	2.68	2.31	2.24	2.32	2.67	2.72	2.93	1.95	2.18	0.0	0.0	G.0	2.21	3.92
N	12	12	12	12	12	12	12	12	12	0	0	0	12	12

REC AMINO ACIDS

ASPARTATE , DOSE = 13 MG/KG

VARIABLE IS SERINE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
C. SHIEL	15.63	12.10	11.75	11.89	11.13	11.30	11.14	11.33	10.77	*****	*****	*****	10.42	12.23
J. BOAZ	10.89	12.13	11.25	10.42	10.49	9.66	11.21	12.14	10.51	*****	*****	*****	10.86	12.13
K. CRAB	9.76	10.07	9.24	8.25	9.75	8.25	9.61	9.37	9.75	*****	*****	*****	8.80	8.75
L. SHIEL	9.24	8.71	8.51	8.62	8.26	9.20	8.32	8.32	8.28	*****	*****	*****	8.87	8.43
M. WILLE	10.87	11.09	11.71	11.76	11.31	10.13	9.85	10.31	11.16	*****	*****	*****	10.38	10.50
K. FOTTE	12.93	12.87	11.65	12.44	11.85	12.78	12.69	11.47	10.91	*****	*****	*****	9.94	11.01
C. MORIS	10.32	10.56	11.58	10.79	12.02	10.97	11.68	11.22	11.07	*****	*****	*****	13.31	15.33
P. MEYER	9.71	10.31	11.15	12.15	10.57	10.61	9.50	10.86	11.07	*****	*****	*****	5.75	12.95
A. WITTI	13.24	12.13	12.38	12.70	12.21	11.41	11.86	11.37	11.31	*****	*****	*****	11.58	14.88
M. WITTI	17.75	16.76	17.41	14.75	15.86	16.68	17.99	16.41	16.42	*****	*****	*****	17.78	16.85
V. STIVA	14.18	9.83	9.72	11.00	9.26	7.48	11.39	10.12	10.15	*****	*****	*****	9.63	9.76
T. VUNCI	12.54	12.99	12.93	13.26	13.01	13.13	12.83	13.21	13.30	*****	*****	*****	11.78	12.61

MEAN	12.17	11.66	11.61	11.51	11.24	11.02	11.51	11.34	11.22	0.0	0.0	0.0	10.82	12.15
STD. DEV	2.73	2.07	2.23	1.84	1.95	2.40	2.45	2.04	2.00	G.0	G.0	G.0	2.38	2.61
N	12	12	12	12	12	12	12	12	12	0	0	0	12	12

SEARLE STUDY - INDIVIDUAL DATA
RBC AMINO ACIDS

TABLE V Erythrocyte free amino acid levels (umoles/100 gm) in normal subjects administered ASPARTATE at 13 mg/kg/body weight.

ASPARTATE , DOSE = 13 MG/KG

VARIABLE IS GLUTAMATE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
T. VONCI	23.11	22.56	22.33	23.11	22.11	20.21	21.00	20.51	15.47	*****	*****	*****	14.11	19.95
V. STIMA	20.49	19.58	18.89	19.29	18.34	20.59	20.31	19.84	19.19	*****	*****	*****	21.30	17.60
V. MITI	30.00	30.09	30.45	29.12	30.73	30.45	22.92	31.50	30.85	*****	*****	*****	31.40	31.77
V. MITI	23.49	22.13	20.12	22.20	20.15	20.01	22.33	16.76	20.75	*****	*****	*****	21.77	21.72
P. MEIER	11.92	10.90	12.76	15.14	12.00	13.17	11.19	12.00	16.01	*****	*****	*****	16.22	14.41
L. SHIEL	22.05	20.41	21.40	18.78	20.52	20.92	20.86	22.24	19.71	*****	*****	*****	21.35	22.69
V. MILLE	27.01	28.25	26.43	27.40	27.25	31.37	32.91	32.90	29.07	*****	*****	*****	31.10	26.59
K. CRABE	13.62	14.55	14.75	11.79	15.56	12.71	14.41	13.87	15.11	*****	*****	*****	17.02	12.27
C. MORIS	10.14	10.44	11.44	12.86	16.39	11.91	13.50	13.64	13.23	*****	*****	*****	15.51	13.22
K. FORTI	32.11	33.41	31.00	31.00	30.16	30.11	28.91	25.81	31.11	*****	*****	*****	32.11	32.41
D. BOAZ	20.35	22.40	20.39	20.17	19.17	19.34	22.36	25.55	21.95	*****	*****	*****	21.08	21.63
C. SHIEL	3.27	14.36	10.36	8.06	8.84	11.08	9.91	11.05	10.74	*****	*****	*****	14.00	9.52
MEAN	20.21	20.74	20.03	19.91	20.11	20.20	20.93	20.79	20.22	C.0	C.0	C.0	21.55	20.55
STD. DEV	7.76	7.36	6.52	7.13	6.74	7.30	7.81	7.69	6.84	C.0	C.0	C.0	6.66	7.65
N	12	12	12	12	12	12	12	12	12	C.	C.	C.	12	12

RBC AMINO ACIDS

ASPARTATE , DOSE = 13 MG/KG

VARIABLE IS PROLINE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
D. SHIEL	16.70	15.77	20.09	19.40	21.61	18.90	20.63	15.15	16.51	*****	*****	*****	12.39	16.98
K. FORTI	9.55	9.90	10.73	11.66	11.37	9.90	5.69	7.39	8.22	*****	*****	*****	8.00	9.11
C. MORIS	7.52	7.43	10.48	11.44	15.70	10.38	9.77	10.52	12.13	*****	*****	*****	9.76	10.04
D. BOAZ	14.16	15.44	15.50	16.15	16.03	14.27	15.57	15.65	12.46	*****	*****	*****	11.65	17.32
K. CRABE	15.79	17.71	17.17	16.57	19.92	17.60	17.43	14.50	15.98	*****	*****	*****	14.52	16.25
V. MILLE	8.14	10.06	11.37	8.71	8.02	9.00	8.09	7.55	7.54	*****	*****	*****	4.58	5.72
P. MEIER	10.54	11.04	11.28	14.04	13.05	13.55	10.77	7.07	10.53	*****	*****	*****	8.06	15.82
A. MITI	16.75	16.18	16.78	18.46	18.42	17.22	16.72	15.65	13.50	*****	*****	*****	12.42	22.45
L. SHIEL	8.62	7.70	9.50	11.57	11.45	10.67	8.73	7.81	10.71	*****	*****	*****	6.99	5.99
V. STIMA	17.91	15.38	16.36	18.73	16.46	14.34	14.36	11.11	10.76	*****	*****	*****	8.43	7.62
M. MITI	8.81	8.82	9.73	9.24	10.09	11.31	13.29	12.02	13.30	*****	*****	*****	11.93	5.64
T. VONCI	19.71	17.81	18.50	18.11	18.61	18.64	15.50	15.51	15.01	*****	*****	*****	16.71	16.98
MEAN	12.85	12.77	13.99	14.51	15.06	13.81	13.38	11.71	12.22	0.0	0.0	0.0	10.45	13.08
STD. DEV	4.41	3.96	3.84	3.87	4.25	3.55	3.97	3.52	2.83	0.0	0.0	0.0	3.43	5.75
N	12	12	12	12	12	12	12	12	12	C.	C.	C.	12	12

SEARLE STUDY - INDIVIDUAL DATA
RUC AMINO ACIDS

TABLE V Erythrocyte free amino acid levels (umoles/100 gm) in normal
.subjects administered ASPARTATE at 13 mg/kg/body weight.

ASPARTATE , DOSE = 13 MG/KG

VARIABLE IS GLYCINE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
I. VNGI	38.73	31.42	36.00	22.68	30.52	38.36	34.51	33.51	*****	*****	*****	34.51	38.11
M. WITI	41.45	39.66	35.71	39.68	39.37	37.24	36.02	37.21	*****	*****	*****	38.45	39.21
V. STMA	37.15	36.25	36.23	33.38	36.95	35.80	34.65	36.11	*****	*****	*****	34.13	30.54
L. SHIEL	32.51	32.61	31.43	31.20	30.75	30.01	30.24	30.26	*****	*****	*****	30.30	31.15
A. MILE	28.72	29.53	29.01	28.40	29.02	29.98	31.46	31.61	*****	*****	*****	29.58	29.06
A. WITI	31.50	32.43	34.54	34.54	34.42	34.10	31.95	31.43	*****	*****	*****	33.23	32.40
F. PETER	25.57	25.70	29.42	32.58	27.25	28.46	25.47	29.54	*****	*****	*****	24.51	31.19
K. CRAB	30.07	31.75	31.93	33.58	35.91	34.56	34.90	32.54	*****	*****	*****	30.65	31.86
N. PUTTE	29.65	32.30	22.26	30.61	27.82	24.65	23.81	24.61	*****	*****	*****	23.75	21.64
J. AGAZ	33.23	34.16	22.61	32.92	29.47	20.11	20.64	30.16	*****	*****	*****	31.11	29.64
C. MORIS	24.25	29.70	31.82	29.72	33.67	30.64	34.53	31.25	*****	*****	*****	30.37	32.92
U. SHIEL	33.52	32.41	33.61	35.10	35.12	34.16	22.81	31.85	*****	*****	*****	33.16	31.93
MEAN	32.54	32.36	33.13	32.87	32.66	31.13	34.78	32.03	0.0	0.0	0.0	31.25	31.75
STD. DEV	4.64	3.44	2.85	2.90	4.30	5.11	9.25	3.19	0.0	0.0	0.0	4.07	4.40
N	12.	12.	12.	12.	12.	12.	12.	12.	0.	0.	0.	12.	12.

RUC AMINO ACIDS

ASPARTATE , DOSE = 13 MG/KG

VARIABLE IS ALANINE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
C. SHIEL	18.87	19.54	25.62	26.70	29.40	29.09	24.09	28.50	*****	*****	*****	20.40	29.92
U. PUAZ	33.50	34.16	36.47	36.56	32.27	34.80	22.91	31.59	*****	*****	*****	26.34	44.16
C. MORIS	22.70	25.96	34.22	27.79	31.37	29.31	28.93	28.03	*****	*****	*****	15.13	29.62
K. CRAB	28.57	33.74	32.57	31.47	38.37	33.04	27.29	30.48	*****	*****	*****	32.48	34.10
F. PETER	23.54	29.66	35.45	35.12	34.01	37.53	22.15	32.95	*****	*****	*****	25.39	31.33
N. PUTTE	27.41	27.30	29.11	20.80	32.93	37.11	26.11	28.48	*****	*****	*****	23.62	28.21
V. STMA	31.19	27.30	30.33	36.97	32.44	34.34	26.66	25.66	*****	*****	*****	22.97	23.42
A. WITI	31.43	36.34	38.82	40.62	36.61	38.11	28.79	32.50	*****	*****	*****	27.97	49.31
L. SHIEL	24.04	24.31	26.00	23.05	28.31	29.97	26.47	23.23	*****	*****	*****	23.08	22.91
M. MILE	26.68	32.23	36.46	35.51	24.36	34.11	32.64	30.02	*****	*****	*****	31.63	35.30
A. WITI	31.98	30.48	36.85	34.37	37.45	36.94	35.11	34.78	*****	*****	*****	33.86	31.33
T. VNGI	23.61	25.04	30.02	31.55	32.46	37.09	20.76	29.61	*****	*****	*****	21.55	21.56
MEAN	27.79	28.88	32.67	32.13	33.42	33.29	30.03	29.48	0.0	0.0	0.0	25.93	31.66
STD. DEV	4.24	4.93	4.40	5.52	3.10	3.21	2.53	3.04	0.0	0.0	0.0	4.90	8.10
N	12.	12.	12.	12.	12.	12.	12.	12.	0.	0.	0.	12.	12.

TABLE V Erythrocyte free amino acid levels (umoles/100 gms) in normal subjects administered ASPARTATE at 13 mg/kg/body weight.

VARIABLE IS_A_MINCB

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
I. VANCE	0.60	0.95	1.11	1.35	1.21	1.40	1.28	1.35	1.33	***	***	1.35	1.66
L. SMITH	0.45	0.41	0.37	0.30	0.31	0.38	0.44	0.57	0.36	***	***	0.56	0.67
M. WILIE	1.23	1.34	1.42	1.54	1.30	0.84	0.78	0.55	0.24	***	***	0.59	0.97
N. WILIE	1.47	1.40	1.27	1.02	1.17	1.25	1.39	1.45	1.36	***	***	1.42	1.34
A. WILIE	1.42	1.52	1.50	1.59	1.37	1.28	1.35	1.32	1.27	***	***	1.31	1.74
C. FINE	0.71	0.71	0.70	0.73	1.10	0.78	0.41	0.35	0.56	***	***	0.47	0.47
J. SIMA	0.11	0.36	0.11	0.48	0.11	0.17	0.09	0.05	0.09	***	***	0.21	0.31
P. MEYER	3.25	2.20	4.13	1.18	3.64	2.52	2.13	3.39	5.44	***	***	2.57	1.73
K. CHASE	1.14	1.35	1.25	0.96	1.14	1.09	1.00	1.12	1.15	***	***	1.27	1.36
C. COATS	1.03	2.41	1.74	2.80	2.29	3.42	4.03	2.15	3.49	***	***	1.23	5.18
S. BOLT	0.83	1.19	1.16	1.04	0.71	0.95	1.02	1.40	0.98	***	***	0.89	1.27
D. SMITH	1.83	1.92	1.52	2.05	1.37	1.68	1.19	1.75	1.23	***	***	1.49	1.74
MEAN	1.26	1.31	1.26	1.25	1.23	1.25	1.26	1.23	1.46	0.0	0.0	1.13	1.54
STD. DEV	0.80	0.65	1.00	0.69	0.91	0.92	1.03	0.87	1.53	0.0	0.0	0.60	1.25
N	12	12	12	12	12	12	12	12	12	0	0	12	12

ASPARTATE, COSE = 13 MG/KG

VARIABLE IS VALINE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
C. SHEL	21.57	20.32	19.58	19.38	16.88	16.87	15.29	17.00	17.33	*****	*****	*****	17.83	23.75
O. BUAZ	17.95	18.87	17.65	17.19	16.46	14.87	17.18	18.42	16.04	*****	*****	*****	19.82	22.13
V. STPA	20.27	16.30	15.81	13.04	14.03	14.37	15.85	12.47	14.38	*****	*****	*****	13.45	13.56
C. M28	17.92	19.43	17.72	16.08	17.95	15.42	17.71	16.59	16.46	*****	*****	*****	17.63	20.07
P. MEYER	20.27	20.93	20.91	19.99	20.50	19.07	15.81	20.12	20.29	*****	*****	*****	18.65	20.12
C. MCRIS	2.21	13.15	12.65	11.55	12.46	11.61	12.09	12.11	12.72	*****	*****	*****	12.90	15.83
K. FOTIE	15.42	15.09	14.11	13.61	11.25	9.33	14.11	9.80	10.43	*****	*****	*****	9.30	8.42
A. WITI	18.75	18.00	16.75	18.72	18.00	15.95	17.15	16.18	16.56	*****	*****	*****	13.53	27.47
M. WITI	14.06	13.30	13.36	10.97	11.49	11.60	12.52	12.90	13.23	*****	*****	*****	14.47	13.87
N. WILLE	18.93	18.64	18.63	18.42	16.84	13.75	13.61	15.73	19.80	*****	*****	*****	14.77	13.04
T. VANGI	14.28	14.84	17.16	16.52	12.80	12.41	12.52	14.00	14.21	*****	*****	*****	10.58	21.54
L. SHIEL	9.78	9.53	9.45	9.16	8.22	8.31	9.52	9.42	8.77	*****	*****	*****	11.09	10.07
MEAN	15.95	16.53	16.36	15.29	14.75	13.67	14.45	14.64	15.05	0.0	0.0	0.0	14.95	17.86
STD. DEV	5.45	3.44	3.37	3.62	3.56	3.06	2.49	3.29	3.47	0.0	0.0	0.0	3.58	5.85
N	12	12	12	12	12	12	12	12	12	0	0	0	12	12

TABLE V Erythrocyte free amino acid levels (umoles/100 gm) in normal subjects administered ASPARTATE at 13 mg/kg/body weight.

VARIABLE IS. CYSTINE

ASPARTATE, COSE = 13 MG/KG

ETHICS IS A

[illegible]

SEARCH STUDY - INDIVIDUAL DATA
REC AMINO ACIDS

TABLE V Erythrocyte free amino acid levels (umoles/100 gms) in normal subjects administered ASPARTATE at 13 mg/kg/body weight.

ASPARTATE, CCSE = 13 MG/KG

VARIABLE IS ISCLELCLN-

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
T. VOGEL	4.25	2.06	2.49	3.04	2.72	2.59	2.02	2.81	2.27				2.01	4.99
M. HILL	3.54	3.77	3.32	2.76	2.52	2.27	2.66	2.68	2.99				2.34	3.15
C. MOSES	2.88	2.82	3.15	2.70	2.78	2.44	2.72	2.58	3.04				2.14	5.27
M. MILLS	3.39	3.40	2.95	2.56	2.25	2.39	2.50	3.17	3.97				4.13	2.39
K. POTT	2.45	2.21	2.06	1.87	1.75	1.49	1.72	2.22	2.72				2.80	2.31
L. SHILL	2.29	2.32	2.30	1.98	1.62	1.60	2.20	2.42	1.90				3.22	2.55
A. HILL	4.43	3.94	4.07	3.87	3.59	2.84	3.26	2.81	3.60				4.93	6.33
P. MEYER	5.31	5.34	5.29	4.33	3.84	4.04	9.03	4.24	3.77				4.31	5.37
C. GARR	3.50	3.63	3.16	2.72	2.88	2.36	2.71	2.67	3.22				3.37	4.59
V. STIVA	6.23	3.27	2.98	1.52	2.66	2.49	2.95	2.28	2.91				3.26	2.82
C. BOLT	3.54	3.79	3.70	3.18	2.96	2.42	3.02	3.45	3.08				4.13	6.48
O. SHILL	3.67	3.98	3.54	3.15	3.35	2.10	2.59	2.24	3.25				2.82	5.94
MEAN	3.79	3.38	3.25	2.81	2.75	2.42	3.12	2.83	3.05	0.0	0.0	0.0	3.52	4.56
STD. DEV	1.14	0.93	0.86	0.80	0.67	0.64	1.91	0.58	0.61	0.0	0.0	0.0	0.72	1.50
N	12	12	12	12	12	12	12	12	12	0	0	0	12	12

RBC AMINO ACIDS

ASPARTATE , DOSE = 13 MG/KG

TABLE - I

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
C. SHIEL	8.38	9.23	7.95	7.71	6.38	6.38	7.00	7.97	8.88	8.88	8.88	8.64	12.98
E. BULL	10.24	10.99	10.45	9.40	9.11	7.56	8.94	8.75	8.70	8.88	8.88	11.31	13.52
K. GRABER	8.18	8.90	7.94	6.73	7.38	6.50	7.21	7.27	8.67	8.88	8.88	9.58	11.06
V. SILVA	10.53	7.95	7.45	5.91	6.53	6.29	7.35	7.35	8.03	8.88	8.88	9.10	7.16
P. NEVER	10.55	11.06	11.23	11.45	8.90	8.37	8.61	8.67	9.33	8.88	8.88	8.82	11.82
A. WHITE	10.57	9.35	5.71	9.63	9.12	7.68	8.53	8.48	9.32	8.88	8.88	11.31	13.53
V. WHITE	9.27	8.33	7.96	7.47	6.55	6.44	7.24	8.25	10.41	8.88	8.88	9.56	9.32
L. SHIEL	6.55	7.07	6.56	5.85	5.22	4.79	6.20	6.88	5.45	8.88	8.88	8.26	6.46
V. WHITE	8.56	9.13	8.04	6.38	5.90	6.33	6.61	7.14	8.88	8.88	8.88	6.12	7.50
K. MURIS	5.84	6.12	5.95	5.28	5.67	5.39	5.70	6.38	6.09	8.88	8.88	5.32	10.56
K. POTTE	6.79	6.52	5.08	5.44	4.64	4.27	4.81	5.34	6.34	8.88	8.88	6.78	6.03
T. VUCCI	9.14	6.68	5.75	7.42	6.76	6.43	6.41	7.81	7.33	8.88	8.88	8.07	10.97
MEAN	8.72	8.49	7.84	7.39	6.89	6.31	7.19	7.57	7.50	8.00	8.00	8.73	10.21
STIC. DEV	1.66	1.65	1.88	1.50	1.50	1.23	1.48	1.31	1.48	0.00	0.00	1.62	2.85
N	12	12	12	12	12	12	12	12	12	0	0	12	12

SEARLE STUDY - INDIVIDUAL DATA
RBC AMINO ACIDS

TABLE V Erythrocyte free amino acid levels (umoles/100 gm) in normal subjects administered ASPARTATE at 13 mg/kg/body weight.

ASPARTATE , DOSE = 13 MG/KG

VARIABLE IS TYROSINE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
K. POTTE	3.03	2.60	2.41	2.32	2.04	1.91	1.91	1.75	2.02	*****	*****	*****	1.86	2.67
C. MORIS	2.43	3.10	2.12	2.84	2.51	2.06	3.04	2.38	2.11	*****	*****	*****	2.06	4.93
T. VUACI	5.57	5.56	5.84	3.69	3.38	3.23	3.22	3.81	3.03	*****	*****	*****	2.82	3.93
M. WITTI	5.11	4.01	4.37	3.84	4.00	3.99	4.66	4.71	4.91	*****	*****	*****	5.37	5.25
A. WITTI	4.80	4.47	4.53	4.48	4.23	3.62	3.92	3.74	4.39	*****	*****	*****	4.34	7.50
P. MEYER	5.72	6.17	4.40	5.06	5.35	5.23	5.87	5.36	4.93	*****	*****	*****	5.10	6.57
M. WILLE	5.10	5.04	4.94	4.64	4.37	3.91	3.01	3.26	5.60	*****	*****	*****	4.33	5.53
L. SHIEL	2.74	2.64	2.57	2.41	2.25	2.17	2.20	2.23	2.29	*****	*****	*****	2.93	2.49
D. BUAZ	4.24	4.55	4.23	3.91	3.87	3.25	3.77	4.11	3.30	*****	*****	*****	4.00	6.02
K. CRABE	3.50	3.81	3.39	2.93	3.09	2.82	2.01	2.66	3.26	*****	*****	*****	2.87	5.16
V. STIVA	3.55	2.40	2.50	1.65	2.01	1.09	2.23	1.01	1.03	*****	*****	*****	2.45	1.54
U. SHIEL	6.70	5.27	4.79	4.93	6.33	4.01	3.92	3.76	5.00	*****	*****	*****	3.76	9.29
MEAN	4.45	4.17	3.59	3.55	3.66	3.16	3.56	3.45	3.56	0.0	0.0	0.0	3.58	5.07
STD. DEV	1.36	1.29	1.43	1.12	1.42	1.07	1.21	1.30	1.34	0.0	0.0	0.0	1.24	2.21
N	12	12	12	12	12	12	12	12	12	0	0	0	12	12

RBC AMINO ACIDS

ASPARTATE , DOSE = 13 MG/KG

VARIABLE IS PHENYLAL

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
D. SHIEL	4.00	2.68	2.65	2.95	3.10	2.56	2.00	2.44	3.93	*****	*****	*****	3.09	5.75
K. CRABE	2.42	2.81	2.56	2.86	2.24	2.23	2.46	2.41	2.80	*****	*****	*****	2.73	3.52
D. BUAZ	2.45	2.84	2.78	2.58	2.24	1.79	2.39	2.56	2.00	*****	*****	*****	3.30	3.91
V. STIVA	4.31	2.94	2.96	2.70	2.27	2.90	2.37	2.42	3.29	*****	*****	*****	2.79	1.55
L. SHIEL	2.93	2.71	2.52	2.02	2.00	1.88	1.97	2.37	2.48	*****	*****	*****	2.95	2.59
P. MEYER	4.70	5.84	6.06	5.13	5.45	5.29	5.82	5.73	5.22	*****	*****	*****	4.80	5.83
M. WILLE	3.99	2.84	2.69	2.62	2.48	2.32	3.59	4.02	4.47	*****	*****	*****	4.20	4.03
A. WITTI	3.49	2.92	3.17	3.29	3.19	2.83	3.01	2.97	2.91	*****	*****	*****	3.14	4.41
K. POTTE	2.39	2.75	2.30	2.41	2.19	1.84	2.05	1.90	2.03	*****	*****	*****	2.20	2.76
T. VUACI	5.65	5.20	4.81	3.41	3.18	3.12	3.20	3.06	3.50	*****	*****	*****	3.68	4.38
M. WITTI	3.79	3.52	3.36	2.88	2.89	2.66	3.21	3.15	3.33	*****	*****	*****	3.52	3.30
C. MORIS	2.47	3.35	2.75	2.82	2.25	2.28	3.48	2.56	2.23	*****	*****	*****	2.04	5.02
MEAN	3.58	3.37	3.21	2.93	2.84	2.64	3.01	3.02	3.19	0.0	0.0	0.0	3.23	3.94
STD. DEV	0.98	1.05	1.11	0.77	0.92	0.94	1.06	1.04	0.95	0.0	0.0	0.0	0.78	1.30
N	12	12	12	12	12	12	12	12	12	0	0	0	12	12

Erythrocyte free amino acid levels (μ moles/100 gm) in normal subjects administered ASPARTATE at 13 mg/kg body weight.

VARIABLE IS-DKNI-THIN-

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
M. WIII	13.85	14.12	17.93	15.91	17.74	18.52	13.74	12.37	18.33	18.33	18.50	18.50	18.50	17.65
C. MORIS	9.71	10.37	11.62	11.06	12.29	11.42	11.89	10.77	9.97	9.97	7.11	7.11	7.11	12.22
A. WIII	11.77	11.54	12.46	12.63	12.58	11.06	12.24	11.36	11.69	11.69	10.53	10.53	10.53	13.88
K. POITE	8.79	8.70	9.57	9.87	10.11	9.91	10.11	11.81	12.11	12.11	10.01	10.01	10.01	12.06
F. VLNCI	11.12	11.42	11.30	12.19	13.51	9.64	10.03	9.31	9.57	9.57	7.05	7.05	7.05	7.13
P. REYER	12.97	13.77	14.56	12.27	14.53	13.63	10.99	12.22	12.13	12.13	10.18	10.18	10.18	11.60
L. SHEL	13.20	13.75	13.56	14.57	14.55	13.34	12.05	11.38	13.22	13.22	12.10	12.10	12.10	11.73
M. STINA	10.93	9.51	9.13	9.36	9.29	8.88	8.33	7.52	7.13	7.13	7.77	7.77	7.77	8.15
V. W. WILLE	9.35	9.56	10.29	10.16	10.26	11.18	9.52	9.54	12.02	12.02	10.13	10.13	10.13	12.04
J. GAZ	15.21	15.57	14.70	11.07	15.02	13.79	15.68	15.60	13.80	13.80	15.13	15.13	15.13	15.56
K. CRABR	12.77	14.68	12.67	12.84	13.67	10.15	14.23	14.40	13.83	13.83	11.32	11.32	11.32	12.66
C. SP-FL	14.32	12.41	15.57	12.84	15.43	12.76	14.68	10.56	13.92	13.92	8.65	8.65	8.65	14.08
MEAN	12.27	12.15	12.51	12.06	13.25	12.02	12.38	11.94	12.31	12.31	10.32	10.32	10.32	12.40
STD. DEV	2.45	2.24	2.59	1.92	2.48	2.62	2.98	2.56	2.77	2.77	0.0	0.0	0.0	2.85
N	12	12	12	12	12	12	12	12	12	12	9	9	9	12

ASPIRINATE, DCSE = 13 MG/KG

VARIABLE IS LYSINE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
D. SHIEL	13.76	11.04	13.90	10.81	13.44	10.82	13.14	10.81	13.65	10.80	10.80	10.80	10.80	15.17
K. CRABR	12.33	14.44	13.14	11.49	13.74	12.33	13.26	13.01	14.93	12.33	12.33	12.33	12.12	13.10
J. VLAUG	11.33	11.26	11.23	8.95	8.02	8.81	5.13	8.57	8.74	8.74	8.74	8.74	7.30	8.63
B. BAZL	11.64	11.58	11.16	10.67	10.96	10.06	11.92	13.07	11.87	11.87	11.87	11.87	12.52	14.53
L. SHILL	8.56	8.64	8.39	8.05	8.87	8.43	5.12	8.91	8.68	8.68	8.68	8.68	10.38	8.94
M. MILE	12.07	11.58	12.61	12.50	12.32	14.75	15.14	16.21	10.82	10.82	10.82	10.82	15.65	16.64
C. MORIS	11.20	12.06	12.85	11.36	13.13	12.40	13.44	12.95	12.98	12.98	12.98	12.98	12.17	19.51
P. MEYER	17.93	19.25	21.56	16.80	19.35	19.91	16.68	21.45	20.47	20.47	20.47	20.47	17.57	13.05
V. STIMA	16.91	12.79	12.04	10.96	11.85	12.57	13.67	12.15	13.29	13.29	13.29	13.29	17.24	13.05
K. FETTE	12.79	12.59	13.15	12.16	13.74	13.31	13.63	13.49	12.94	12.94	12.94	12.94	12.10	13.57
A. WITTH	10.95	10.48	11.26	10.94	10.60	9.88	10.56	10.74	10.44	10.44	10.44	10.44	11.92	16.79
M. WITTH	12.60	12.47	13.54	11.36	12.15	12.12	12.32	12.52	11.94	11.94	11.94	11.94	12.94	12.30
MEAN	12.69	12.35	12.54	11.34	12.35	12.10	12.67	12.83	13.23	0.0	0.0	0.0	12.46	14.24
STC. DEV	2.58	2.59	3.21	2.11	2.87	3.10	2.25	3.42	3.56	0.0	0.0	0.0	2.56	3.39
N.	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	0.0	0.0	0.0	12.00	12.00

TABLE V Erythrocyte free amino acid levels (umoles/100 gm) in normal subjects administered ASPARTATE at 13 mg/kg/body weight.

376Y18VA NIDISTH SI VARIABLE IS HISTIDIN

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
M. WITT	5.55	6.35	6.88	5.61	6.07	6.11	6.47	6.52	6.29	***	***	***	6.43	6.33
V. STIVA	9.92	8.04	7.82	8.26	7.57	8.32	8.74	8.15	8.20	***	***	***	8.31	7.59
A. WITT	7.36	7.36	7.72	7.59	7.48	6.87	7.16	7.15	6.99	***	***	***	7.45	6.63
P. MEYER	8.83	9.11	10.02	8.43	9.53	9.76	7.97	9.89	9.62	***	***	***	8.80	9.72
K. FOTTE	8.03	8.11	8.78	8.02	8.08	9.35	9.14	9.05	8.69	***	***	***	8.66	9.18
C. MORIS	8.30	9.16	8.98	8.34	9.27	9.04	9.29	9.10	8.99	***	***	***	8.93	11.17
R. MULLS	6.95	6.97	7.46	7.51	7.28	10.21	5.83	10.47	11.31	***	***	***	5.91	6.51
T. VLAOI	7.61	7.70	7.98	7.61	6.26	6.00	5.77	6.26	5.19	***	***	***	4.99	5.30
D. ELAZ	6.71	6.80	6.40	6.29	6.22	5.71	6.74	6.97	6.35	***	***	***	6.33	7.15
K. CREPE	5.11	7.04	6.46	5.65	6.58	6.04	7.06	6.62	7.34	***	***	***	6.19	6.31
L. SHIEL	8.04	8.60	8.72	8.60	8.51	7.47	8.06	7.26	8.46	***	***	***	7.40	9.25
L. SHIEL	7.07	7.42	7.06	7.21	7.10	7.08	7.03	6.75	7.60	***	***	***	7.79	6.32
MEAN	7.58	7.72	7.66	7.43	7.60	7.64	7.77	7.76	7.88	C.O	C.O	O.C	7.52	8.07
STG. DEV	1.14	0.90	1.10	1.06	1.27	1.59	1.27	1.57	1.67	O.O	O.O	C.C	1.44	1.81
N	12.	12.	12.	12.	12.	12.	12.	12.	12.	9.	0.	9.	12.	12.

ASPARTATE, CUSE = 13 MG/KG

VARIABLE IS ARGinine

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
W. WILE	2.11	1.82	3.13	2.90	2.89	3.67	3.53	2.54	2.17	*****	*****	*****	2.89	3.61
L. SMIL	0.51	*****	0.30	0.74	0.90	1.10	0.70	1.17	0.63	*****	*****	*****	2.62	0.67
L. SP. EL	1.60	1.31	2.01	1.38	1.79	1.00	1.62	1.85	1.51	*****	*****	*****	2.25	2.56
T. VENG	2.48	2.24	2.92	1.80	1.63	1.63	1.47	1.05	1.01	*****	*****	*****	2.60	3.05
K. CAPER	0.65	0.94	0.74	0.74	0.79	0.93	0.40	0.54	1.99	*****	*****	*****	1.87	0.47
C. MURIS	0.91	1.37	0.62	0.89	0.80	0.90	1.35	0.67	1.00	*****	*****	*****	3.23	4.30
D. BGAZ	1.81	1.09	1.66	1.81	1.80	1.88	2.00	2.06	2.03	*****	*****	*****	4.80	1.50
K. FOTTE	2.20	2.68	2.64	2.03	1.00	1.01	0.92	1.57	1.84	*****	*****	*****	3.10	2.63
P. MEYER	1.50	1.34	1.59	1.87	2.92	3.19	3.54	3.48	2.74	*****	*****	*****	2.33	2.84
A. MITT	1.38	0.89	0.88	0.81	0.78	0.79	0.61	0.78	0.24	*****	*****	*****	1.05	3.32
M. MITT	0.56	2.19	0.57	0.79	0.27	0.26	0.54	0.33	0.46	*****	*****	*****	0.51	0.89
V. STIMA	3.27	2.15	6.68	9.17	6.83	5.25	4.69	3.38	4.40	*****	*****	*****	5.78	3.28
REMN	1.59	1.68	2.05	2.08	1.87	1.79	1.78	1.66	1.03	0.0	0.0	0.0	2.84	2.43
SIC. CEV	0.85	0.60	1.70	2.33	1.77	1.49	1.40	1.11	1.17	0.0	0.0	0.0	1.38	1.25
N	12	11	12	12	12	12	12	12	12	0	0	0	12	12

TABLE VI Plasma amino acid levels (umoles/dl) in lactating women administered LACTOSE at 50 mg/kg body weights.

PLASMA AMINO ACIDS

LACTOSE , DOSE = 50 MG/KG

VARIABLE IS TAURINE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
MS. RH1	2.15	5.56	2.35	2.39	1.98	2.40	2.39	4.35	2.23	*****	*****	*****	*****	*****
MS. DE P	3.73	3.53	3.34	4.11	4.11	3.65	3.42	3.37	3.30	*****	*****	*****	*****	*****
MS. KLP	3.23	2.73	3.57	3.62	3.74	3.44	3.47	3.57	3.50	*****	*****	*****	*****	*****
MS. MEA	5.84	5.58	5.71	5.49	5.90	5.01	5.15	5.09	4.51	*****	*****	*****	*****	*****
MS. BLSH	4.91	4.33	6.13	6.01	5.84	4.75	5.53	5.79	5.50	*****	*****	*****	*****	*****
MS. BLT	7.64	4.40	2.03	1.77	6.10	5.07	2.13	1.58	1.50	*****	*****	*****	*****	*****
MEAN	4.58	4.35	3.85	3.90	4.59	4.05	3.68	3.56	3.42	0.0	0.0	0.0	0.0	0.0
STC. DEV	1.98	1.12	1.71	1.67	1.66	1.07	1.40	1.48	1.46	0.0	0.0	0.0	0.0	0.0
N	6.	6.	6.	6.	6.	6.	6.	6.	6.	0.	0.	0.	0.	0.

Plasma amino acid levels (μ moles/dl) in lactating women administered LACTOSE at 50 mg/kg body weight.

VARIABLE IS ASPARI

[illegible]

LACTOSE, DCSE = 50 MG/KG

VARIABLE IS THREE-

[illegible]

TABEL VI Plasma amino acid levels (μ moles/dl) in lactating women administered LACTOSE at 50 mg/kg body weight.

VARIABLE IS SERINE

[illegible]

PLASMA AMINO ACIDS

ACTCSE, LCSE = 50 NG/KG

WARIABLE IS ASPAAGN

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
MS. DCP	5.40	6.60	6.32	4.52	4.69	4.98	5.31	4.40	3.10					
MS. PHT	9.14	5.58	8.17	6.74	8.94	8.76	7.31	7.03	9.68					
MS. NE4	4.51	5.89	6.44	5.26	4.91	4.31	4.17	4.18	4.05					
MS. BUSH	5.68	4.90	6.11	6.56	6.25	5.71	3.75	4.44	4.40					
MS. BLET	6.17	7.84	8.76	11.65	8.22	7.71	8.99	6.26	4.53					
MS. KUH	4.22	3.80	5.54	4.00	4.85	5.70	3.96	4.80	4.35					
MEAN	5.87	5.02	6.89	6.46	6.21	6.15	5.58	5.13	5.12	0.0	0.0	0.0	0.0	0.0
STD. DEV	1.76	1.38	1.27	2.78	1.85	1.70	2.13	1.22	2.30	0.0	0.0	0.0	0.0	0.0
N	6	6	6	6	6	6	6	6	6	0	0	0	0	0

SERIAL STUDY - INDIVIDUAL DATA

PLASMA AMINO ACIDS

TABLE VI Plasma amino acid levels (umoles/dl) in lactating women administered LACTOSE at 50 mg/kg body weight.

LACTOSE , DOSE = 50 MG/KG

VARIABLE IS GLUTAMIN

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
MS. ALH	23.00	38.30	40.35	32.94	43.85	38.72	45.59	54.70	47.84					
MS. ALET	63.02	62.40	61.91	53.63	61.95	58.37	52.17	56.44	50.57					
MS. BLSP	56.74	63.42	68.54	62.42	64.53	72.25	61.36	74.70	72.62					
MS. MIA	46.50	43.20	51.90	50.40	45.30	42.60	41.60	40.20	32.30					
MS. RPT	60.25	47.83	51.14	49.31	51.23	50.85	50.27	51.25	55.43					
MS. DEP	48.10	44.29	46.16	51.99	52.41	52.57	49.71	49.85	49.10					
MEAN	52.30	49.91	53.33	50.11	53.22	52.62	50.12	54.52	54.69	0.0	0.0	0.0	0.0	0.0
STD. DEV	12.17	10.53	10.31	9.62	8.49	12.02	6.69	11.39	9.18	0.0	0.0	0.0	0.0	0.0
N	6.	6.	6.	6.	6.	6.	6.	6.	6.	0.	0.	0.	0.	0.

PLASMA AMINO ACIDS

LACTOSE , DOSE = 50 MG/KG

VARIABLE IS GLUTAMAT

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
MS. DEP	3.07	2.69	2.37	1.96	1.95	1.69	1.97	3.76	8.66					
MS. WHIT	4.44	4.62	4.21	4.03	4.92	4.91	3.63	3.25	3.42					
MS. MIA	2.80	3.66	4.36	3.58	5.31	4.71	4.94	4.25	2.03					
MS. BLSP	5.92	5.70	4.52	4.62	5.53	5.75	5.53	4.70	4.53					
MS. BLSP	6.66	6.09	8.88	7.53	6.97	7.20	6.52	7.13	3.33					
MS. RLP	3.80	2.20	3.56	2.43	3.32	3.43	2.66	2.35	1.94					
MEAN	4.46	4.16	4.25	4.09	4.67	4.78	4.24	4.25	3.98	0.0	0.0	0.0	0.0	0.0
STD. DEV	1.54	1.58	2.22	1.57	1.77	2.06	1.74	1.64	2.49	0.0	0.0	0.0	0.0	0.0
N	6.	6.	6.	6.	6.	6.	6.	6.	6.	0.	0.	0.	0.	0.

PLANT AND ANIMAL ACIDS

LACTULOSE, CCSE = 50 MG/KG

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	3 HR	24 HR
MS. KUH	15.07	14.66	22.55	18.51	21.94	18.59	16.87	17.84	16.02					
MS. MEA	13.80	14.30	18.10	16.80	17.40	12.90	12.60	12.20	11.40					
MS. BLT	36.00	31.11	40.50	38.39	36.60	37.97	35.27	23.88	30.75					
MS. BUS	25.23	23.67	31.63	29.71	28.87	26.97	24.05	23.28	20.41					
MS. CEP	20.76	27.32	29.55	29.82	31.13	25.73	22.45	23.90	21.13					
MS. HTI	26.35	25.03	33.67	33.95	33.24	36.12	32.86	24.82	29.72					
FEA	23.87	22.68	25.40	27.86	29.63	27.38	25.02	22.65	21.58	0.0	0.0	0.0	0.0	0.0
CEV	8.27	6.84	8.02	8.55	8.15	10.20	8.94	7.28	7.57	0.0	0.0	0.0	0.0	0.0

ACTUOSE , DOSE = 50 MG/KG

[illegible]

SEATTLE STUDY - INDIVIDUAL DATA
PLASMA AMINO ACIDS

TABLE VI Plasma amino acid levels (umoles/dl) in lactating women administered LACTOSE at 50 mg/kg body weight.

LACTOSE DOSE = 50 MG/KG

VARIABLE IS GLYCINE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
MRS. NEA	31.50	30.10	25.50	29.10	28.90	28.30	29.90	28.20	29.50					24 HR
MS. KLM	48.31	39.65	48.53	41.01	50.38	48.94	47.24	52.56	48.92					
MS. BLSH	20.75	16.27	18.50	17.25	17.00	17.47	18.03	20.06	17.40					
MS. BLST	35.00	30.28	33.97	31.76	29.91	33.39	32.23	24.03	30.48					
MS. BLFT	30.00	26.30	45.51	42.75	48.41	48.52	48.11	23.16	54.24					
MS. DE P	47.12	45.33	45.51	43.00	46.31	46.30	46.75	42.85	35.76					
MEAN	36.56	32.00	37.05	34.11	36.58	37.25	37.08	35.99	36.72	0.0	0.0	0.0	0.0	0.0
STD. DEV	10.32	10.03	11.64	10.41	13.67	12.58	12.33	11.34	13.03	0.0	0.0	0.0	0.0	0.0
N	6	6	6	6	6	6	6	6	6	0	0	0	0	0

PLASMA AMINO ACIDS

LACTOSE DOSE = 50 MG/KG

VARIABLE IS ALANINE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
MRS. DE P	39.40	40.40	48.80	51.66	56.13	53.93	50.82	35.71	35.44					24 HR
MS. BLFT	39.85	36.53	45.39	45.13	54.16	51.67	47.72	36.79	39.04					
MS. BLST	42.40	32.36	32.86	38.86	50.49	50.16	35.89	29.67	27.60					
MS. BLSH	47.04	29.97	50.71	44.53	43.52	40.35	26.05	26.80	36.84					
MS. KLM	23.64	21.53	33.30	30.15	35.20	27.33	25.33	27.58	25.34					
MRS. NEA	33.50	29.90	35.30	34.80	32.50	26.10	21.50	24.90	28.80					
MEAN	37.65	32.45	41.06	40.85	45.40	41.54	36.32	31.91	32.29	0.0	0.0	0.0	0.0	0.0
STD. DEV	8.15	7.16	8.15	7.79	9.50	12.37	11.67	5.20	5.77	0.0	0.0	0.0	0.0	0.0
N	6	6	6	6	6	6	6	6	6	0	0	0	0	0

CLASS DIVING ACTS

TABLE VI Plasma amino acid levels (μ moles/dl) in lactating women administered-LACTOSE-at-50-mg/kg-body weight.

LACTOSE, DOSE = 50 MG/KG

variable is: ARJNC

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
M5. BLSP	1.37	1.07	1.32	1.00	1.16	1.20	1.23	1.52	1.43					
M5. NEM	1.69	1.41	1.85	1.41	1.78	1.60	1.64	1.92	1.85					
M5. AET	4.01	3.60	3.59	3.05	3.01	2.93	2.92	3.20	3.13					
M5. BLST	1.40	1.53	2.19	2.27	1.60	2.33	2.03	2.12	2.20					
M5. APT	2.82	2.55	2.63	2.28	2.52	2.45	2.40	2.39	2.75					
M5. SEP	2.01	2.03	2.12	2.01	2.06	1.94	1.37	1.55	1.75					
MEAN	2.23	2.08	2.29	2.00	2.02	2.08	2.01	2.17	2.19	0.0	0.0	0.0	0.0	0.0
STD. DEV.	1.02	0.90	0.77	0.72	0.86	0.63	0.55	0.58	0.66	0.0	0.0	0.0	0.0	0.0
N	6	6	6	6	6	6	6	6	6	0	0	0	0	0

PLASMA AMINO ACIDS

LACTULOSE, DOSE = 50 MG/KG

VALINE IS VALINE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR.	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR
V.S. DE P	20.35	19.47	19.23	17.48	17.54	16.21	15.93	16.04	15.27				
V.S. W-FIT	21.70	20.42	20.76	18.08	19.58	19.05	18.95	18.59	22.04				
M.S. MEA	26.30	25.80	25.80	21.90	20.50	19.90	21.60	21.70	23.40				
B.C.TI	31.91	25.94	23.87	22.99	24.43	24.78	20.14	20.56	20.72				
V.S. KUN	17.99	14.55	17.35	13.97	16.60	15.95	15.92	18.99	18.72				
A.S. BUSH	24.71	20.35	24.07	20.32	20.58	19.71	19.42	22.69	20.86				
MEAN	23.83	21.12	21.93	19.21	19.87	19.27	18.66	19.43	20.12	C.O	C.O	C.O	C.O
SIG. DEV	4.96	4.28	3.12	3.34	2.75	3.21	2.30	2.43	2.79	O.O	O.O	O.O	O.O

SEARLE STUDY - INDIVIDUAL DATA
PLASMA AMINO ACIDS

TABLE VI Plasma amino acid levels (μ moles/dl) in lactating women
administered LACTOSE at 50 mg/kg body weight.

LACTOSE , DOSE = 50 MG/KG

VARIABLE IS CYSTINE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
MS. BLSH	9.54	7.83	9.42	8.49	8.35	8.79	8.05	10.08	8.99					
MS. MEA	11.50	11.00	11.30	10.40	10.40	10.40	10.40	10.30	10.60					
MS. NLP	9.66	7.54	9.25	7.50	9.50	9.56	9.62	9.79	9.04					
MS. RUT	10.27	*****	11.49	11.21	9.34	8.81	10.32	12.09	11.43					
MS. DE P	7.81	7.48	7.34	7.03	7.47	7.13	7.16	7.42	7.32					
MS. WHIT	7.52	8.17	11.12	10.52	11.74	11.31	10.93	7.05	13.17					
MEAN	9.45	8.40	9.59	9.19	9.47	9.33	9.42	9.46	10.07	0.0	0.0	0.0	0.0	0.0
STD. DEV	1.52	1.48	1.62	1.75	1.50	1.45	1.51	1.90	2.09	0.0	0.0	0.0	0.0	0.0
N	6.	5.	6.	6.	6.	6.	6.	6.	6.	0.	0.	0.	0.	0.

PLASMA AMINO ACIDS

LACTOSE , DOSE = 50 MG/KG

VARIABLE IS METHION

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
MS. DE P	1.94	1.71	1.79	1.75	1.88	1.67	1.62	1.40	1.32					
MS. WHIT	4.31	1.97	2.50	2.28	2.15	2.20	2.36	1.93	2.29					
MS. PLET	2.04	2.09	2.65	2.49	3.54	2.16	1.33	2.28	2.07					
MS. NLP	1.61	1.33	1.68	1.31	1.53	1.42	1.45	1.72	1.69					
MS. MEA	2.07	1.65	1.35	1.64	1.47	1.46	1.52	1.54	1.57					
MS. BLSH	1.98	1.62	1.76	1.50	1.46	1.29	1.23	1.37	1.42					
MEAN	2.32	1.83	2.07	1.83	2.01	1.71	1.73	1.71	1.73	0.0	0.0	0.0	0.0	0.0
STD. DEV	0.59	0.47	0.48	0.46	0.80	0.41	0.39	0.25	0.37	0.0	0.0	0.0	0.0	0.0
N	6.	6.	6.	6.	6.	6.	6.	6.	6.	0.	0.	0.	0.	0.

TABLE VI Plasma amino acid levels (μ moles/dl) in lactating women administered LACTOSE at 50 mg/kg body weight.

WARIAELE-15-TYROSINE

PLASMA AMINE ACIDS

VARIABLE IS PHENYLAL-

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
MS. DE P	4.25	4.17	4.10	3.73	3.69	3.61	3.59	3.77	3.50					
MS. WIT	4.53	4.70	5.74	3.34	5.59	5.71	5.59	4.78	6.55					
MS. BUSH	5.14	4.16	4.77	4.09	3.92	3.92	3.71	4.17	4.13					
MS. VEA	5.33	4.78	4.74	4.30	4.46	4.21	4.29	4.42	5.22					
MS. KLE	3.02	3.29	4.06	3.66	3.70	3.65	3.62	4.34	4.25					
MS. SLET	7.04	5.73	6.56	6.05	5.27	4.91	5.43	6.24	6.09					
MEAN	5.04	4.47	4.59	4.23	4.45	4.33	4.38	4.62	4.98	0.0	0.0	0.0	0.0	0.0
STD. DEV	1.13	0.81	0.58	0.95	0.85	0.83	0.93	0.86	1.18	0.0	0.0	0.0	0.0	0.0
N	6	6	6	6	6	6	6	6	6	0	0	0	0	0

SEATTLE STUDY - INDIVIDUAL DATA
 ASPING ACIDS

TABLE VII Erythrocyte amino acid levels (umoles/100gm) in lactating women administered LACTOSE at 50 mg/kg body weight.

LACTOSE , DOSE = 50 MG/KG

VARIABLE IS TAURINE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	5 HR	7 HR	3 HR	24 HR
MS. KLF	7.24	6.84	2.45	6.89	3.39	5.94	13.02	13.53	0.53	0.53	0.53	0.53	0.53	0.53
MS. BLUSH	14.31	5.91	5.21	5.09	12.09	11.32	5.89	7.55	9.55	0.53	0.53	0.53	0.53	0.53
MS. ELET	3.69	3.24	7.01	4.05	6.19	3.12	13.69	3.90	2.41	0.53	0.53	0.53	0.53	0.53
MS. MEA	5.16	1.47	11.23	15.49	5.09	10.25	8.03	3.47	3.32	0.53	0.53	0.53	0.53	0.53
MS. DE P	7.97	3.13	7.00	7.55	6.54	3.61	5.40	2.72	12.27	0.53	0.53	0.53	0.53	0.53
MS. OFI	10.98	11.21	3.70	31.29	8.61	6.50	5.57	8.91	10.05	0.53	0.53	0.53	0.53	0.53
MEAN	8.22	6.13	6.10	11.73	7.55	6.82	8.61	7.68	7.71	0.0	0.0	0.0	0.0	0.0
STD. DEV	3.89	3.48	3.09	10.39	2.73	3.34	3.31	3.71	3.95	0.0	0.0	0.0	0.0	0.0
N	6.	6.	6.	6.	6.	6.	6.	6.	6.	0.	0.	0.	0.	0.

REC AMINO ACIDS

LACTOSE , DOSE = 50 MG/KG

VARIABLE IS ASPARTAT

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	3 HR	24 HR
MS. DE P	18.49	15.90	15.03	14.74	15.09	16.21	17.03	17.83	33.86	0.0	0.0	0.0	0.0	0.0
MS. BLIT	21.25	21.47	21.80	22.08	20.94	21.34	21.68	22.00	20.36	0.0	0.0	0.0	0.0	0.0
MS. MEA	22.71	22.48	22.80	21.94	23.57	24.51	24.53	24.79	24.12	0.0	0.0	0.0	0.0	0.0
MS. ELET	36.60	37.35	36.48	37.07	35.98	37.59	35.87	36.57	38.04	0.0	0.0	0.0	0.0	0.0
MS. BLUSH	7.26	7.09	6.73	7.25	8.22	7.38	7.99	3.83	9.12	0.0	0.0	0.0	0.0	0.0
MS. KLF	4.41	3.97	3.77	4.26	4.53	3.43	4.20	4.10	5.21	0.0	0.0	0.0	0.0	0.0
MEAN	18.47	18.04	17.78	17.90	18.04	18.41	18.55	19.09	21.97	0.0	0.0	0.0	0.0	0.0
STD. DEV	11.62	12.06	11.98	11.92	11.36	12.36	11.54	11.77	13.29	0.0	0.0	0.0	0.0	0.0
N	6.	6.	6.	6.	6.	6.	6.	6.	6.	0.	0.	0.	0.	0.

TABLE VII Erythrocyte amino acid levels (umoles/100gm) in lactating women administered LACTOSE at 50 mg/kg body weight.

LACTOSE, CCSE = 50 MG/KG

VARIABLE IS THREEIN

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
MS. ALB	7.59	8.09	8.25	7.59	7.43	6.83	8.23	8.32	6.76	7.77	7.77	7.77	7.77	7.77
MS. CLEF	14.26	13.14	14.22	13.18	13.50	12.72	11.76	12.73	10.48	11.00	10.00	10.00	10.00	10.00
MS. M24	7.51	6.41	6.88	5.67	5.90	5.73	6.52	6.16	6.33	6.66	6.66	6.66	6.66	6.66
MS. BLSM	14.55	15.65	15.35	15.12	13.05	10.77	10.19	9.05	8.61	8.66	8.66	8.66	8.66	8.66
MS. PFT	11.71	7.83	11.75	11.24	10.21	11.32	10.60	11.11	9.51	10.00	10.00	10.00	10.00	10.00
MS. DE P	9.99	10.44	10.99	11.21	10.61	10.16	9.39	10.81	13.42	14.00	14.00	14.00	14.00	14.00
MS. C2V	10.93	10.25	11.32	10.43	10.19	9.63	9.53	9.36	9.25	9.00	9.00	9.00	9.00	9.00
MS. C2V	3.12	3.36	3.42	4.15	3.04	2.72	1.69	2.29	2.66	0.0	0.0	0.0	0.0	0.0
MS. C2V	6.	6.	6.	6.	6.	6.	5.	6.	5.	0.	0.	0.	0.	0.

AMINO ACIDS

LACTOSE, DCS = 50 MG/KG

AVAILABLE IN SERIALS

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
MS. WEST	16.93	12.91	15.01	15.03	14.02	14.40	13.69	14.33	13.61	13.69	13.69	13.69	13.69	13.69
MS. SEA	15.11	13.84	14.45	12.11	14.57	13.63	15.13	14.02	14.19	13.69	13.69	13.69	13.69	13.69
MS. DEP	17.76	18.28	17.41	17.33	19.25	17.67	16.40	16.32	24.39	13.69	13.69	13.69	13.69	13.69
MS. ACH	13.37	13.72	14.05	13.01	12.77	11.54	14.01	13.95	12.42	13.69	13.69	13.69	13.69	13.69
MS. BUSH	12.53	11.16	12.71	11.77	13.00	9.95	5.35	8.54	8.67	13.69	13.69	13.69	13.69	13.69
MS. FLET	16.65	15.83	16.58	15.71	16.20	15.70	15.05	15.82	14.73	13.69	13.69	13.69	13.69	13.69
WEIN	15.06	14.09	15.03	14.16	14.80	13.32	13.94	14.16	14.66	13.69	13.69	13.69	13.69	13.69
STD. EV	1.96	2.47	1.72	2.21	2.09	2.79	2.44	3.22	5.23	0.0	0.0	0.0	0.0	0.0
N	6	6	6	6	6	6	6	6	6	0	0	0	0	0

SCIENCE

7-21-66

W.A.R.I.E.L.E IS ASPRAGN.

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VARIABLE IS GLUTAMIN

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515. 23A

TABLE VII Erythrocyte amino acid levels (umoles/100gm) in lactating women-administered LACTOSE at 50mg/kg-body weight:-

LACTOSE, CCSE = 50 MG/KG

WHILE IS GLTAMAT

SUBJECT / TIME	0 MIN.	15 MIN.	30 MIN.	45 MIN.	1 HR.	90 MIN.	2 HR.	3 HR.	4 HR.	5 HR.	6 HR.	7 HR.	8 HR.	2 1/2 HR.
M.S. FLSH	23.92	23.04	22.86	22.16	23.98	29.56	26.09		26.36					
M.S. HPIT	33.73	33.55	31.65	34.52	31.60	34.40	34.73		27.81					
M.S. FEA	23.55	23.08	24.43	24.39	22.47	24.12	24.67		23.26					
M.S. SLET	20.74	20.61	21.45	20.46	22.48	22.43	25.17		24.48					
M.S. DE P	29.94	23.10	22.64	23.16	22.22	23.54	24.54		24.00					
M.S. ALT	22.37	27.46	26.16	26.48	27.46	23.67	21.08		20.37					
MEAN	26.72	25.14	24.66	25.19	25.35	26.29	27.71		26.88					0.0
S.D.	4.83	4.68	3.70	5.00	3.59	4.59	4.22		3.87					0.0
N	6	6	6	6	6	6	6		6					0

AMINO ACIDS

1:10 USE 50 MG/KG

WILLIAMS IS PRCLINE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
M.S. CLEY	13.12	16.23	16.67	16.79	17.42	17.93	17.57	15.12	15.26	*****	*****	*****	*****	*****
V.P.S. MEA	6.94	7.67	8.55	8.86	8.33	9.36	9.19	9.17	8.95	*****	*****	*****	*****	*****
V.S. ALP	7.13	7.27	10.55	10.90	10.41	3.10	9.73	9.35	8.25	*****	*****	*****	*****	*****
M.S. APTI	11.37	13.76	14.40	15.14	16.30	16.21	16.21	14.34	13.87	*****	*****	*****	*****	*****
M.S. ELSH	14.13	14.14	14.78	14.53	14.89	14.95	15.48	13.16	14.64	*****	*****	*****	*****	*****
M.S. DE P	16.28	13.79	14.85	16.18	15.80	16.05	14.87	14.70	21.81	*****	*****	*****	*****	*****
M.E.M.	12.09	12.18	12.30	13.73	13.89	13.78	13.84	12.48	13.90	0.0	0.0	0.0	0.0	0.0
STD. CEV	4.35	3.70	3.08	3.15	3.44	4.02	3.52	2.55	4.93	0.0	0.0	0.0	0.0	0.0
N	6.	6.	6.	6.	6.	6.	6.	6.	6.	0.	0.	0.	0.	0.

TABLE VII Erythrocyte amino acid levels (umoles/100gm) in lactating women administered LACTOSE at 50mg/kg body weight.

women administered LACTOSE at 50mg/kg body weight.

EXAMPLE IS GLYCINE.

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	50 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
MS. CE P	56.51	51.95	55.30	54.77	56.51	55.10	47.23	54.67	67.00					24 HR
MS. HPI	48.07	49.65	48.65	49.83	47.02	50.27	52.53	48.73	55.21					24 HR
MS. NEA	36.92	37.25	36.69	40.98	34.65	32.30	34.60	32.50	33.00					24 HR
MS. BLT	37.03	37.43	36.67	36.82	37.90	36.32	37.73	37.52	35.51					24 HR
MS. PLSH	32.41	34.04	33.66	32.27	35.25	34.56	33.75	32.08	30.52					24 HR
MS. KPH	53.73	55.53	57.18	65.32	61.04	60.53	60.49	58.55	54.74					24 HR
MS. N	44.60	46.15	44.72	46.63	45.60	45.00	47.75	44.08	46.11	0.0	0.0	0.0	0.0	0.0
STD. DEV	10.06	11.57	10.29	12.38	11.42	11.93	14.34	11.63	15.12	0.0	0.0	0.0	0.0	0.0
W	6.	6.	6.	6.	6.	6.	6.	6.	6.	0.	0.	0.	0.	0.

ASC
AMINO ACIDS

LACTOSE, DGE = 50 MG/KG

VARIABLE IS ALANINE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
VS. KLP	18.79	23.04	22.01	23.35	30.56	24.41	23.14	20.85	23.03					
VS. UET	26.04	24.76	26.29	27.76	30.02	30.92	31.14	29.32	30.21					
VS. PLSF	33.87	33.06	32.64	31.56	32.39	31.46	27.19	32.39	39.77					
VS. WHIT		29.93	31.80	34.59	30.02	30.67	36.19	33.98	34.01					
VS. DE P	33.70	29.14	35.67	39.15	40.57	40.80	40.13	35.72	46.00					
VS. MEA	16.85	17.20	17.89	18.56	23.53	21.56	22.53	20.93	21.62					
MEAN	26.53	26.19	27.72	29.23	31.28	30.97	31.73	28.45	32.59	0.0	0.0	0.0	0.0	0.0
STD. DEV	7.36	5.70	6.46	7.55	5.48	7.22	7.48	6.48	9.34	0.0	0.0	0.0	0.0	0.0
N.	6	6	6	6	6	6	6	6	6	0	0	0	0	0

STABLE STUDY - INDIVIDUAL DATA
RBC AMINO ACIDS

TABLE VII Erythrocyte amino acid levels (umoles/100gm) in lactating women administered LACTOSE at 50mg/kg body weight.

LACTOSE , DOSE = 50 MG/KG

VARIABLE IS A_MINCB

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
MS. DE P	2.52	0.55	2.97	2.03	1.47	1.68	2.06	3.21	0.97	1.53				
MS. NEA														
MS. ALP														
MS. ALH														
MS. BLT	5.62	2.29	3.62	2.32	2.45	3.13	4.43	3.01	2.34					
MS. BLST														
MEAN	3.27	1.42	3.22	2.18	1.56	2.40	3.27	3.11	1.75	0.0	0.0	0.0	0.0	0.0
STD. DEV	0.42	1.23	0.50	0.21	0.65	1.03	1.71	0.14	0.70	0.0	0.0	0.0	0.0	0.0
N	2.	2.	2.	2.	2.	2.	2.	2.	3.	0.	0.	0.	0.	0.

RBC AMINO ACIDS

LACTOSE , DOSE = 50 MG/KG

VARIABLE IS VALINE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
MS. BLT	16.17	16.11	16.16	15.54	15.22	13.92	12.65	14.04	13.08					
MS. ALP	13.56	11.50	12.70	12.90	11.26	12.25	11.55	12.32	12.52					
MS. BLST	26.92	24.01	23.63	22.63	14.56	18.98	19.73	18.16	13.64					
MS. DE P	18.10	13.03	20.74	12.15	12.20	11.24	10.63	14.80	11.84					
MS. NEA	13.09	13.77	14.88	12.38	12.47	9.98	10.20	10.84	10.76					
MS. ALP	14.54	13.57	12.80	12.66	12.72	11.57	11.62	11.79	12.00					
MEAN	16.03	15.33	16.82	14.80	13.07	12.99	12.74	13.66	12.31	0.0	0.0	0.0	0.0	0.0
STD. DEV	5.01	4.50	4.45	4.01	1.51	3.21	3.53	2.55	1.01	0.0	0.0	0.0	0.0	0.0
N	6.	6.	6.	6.	6.	6.	6.	6.	6.	0.	0.	0.	0.	0.

TABLE VII Erythrocyte amino acid levels (umoles/100gm) in lactating women administered LACTOSE at 50mg/kg body weight.

VALIABLE IS ISCLECN

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	3 HR	24 HR
MS. BLUSH	5.83	5.00	4.49	3.85	4.10	3.43	3.19	3.06	3.70					2.3
MS. CE P	3.49	4.20	4.18	2.62	1.91	1.63	1.71	2.00	5.23					2.3
MS. WHIT	4.20	3.00	4.02	2.30	2.03	1.74	2.07	3.53	3.22					2.3
MS. RCH	2.17	2.17	2.21	1.96	1.84	0.37	1.11	2.51	2.68					2.3
MS. RCH	4.77	5.07	4.21	5.50	4.24	2.99	4.27	4.32	4.24					2.3
MS. RCH	3.39	4.38	2.94	2.61	2.17	1.34	2.11	2.91	2.30					2.3
MEAN	3.98	4.22	3.70	3.02	2.84	2.13	2.47	2.99	3.62	0.0	0.0	0.0	0.0	0.0
STD. DEV	1.28	1.17	0.90	1.40	1.33	0.93	1.13	0.84	1.01	0.0	0.0	0.0	0.0	0.0
"	5	5	5	5	5	5	5	5	5	0	0	0	0	0

DATE = 50 14/KG

ENVIRONMENTAL SCIENCE

[illegible]

TABLE VII Erythrocyte amino acid levels (umoles/100gm) in lactating women administered LACTOSE at 50 mg/kg body weight.

VARIABLE IS TYROSINE.

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
MS - RPT	5.01	4.35	4.55	4.71	4.52	4.55	4.43	4.53	4.38	4.44	4.44	4.44	4.44	4.44
MS - RLSF	5.29	5.33	5.15	4.61	4.56	4.01	3.75	3.27	3.43	3.44	3.44	3.44	3.44	3.44
MS - KLP	4.33	2.77	2.59	2.80	2.50	3.19	3.48	4.51	4.09	4.44	4.44	4.44	4.44	4.44
MS - QSP	6.72	5.53	2.85	3.35	3.67	3.28	2.36	3.01	4.70	4.44	4.44	4.44	4.44	4.44
MS - DCT	3.63	6.30	6.07	5.65	5.32	4.58	4.45	4.05	3.77	4.44	4.44	4.44	4.44	4.44
MS - MEA	3.36	3.31	3.30	2.95	2.41	2.42	2.69	2.32	2.67	4.44	4.44	4.44	4.44	4.44
MEAN	5.33	4.63	4.22	4.06	3.94	3.67	3.53	2.61	3.84	3.0	3.0	3.0	3.0	3.0
STD. DEV.	1.34	1.37	1.29	1.21	1.10	0.86	0.37	0.89	0.73	0.0	0.0	0.0	0.0	0.0

LACTOSE, CUSE = 50 MG/KG

AVAILABLE IN PHENYLAL-

[illegible]

TABLE STUDY - INDIVIDUAL DATA
ASAC ACIDS

TABLE VII Erythrocyte amino acid levels (umoles/100gm) in lactating women administered LACTULOSE at 50 mg/kg body weight.

VARIABLE IS CREATININ

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	3 HR	24 HR
MS. BLT	13.23	13.04	14.75	14.62	15.24	12.22	12.45	11.33	10.93	10.71	10.93	10.93	10.93
MS. BLT	12.79	12.46	12.58	14.37	15.75	13.53	13.70	15.56	13.01	13.01	13.01	13.01	13.01
MS. DE P	13.30	14.60	15.30	15.79	15.75	15.15	13.70	15.56	13.01	13.01	13.01	13.01	13.01
MS. DE P	9.27	9.59	9.29	5.81	10.40	8.93	9.55	7.83	7.83	7.83	7.83	7.83	7.83
MS. ALP	12.76	13.60	14.45	14.15	14.44	14.09	12.14	12.14	12.14	12.14	12.14	12.14	12.14
MS. ALP	10.34	9.60	9.84	9.93	9.32	11.49	9.83	9.27	9.27	9.27	9.27	9.27	9.27
MEAN	11.55	12.15	12.71	12.65	13.35	12.14	12.39	11.71	10.84	0.0	0.0	0.0	0.0
STD. DEV	1.71	2.10	2.61	4.14	2.53	2.55	1.92	2.23	1.95	0.0	0.0	0.0	0.0
N	6	6	6	5	6	6	6	6	6	0	0	0	0

ROC AMINO ACIDS

LACTULOSE , DOSE = 50 MG/KG

VARIABLE IS LYSINE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	3 HR	24 HR
MS. BLT	13.00	12.43	12.18	12.61	12.44	13.53	13.25	13.07	13.07	13.07	13.07	13.07	13.07
MS. BLT	11.38	9.69	7.68	6.32	12.98	13.00	12.23	12.37	12.37	12.37	12.37	12.37	12.37
MS. DE P	14.33	11.55	11.70	11.67	11.61	10.61	10.78	11.04	11.04	11.04	11.04	11.04	11.04
MS. DE P	15.57	15.41	7.42	11.63	10.07	5.23	5.01	3.52	3.52	3.52	3.52	3.52	3.52
MS. ALP	15.77	14.80	15.56	13.25	13.10	14.94	17.10	13.50	13.50	13.50	13.50	13.50	13.50
MS. BLT	17.04	15.38	16.11	16.00	15.68	15.39	14.25	14.29	14.29	14.29	14.29	14.29	14.29
MEAN	14.76	12.21	11.77	11.97	12.65	12.79	12.60	12.20	0.0	0.0	0.0	0.0	0.0
STD. DEV	2.05	2.56	3.72	3.56	1.86	2.43	3.10	2.14	0.0	0.0	0.0	0.0	0.0
N	6	6	6	5	6	6	6	6	0	0	0	0	0

NEW AMINO ACIDS

$$LACYCSE = 50 \text{ MG/KG}$$

SUBJECT / TIME

SECRET

LACTOSE , DOSE = 50 MG/KG

SUBJECT / TIME

WISCONSIN

TABLE VIII Breast milk amino acid levels (μ moles/dl) in lactating women administered lactose at 50 mg/kg body weight.

MILK AMINO ACIDS													
LACTOSE + DOSE = 50 MG/KG													
PYRIDOLE IS TAURINE													
SUBJECT	TIME	0 HR	1 HR	2 HR	3 HR	4 HR	8 HR	12 HR	24 HR				
MS. DE P		49.70	51.50	45.80	49.20	37.50	59.13	55.10	47.70	0.0	0.0	0.0	0.0
MS. RPT		19.73	28.06	22.15	21.28	21.22	26.33	22.93	22.21	0.0	0.0	0.0	0.0
MS. GLEY		50.85	46.00	41.11	40.60	28.09	28.27	26.95	37.50	0.0	0.0	0.0	0.0
MS. RCP		32.58	26.52	26.22	24.45	24.46	25.46	22.04	19.45	0.0	0.0	0.0	0.0
MS. BLSH		30.79	22.94	22.70	27.85	24.40	26.28	24.72	24.75	0.0	0.0	0.0	0.0
MS. PEA		42.77	33.97	31.75	41.07	42.96	47.43	54.82	40.77	0.0	0.0	0.0	0.0
MEAN		37.74	34.83	35.20	34.17	29.77	35.34	36.03	31.51				
STD. DEV		12.17	11.49	16.47	10.56	8.56	14.44	15.57	10.63				
N		6.	6.	6.	6.	6.	6.	6.	6.				

LACTATION STUDIES - INDIVIDUAL DATA
FILK AMINO ACIDS

MILK AMINO ACIDS

LACTOSE • DOSE = 50 MG/KG												
VARIABLE IS ASPARAGIN												
SUBJECT / TIME		0 HR	1 HR	2 HR	3 HR	4 HR	8 HR	12 HR	24 HR			
1	DE P	0.10	2.05	0.22	0.65	1.87	1.73	1.92	0.80	0.0	0.0	0.0
2	WIT	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.0	0.0
3	PST	1.55	*****	*****	*****	*****	*****	*****	*****	0.0	0.0	0.0
4	ALA	*****	*****	*****	*****	1.35	3.71	5.56	6.25	0.0	0.0	0.0
5	SUCH	*****	1.49	2.22	1.62	0.29	*****	1.19	1.91	0.0	0.0	0.0
6	PEA	*****	*****	*****	*****	2.86	1.53	*****	0.46	0.0	0.0	0.0
7	DE V	0.84	1.77	0.85	1.13	1.59	2.32	3.02	2.13			
8	LEV	1.05	0.40	1.15	0.69	1.07	1.21	2.57	2.76			
9	N	2.0	2.0	3.0	2.0	4.0	3.0	3.0	4.0			

TABLE VIII Breast milk amino acid levels (umoles/dl) in lactating women administered lactose at 50 mg/kg body weight.

LACTATION STUDIES - INDIVIDUAL DATA
MILK AMINO ACIDS

LACTOSE DOSE = 50 MG/KG

VARIABLE IS ALANINE

SUBJECT / TIME	0 HR	1 HR	2 HR	3 HR	4 HR	8 HR	12 HR	24 HR					
MRS. BEA	3.45	2.57	2.84	2.54	1.77	2.01	0.73	1.96	0.0	0.0	0.0	0.0	0.0
MS. BLSH	*****	*****	0.22	*****	0.28	*****	0.15	*****	0.0	0.0	0.0	0.0	0.0
MS. KLF	1.63	1.53	1.79	1.61	1.74	1.53	1.25	1.17	0.0	0.0	0.0	0.0	0.0
MS. BLST	1.79	1.68	1.86	1.58	1.21	1.49	1.65	1.38	0.0	0.0	0.0	0.0	0.0
MS. BLST	1.29	1.49	1.22	1.48	1.59	1.58	1.56	1.74	0.0	0.0	0.0	0.0	0.0
MS. DE P	1.27	0.58	1.08	0.76	0.58	0.73	2.12	1.19	0.0	0.0	0.0	0.0	0.0
MEAN	1.89	1.57	1.50	1.67	1.19	1.47	1.24	1.49					
STD. DEV	0.90	0.71	0.83	0.66	0.63	0.46	0.71	0.35					
N	5.	5.	6.	5.	6.	5.	6.	5.					

MILK AMINO ACIDS

LACTOSE DOSE = 50 MG/KG

VARIABLE IS VALINE

SUBJECT / TIME	0 HR	1 HR	2 HR	3 HR	4 HR	8 HR	12 HR	24 HR					
MS. DE P	4.12	2.39	3.63	2.73	2.35	2.45	3.80	5.08	0.0	0.0	0.0	0.0	0.0
MS. WHIT	4.30	3.90	3.58	3.68	3.32	4.59	5.09	6.00	0.0	0.0	0.0	0.0	0.0
MS. KLF	4.72	5.26	5.31	4.88	4.60	3.84	3.28	3.95	0.0	0.0	0.0	0.0	0.0
MS. BLSH	2.53	3.90	5.02	7.80	5.15	3.11	2.65	5.25	0.0	0.0	0.0	0.0	0.0
MRS. BEA	3.70	3.71	3.87	3.83	3.18	3.90	2.82	4.41	0.0	0.0	0.0	0.0	0.0
MS. BLST	4.60	3.58	3.95	4.88	3.20	3.12	3.63	3.57	0.0	0.0	0.0	0.0	0.0
MEAN	3.99	3.87	4.23	4.63	3.72	3.50	3.54	4.72					
STD. DEV	0.80	0.94	0.75	1.75	1.03	0.76	0.88	0.91					
N	6.	6.	6.	6.	6.	6.	6.	6.					

TABLE VIII Breast milk amino acid levels (umoles/dl) in lactat women administered lactose at 50 mg/kg body weight.

LACTATION STUDIES - INDIVIDUAL DATA
MILK AMINO ACIDS

LACTOSE DOSE = 50 MG/KG

VARIABLE IS CYSTINE

SUBJECT / TIME	0 HR	1 HR	2 HR	3 HR	4 HR	8 HR	12 HR	24 HR	
MS. BLEY	3.53	3.35	3.16	3.38	3.13	2.79	4.09	3.11	0.0
MRS. MEA	3.84	3.99	4.12	4.40	4.02	3.86	2.54	3.23	0.0
MS. BLST	1.21	1.34	1.46	1.05	1.35	2.16	1.96	1.50	0.0
MS. KLH	3.49	3.39	3.76	3.71	2.72	3.61	2.23	2.60	0.0
MS. WFIT	4.60	5.51	5.41	5.35	5.06	5.73	3.85	5.22	0.0
MS. DE F	6.22	5.19	6.71	4.86	4.26	5.16	3.45	3.34	0.0
MEAN	3.81	3.79	4.10	3.80	3.42	3.88	3.02	3.17	
STD. DEV	1.64	1.50	1.82	1.52	1.21	1.34	0.85	1.21	
N	6.	6.	6.	6.	6.	6.	6.	6.	

MILK AMINO ACIDS

LACTOSE DOSE = 50 MG/KG

VARIABLE IS METHION

SUBJECT / TIME	0 HR	1 HR	2 HR	3 HR	4 HR	8 HR	12 HR	24 HR	
MS. DE P	0.35	0.31	0.41	0.42	0.41	0.11	0.21	0.20	0.0
MS. WFIT	0.40	0.37	0.35	0.25	0.30	0.59	1.00	0.85	0.0
MS. KLH	0.30	0.47	0.44	0.38	0.36	0.36	0.36	0.64	0.0
MS. BLST	0.20	0.61	0.85	1.75	1.03	0.41	0.31	0.91	0.0
MRS. MEA	0.52	0.43	0.44	0.58	0.66	0.41	0.12	0.91	0.0
MS. BLEY	0.40	0.27	0.27	0.58	0.66	0.41	0.12	0.91	0.0
MEAN	0.37	0.41	0.47	0.68	0.55	0.37	0.40	0.58	
STD. DEV	0.11	0.12	0.21	0.63	0.30	0.20	0.35	0.32	
N	6.	6.	6.	5.	5.	4.	5.	5.	

TABLE VIII

Breast milk amino acid levels (μ moles/dl) in lactating women administered lactose at 50 mg/kg body weight.LACTATION STUDIES - INDIVIDUAL DATA
MILK AMINO ACIDS

LACTOSE DOSE = 50 MG/KG

VARIABLE IS ISOLEUCINE

SUBJECT / TIME	0 HR	1 HR	2 HR	3 HR	4 HR	8 HR	12 HR	24 HR					
MS. BLT	0.76	0.52	0.24	0.33	0.53	0.53	0.73	0.77	0.0	0.0	0.0	0.0	0.0
MS. MEA	1.06	0.62	0.49	0.50	0.61	0.72	0.50	0.75	0.0	0.0	0.0	0.0	0.0
MS. BLT	0.52	1.36	2.46	5.60	3.33	1.26	0.88	2.16	0.0	0.0	0.0	0.0	0.0
MS. KLF	0.37	1.07	0.76	0.54	0.44	0.51	0.67	1.00	0.0	0.0	0.0	0.0	0.0
MS. WIT	1.26	1.12	1.07	0.74	0.75	1.43	1.72	1.28	0.0	0.0	0.0	0.0	0.0
MS. DE P	0.66	0.38	0.35	0.25	0.27	0.50	1.66	1.15	0.0	0.0	0.0	0.0	0.0
MEAN	0.77	0.89	0.89	1.33	0.99	0.84	1.03	1.18					
STD. DEV	0.33	0.48	0.82	2.10	1.16	0.40	0.52	0.52					
N	6.	6.	6.	6.	6.	6.	6.	6.					

MILK AMINO ACIDS

LACTOSE DOSE = 50 MG/KG

VARIABLE IS LEUCINE

SUBJECT / TIME	0 HR	1 HR	2 HR	3 HR	4 HR	8 HR	12 HR	24 HR					
MS. DE F	2.29	1.22	1.61	1.17	1.29	20.40	2.77	2.43	0.0	0.0	0.0	0.0	0.0
MS. WIT	3.16	2.90	2.73	2.52	2.72	3.94	4.65	4.02	0.0	0.0	0.0	0.0	0.0
MS. KLF	1.98	3.75	2.67	2.20	2.26	2.17	2.33	3.88	0.0	0.0	0.0	0.0	0.0
MS. BLT	1.53	3.63	6.82	17.44	10.10	3.00	2.04	5.72	0.0	0.0	0.0	0.0	0.0
MS. MEA	3.05	2.23	2.11	2.22	2.05	2.46	1.97	2.60	0.0	0.0	0.0	0.0	0.0
MS. BLT	2.67	2.09	1.85	2.34	2.60	2.37	2.82	2.58	0.0	0.0	0.0	0.0	0.0
MEAN	2.45	2.64	2.56	4.65	3.50	5.72	2.76	3.54					
STD. DEV	0.63	0.98	1.54	6.28	3.27	7.22	0.99	1.28					
N	6.	6.	6.	6.	6.	6.	6.	6.					

LACTATION STUDIES - INDIVIDUAL DATA
MILK AMINO ACIDS

TABLE VIII Breast milk amino acid levels (umoles/dl) in lactating women administered lactose at 50 mg/kg body weight

LACTOSE , DOSE = 50 MG/KG

VARIABLE IS TYROSINE

SUBJECT / TIME	0 HR	1 HR	2 HR	3 HR	4 HR	8 HR	12 HR	24 HR	0.0	0.0	0.0	0.0	0.0	0.0
MS. BUET	0.73	0.51	0.28	0.28	0.17	0.14	0.23	0.53	0.0	0.0	0.0	0.0	0.0	0.0
MRS. MEA	0.60	0.38	0.35	0.45	0.50	0.71	0.49	0.59	0.0	0.0	0.0	0.0	0.0	0.0
MS. BLSP	0.64	1.14	1.57	2.87	1.28	1.06	0.92	1.85	0.0	0.0	0.0	0.0	0.0	0.0
MS. KLF	0.81	1.05	1.07	0.55	0.77	0.67	0.68	0.71	0.0	0.0	0.0	0.0	0.0	0.0
MS. WFIT	1.16	0.93	1.14	0.83	0.86	1.86	2.53	2.21	0.0	0.0	0.0	0.0	0.0	0.0
MS. DE P	1.11	0.63	0.82	0.77	0.66	0.58	1.21	1.44	0.0	0.0	0.0	0.0	0.0	0.0
MEAN	0.84	0.78	0.87	1.02	0.71	0.84	1.16	1.22						
STD. DEV	0.24	0.32	0.49	0.94	0.37	0.58	0.88	0.72						
N	6.	6.	6.	6.	6.	6.	6.	6.						

MILK AMINO ACIDS

LACTOSE , DOSE = 50 MG/KG

VARIABLE IS PHENYLAL

SUBJECT / TIME	0 HR	1 HR	2 HR	3 HR	4 HR	8 HR	12 HR	24 HR	0.0	0.0	0.0	0.0	0.0	0.0
MS. DE P	0.68	0.46	0.46	0.29	0.56	0.71	1.36	1.11	0.0	0.0	0.0	0.0	0.0	0.0
MS. WFIT	1.17	0.81	1.02	0.77	0.73	1.42	1.91	1.15	0.0	0.0	0.0	0.0	0.0	0.0
MS. KLF	0.69	1.60	0.84	0.67	0.74	0.59	0.63	0.92	0.0	0.0	0.0	0.0	0.0	0.0
MS. BLSP	0.22	0.77	1.39	5.16	1.94	0.45	0.32	0.63	0.0	0.0	0.0	0.0	0.0	0.0
MRS. MEA	0.98	0.70	0.66	0.60	0.48	0.75	0.56	0.56	0.0	0.0	0.0	0.0	0.0	0.0
MS. BLEY	1.09	1.00	0.84	0.92	0.95	0.57	0.80	0.82	0.0	0.0	0.0	0.0	0.0	0.0
MEAN	0.80	0.89	0.87	1.40	0.90	0.81	0.93	0.86						
STD. DEV	0.35	0.39	0.32	1.85	0.53	0.34	0.59	0.24						
N	6.	6.	6.	6.	6.	6.	6.	6.						

SEARLE STUDY - INDIVIDUAL DATA
PLASMA AMINO ACIDS

TABLE IX Plasma amino acid levels (umoles/dl) in lactating women
administered ASPARTAME at 50 mg/kg body weight.

ASPARTAME , DOSE = 50 MG/KG

VARIABLE IS LAURINE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
MS. WFIT	3.54	3.03	3.54	3.60	3.32	2.36	3.45	3.63	3.47	3.47	3.47	3.47	3.47	3.47
MS. DE P	3.68	3.65	4.20	3.86	3.75	3.45	3.24	3.23	2.98	2.98	2.98	2.98	2.98	2.98
MS. BLSH	5.53	5.53	5.59	5.40	4.93	5.74	5.94	4.90	5.14	5.14	5.14	5.14	5.14	5.14
MS. BLCT	4.95	4.90	5.60	3.39	4.84	4.61	4.01	4.61	4.63	4.63	4.63	4.63	4.63	4.63
MS. MEA	5.24	4.23	5.25	4.76	4.82	4.72	4.72	4.34	4.35	4.35	4.35	4.35	4.35	4.35
MS. KLN	3.32	3.32	3.70	3.50	3.35	3.00	4.07	3.51	3.95	3.95	3.95	3.95	3.95	3.95
MEAN	4.38	3.96	4.57	4.03	4.13	3.93	4.24	4.04	4.09	4.09	4.09	4.09	4.09	4.09
STD. DEV	0.97	0.81	1.05	0.81	0.75	1.53	0.98	0.67	0.79	0.79	0.79	0.79	0.79	0.79
N	6	4	6	6	6	4	6	6	6	6	6	6	6	6

PLASMA AMINO ACIDS

ASPARTAME , DOSE = 50 MG/KG

VARIABLE IS ASPART

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
MS. KUP	0.11	0.27	0.23	0.19	0.18	0.17	0.11	0.12	0.11	0.11	0.11	0.11	0.11	0.11
MS. MEA	0.71	0.27	0.36	0.30	0.28	0.33	0.42	0.18	0.25	0.25	0.25	0.25	0.25	0.25
MS. BLSH	0.33	0.33	0.53	0.36	0.65	0.33	0.45	0.15	0.17	0.17	0.17	0.17	0.17	0.17
MS. BLCT	0.92	0.58	1.64	0.32	0.52	0.51	0.24	0.25	0.45	0.45	0.45	0.45	0.45	0.45
MS. DE P	0.21	0.59	0.30	0.57	0.26	0.42	0.42	0.21	0.19	0.19	0.19	0.19	0.19	0.19
MS. WFIT	0.22	0.17	0.21	0.15	0.18	0.16	0.15	0.12	0.22	0.22	0.22	0.22	0.22	0.22
MEAN	0.42	0.42	0.54	0.31	0.34	0.30	0.30	0.17	0.23	0.23	0.23	0.23	0.23	0.23
STD. DEV	0.33	0.24	0.55	0.15	0.19	0.17	0.15	0.05	0.12	0.12	0.12	0.12	0.12	0.12
N	6	4	6	6	6	4	6	6	6	6	6	6	6	6

SEARLE STUDY - INDIVIDUAL DATA
PLASMA AMINO ACIDS

TABLE IX Plasma amino acid levels (umoles/dl) in lactating women administered ASPARTAME at 50mg/kg-body weight.

ASPARTAME , DOSE = 50 MG/KG

VARIABLE IS THREON

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
MS. KUT	13.32	13.18	13.86	14.31	15.25	13.32	15.12	13.18	12.19	12.19	12.19	12.19	12.19	24 HR
MS. BLU	12.23	12.09	12.80	11.68	12.15	10.61	9.51	9.95	10.00	10.00	10.00	10.00	10.00	24 HR
MS. DE P	10.08	11.07	11.62	11.31	10.38	*****	9.40	8.18	8.02	8.02	8.02	8.02	8.02	24 HR
MS. MEA	9.15	8.01	8.69	7.52	7.07	7.97	7.53	7.40	7.32	7.32	7.32	7.32	7.32	24 HR
MS. BLU	9.21	*****	9.21	8.05	7.26	7.97	7.63	7.86	6.83	6.83	6.83	6.83	6.83	24 HR
MS. ALP	8.52	*****	10.03	9.56	9.76	8.81	8.86	8.32	7.78	7.78	7.78	7.78	7.78	24 HR
MEAN	10.42	11.08	11.20	10.40	10.33	10.18	9.68	9.15	9.74	9.74	9.74	9.74	9.74	9.74
STD. DEV	1.92	2.22	2.26	2.54	3.13	2.37	2.80	2.16	1.99	1.99	1.99	1.99	1.99	1.99
N	6	4	6	6	6	4	6	6	6	6	6	6	6	6

PLASMA AMINO ACIDS

ASPARTAME , DOSE = 50 MG/KG

VARIABLE IS SERINE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
MS. KUT	13.92	*****	18.31	17.26	17.32	15.32	16.50	15.30	13.90	13.90	13.90	13.90	13.90	24 HR
MS. BLU	8.68	*****	9.53	8.01	8.87	8.39	9.06	10.00	7.87	7.87	7.87	7.87	7.87	24 HR
MS. MEA	14.40	11.40	13.30	11.40	11.20	*****	11.80	12.00	11.80	11.80	11.80	11.80	11.80	24 HR
MS. BLU	16.66	15.03	18.85	14.55	15.50	13.31	12.01	12.01	13.52	13.52	13.52	13.52	13.52	24 HR
MS. DE P	15.58	13.41	18.34	18.90	16.60	*****	16.03	14.33	14.32	14.32	14.32	14.32	14.32	24 HR
MS. ALP	14.49	14.53	15.23	15.00	15.15	15.51	16.61	15.25	14.68	14.68	14.68	14.68	14.68	24 HR
MEAN	13.99	14.85	15.59	14.19	14.11	13.13	13.68	12.23	12.66	12.66	12.66	12.66	12.66	12.66
STD. DEV	2.69	2.87	3.68	3.96	3.33	3.31	3.17	2.10	2.55	2.55	2.55	2.55	2.55	2.55
N	6	4	6	6	6	4	6	6	6	6	6	6	6	6

SEARCH STUDY - INDIVIDUAL DATA
PLASMA AMINO ACIDS

TABLE IX Plasma amino acid levels (umoles/dl) in lactating women
administered ASPARTAME at 50mg/kg/body weight,

ASPARTAME • DOSE = 50 MG/KG

VARIABLE IS ASPARAGN

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	3 HR	24 HR
MS. RPT	6.31	5.49	4.71	5.19	5.81	6.53	4.81	4.17	5.90	5.90	5.90	5.90	5.90	5.90
MS. NLA	3.41	3.40	2.99	2.60	2.32	3.03	3.03	2.11	3.39	3.39	3.39	3.39	3.39	3.39
MS. BLT	4.24	8.94	5.08	11.51	8.19	7.73	6.93	8.62	7.78	7.78	7.78	7.78	7.78	7.78
MS. DE P	3.62	4.23	4.29	4.67	3.30	4.20	4.20	2.57	3.59	3.59	3.59	3.59	3.59	3.59
MS. BLCH	2.25	4.23	6.47	4.27	3.71	3.62	3.57	2.08	4.86	4.86	4.86	4.86	4.86	4.86
MS. KUP	2.36	4.23	3.30	6.66	8.01	5.22	3.69	6.90	8.73	8.73	8.73	8.73	8.73	8.73
MEAN	3.83	5.51	5.47	5.82	5.31	5.77	4.39	4.56	5.71	5.71	5.71	5.71	5.71	5.71
STD. DEV	1.35	2.44	2.36	3.09	2.39	1.76	1.40	2.60	2.19	2.19	2.19	2.19	2.19	2.19
N	6	4	6	6	6	4	6	6	6	6	6	6	6	6

PLASMA AMINO ACIDS

ASPARTAME • DOSE = 50 MG/KG

VARIABLE IS GLUTAMIN

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	3 HR	24 HR
MS. RPT	59.92	64.80	62.50	59.16	63.37	60.11	67.50	61.59	63.50	63.50	63.50	63.50	63.50	63.50
MS. BLCH	64.80	64.80	62.50	49.60	59.60	59.60	62.40	61.70	60.10	60.10	60.10	60.10	60.10	60.10
MS. NLA	53.70	43.80	52.00	44.50	40.90	41.90	41.90	47.70	45.60	45.60	45.60	45.60	45.60	45.60
MS. BLT	63.57	62.15	60.17	66.02	61.75	61.55	61.11	60.14	61.25	61.25	61.25	61.25	61.25	61.25
MS. DE P	45.51	44.23	44.55	40.17	44.21	45.11	45.27	47.68	45.82	45.82	45.82	45.82	45.82	45.82
MS. KUP	60.75	59.40	63.13	65.56	64.23	64.23	52.30	58.40	57.69	57.69	57.69	57.69	57.69	57.69
MEAN	58.12	53.64	58.42	54.17	55.67	56.59	55.65	56.27	55.66	55.66	55.66	55.66	55.66	55.66
STD. DEV	7.31	8.52	8.61	11.00	10.33	7.70	10.39	6.77	7.93	7.93	7.93	7.93	7.93	7.93
N	6	4	6	6	6	4	6	6	6	6	6	6	6	6

SEATTLE STUDY - INDIVIDUAL DATA
PLASMA AMINO ACIDS

TABLE IX Plasma amino acid levels (umoles/dl) in lactating women administered ASPARTAME at 50mg/kg body weight.

ASPARTAME • DOSE = 50 MG/KG

VARIABLE IS GLUTAMAT

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
MS. WIT	1.74	1.84	3.61	3.17	3.56	3.24	4.23	2.60	2.27	*****	*****	*****	*****	*****
MS. BLUSH	4.60	*****	7.82	9.10	8.31	8.85	7.25	4.03	4.43	*****	*****	*****	*****	*****
MS. DE P	1.41	1.63	2.35	2.32	2.40	*****	2.35	2.58	2.18	*****	*****	*****	*****	*****
MS. BLUET	7.00	5.30	2.00	5.19	5.92	6.52	6.21	5.64	5.37	*****	*****	*****	*****	*****
MS. MEA	2.22	1.50	3.33	3.80	3.92	4.44	3.39	2.02	1.50	*****	*****	*****	*****	*****
MS. KUH	2.13	*****	2.31	4.20	3.02	2.16	1.95	2.05	2.00	*****	*****	*****	*****	*****
MEAN	3.20	2.57	4.66	4.63	4.52	5.24	4.22	3.16	3.06	0.0	0.0	0.0	0.0	0.0
STD. DEV	2.17	1.83	2.60	2.39	2.21	3.00	2.12	1.43	1.72	0.0	0.0	0.0	0.0	0.0
N	6	4	6	6	6	4	6	6	6	0	0	0	0	0

PLASMA AMINO ACIDS

ASPARTAME • DOSE = 50 MG/KG

VARIABLE IS PROLINE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
MS. BLUET	26.71	28.64	33.69	32.50	32.20	34.51	21.61	23.99	25.00	*****	*****	*****	*****	*****
MS. WIT	22.25	21.93	21.40	27.50	26.40	27.75	27.81	25.25	19.89	*****	*****	*****	*****	*****
MS. BLUSH	14.40	*****	17.80	19.20	17.60	22.20	17.90	15.50	12.90	*****	*****	*****	*****	*****
MS. MEA	11.30	12.20	16.30	14.70	14.80	*****	12.20	12.70	11.40	*****	*****	*****	*****	*****
MS. DE P	22.43	25.60	30.90	29.50	29.40	*****	28.27	23.20	21.30	*****	*****	*****	*****	*****
MS. KUH	14.80	*****	21.70	26.20	25.05	21.47	19.50	16.30	15.07	*****	*****	*****	*****	*****
MEAN	18.65	22.34	23.64	24.93	24.24	26.48	23.05	19.51	17.59	0.0	0.0	0.0	0.0	0.0
STD. DEV	5.59	7.32	7.07	6.69	6.76	6.04	7.20	5.30	5.30	0.0	0.0	0.0	0.0	0.0
N	6	4	6	6	6	4	6	6	6	0	0	0	0	0

SEARLE STUDY - INDIVIDUAL DATA

PLASMA AMINO ACIDS

TABLE IX Plasma amino acid levels (μ moles/dl) in lactating women administered ASPARTAME at 50 mg/kg body weight.

ASPARTAME, DOSE = 50 MG/KG

VARIABLE IS-CITRULLIN

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
MS. KUH	2.12	0.44	0.53	0.47	0.36	1.29	1.82	2.50	2.26	0.77	0.77	0.77	0.77	0.77
MS. DE P	0.76	0.44	0.53	0.47	0.36	1.29	1.82	2.50	2.26	0.77	0.77	0.77	0.77	0.77
MS. DE P	2.51	1.61	1.51	1.21	1.07	1.42	1.42	1.86	1.70	0.90	0.90	0.90	0.90	0.90
MS. BLSH	1.37	0.95	0.50	0.43	0.20	0.41	0.31	1.25	0.90	0.90	0.90	0.90	0.90	0.90
MS. BLST	3.55	2.70	2.20	2.02	2.30	1.34	2.13	2.73	3.13	2.52	2.52	2.52	2.52	2.52
MS. WPT	2.82	2.70	2.13	1.87	1.95	1.53	1.57	2.47	2.52	2.52	2.52	2.52	2.52	2.52
MEAN	2.25	2.17	1.67	1.23	1.22	1.29	1.39	1.88	1.88	0.0	0.0	0.0	0.0	0.0
STD. DEV	1.12	1.50	0.55	0.67	0.84	0.65	0.64	0.50	0.93	0.0	0.0	0.0	0.0	0.0
N	5	4	6	6	6	4	6	6	6	0	0	0	0	0

PLASMA AMINO ACIDS

ASPARTAME, DOSE = 50 MG/KG

VARIABLE IS-GLYCINE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
MS. MEA	30.80	25.50	26.80	23.30	23.50	27.60	27.60	33.40	23.90	23.90	23.90	23.90	23.90	23.90
MS. BLSH	16.70	16.70	16.80	14.80	15.30	15.20	15.50	17.80	15.40	15.40	15.40	15.40	15.40	15.40
MS. BLST	29.40	29.18	29.17	28.22	27.44	29.95	29.29	29.06	25.44	25.44	25.44	25.44	25.44	25.44
MS. WPT	44.59	44.46	53.81	47.23	51.40	45.34	48.40	46.34	40.41	40.41	40.41	40.41	40.41	40.41
MS. KUH	51.03	51.03	52.70	50.90	56.30	60.40	51.60	50.40	45.00	45.00	45.00	45.00	45.00	45.00
MS. DE P	52.40	47.60	47.30	52.60	50.50	47.05	47.05	43.90	42.50	42.50	42.50	42.50	42.50	42.50
MEAN	37.51	36.68	37.75	36.26	37.42	37.72	36.57	36.15	32.77	0.0	0.0	0.0	0.0	0.0
STD. DEV	14.15	10.97	15.52	16.02	17.37	19.49	14.51	12.52	13.04	0.0	0.0	0.0	0.0	0.0
N	6	4	6	6	6	4	6	6	6	0	0	0	0	0

TABLE IX Plasma amino acid levels (μ moles/dl) in lactating women administered ASPARTAME at 50 mg/kg body weight.

ALANINE IS ALANINE

PLASMA AMINO ACIDS

WHILE IS A_MIND

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
MS. BLEI	2.47	2.67	3.71	2.47	2.91	2.47	2.34	2.45	2.56					
MS. KLP	1.24	***	1.32	1.45	1.51	1.23	1.37	1.50	1.47					
MS. BLSH	1.50	***	1.72	1.58	1.38	1.67	1.61	1.62	1.55					
MS. PFI	2.66	2.71	3.33	2.92	3.00	2.81	2.64	2.53	2.40					
MS. PEA	2.91	2.72	3.10	2.72	2.55	***	2.31	2.21	2.46					
MS. UEP	3.98	4.32	4.74	4.32	4.22	***	3.82	3.50	3.54					
MEAN	2.47	3.10	2.99	2.58	2.60	2.64	2.35	2.31	2.33	0.0	0.0	0.0	0.0	0.0
STC. DEV	0.59	0.81	1.27	1.04	1.05	0.72	0.87	0.73	0.76	0.0	0.0	0.0	0.0	0.0
N	6	4	6	6	6	4	6	6	6	0	0	0	0	0

SEARLF STUDY - INDIVIDUAL DATA
PLASMA AMINO ACIDS

TABLE IX Plasma amino acid levels (umoles/dl) in lactating women
administered ASPARTAME at 50 mg/kg body weight.

ASPARTAME , DOSE = 50 MG/KG

VARIABLE IS VALINE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
MS. DE P	24.65	25.53	26.73	23.85	22.95	19.37	19.37	19.20	19.30	19.30	19.30	19.30	19.30	19.30
MS. MEA	27.60	23.60	25.10	21.50	20.70	20.30	20.30	19.50	22.60	22.60	22.60	22.60	22.60	22.60
MS. WFT	19.10	18.86	21.78	19.12	18.12	17.50	16.33	16.81	17.30	17.30	17.30	17.30	17.30	17.30
MS. RUSH	19.80	19.80	22.10	20.20	18.10	20.20	18.80	18.10	17.10	17.10	17.10	17.10	17.10	17.10
MS. BLCT	25.70	25.43	26.50	20.14	22.45	17.93	17.66	19.01	21.01	21.01	21.01	21.01	21.01	21.01
MS. KUH	15.54	15.54	16.14	15.60	15.17	13.40	15.20	16.10	16.08	16.08	16.08	16.08	16.08	16.08
MEAN	22.07	23.35	23.06	20.07	19.59	17.26	17.94	18.12	18.89	0.0	0.0	0.0	0.0	0.0
STD. DEV	4.63	3.13	4.00	2.73	3.00	2.83	1.93	1.39	2.54	0.0	0.0	0.0	0.0	0.0
N	6	6	6	6	6	4	6	6	6	0	0	0	0	0

PLASMA AMINO ACIDS

ASPARTAME , DOSE = 50 MG/KG

VARIABLE IS CYSTINE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
MS. KUH	8.90	9.12	9.19	9.86	9.62	7.89	9.41	9.25	8.79	8.79	8.79	8.79	8.79	8.79
MS. BLCT	9.50	9.12	9.57	9.38	9.02	10.58	10.36	8.71	8.99	8.99	8.99	8.99	8.99	8.99
MS. RUSH	9.12	8.99	8.99	8.67	8.31	9.13	9.99	8.63	7.69	7.69	7.69	7.69	7.69	7.69
MS. MEA	11.10	9.51	10.10	9.53	9.57	9.57	9.84	9.00	9.32	9.32	9.32	9.32	9.32	9.32
MS. WFT	10.14	10.39	11.01	11.56	11.61	11.43	11.81	10.28	10.21	10.21	10.21	10.21	10.21	10.21
MS. DE P	6.50	7.07	7.77	6.72	6.59	6.59	6.65	6.25	6.30	6.30	6.30	6.30	6.30	6.30
MEAN	9.22	9.02	9.47	9.29	9.12	9.76	9.51	8.79	8.55	0.0	0.0	0.0	0.0	0.0
STD. DEV	1.25	1.41	1.12	1.58	1.66	1.57	1.71	1.49	1.37	0.0	0.0	0.0	0.0	0.0
N	6	6	6	6	6	4	6	6	6	0	0	0	0	0

SEARLE STUDY - INDIVIDUAL DATA
PLASMA AMINO ACIDS

TABLE IX Plasma amino acid levels (umoles/dl) in lactating women
administered ASPARTAME at 50 mg/kg body weight.

ASPARTAME • DOSE = 50 MG/KG

VARIABLE IS METRION

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
MS. WHIT	2.29	2.26	2.13	1.27	2.24	2.07	2.09	2.08	1.67	1.39	1.32	1.37	1.69	1.29
MS. DE P	2.31	2.63	2.74	2.17	2.28	1.31	1.56	1.56	1.39	1.32	1.37	1.69	1.29	1.29
MS. BLSH	1.59	1.29	1.72	1.51	1.23	1.31	1.12	1.26	1.37	1.32	1.37	1.69	1.29	1.29
MS. BLA	1.78	1.29	1.45	1.16	1.01	1.04	0.95	1.26	1.37	1.32	1.37	1.69	1.29	1.29
MS. BLT	1.90	2.11	3.68	1.75	1.88	1.64	1.61	1.77	1.69	1.32	1.37	1.69	1.29	1.29
MS. BLF	1.75	1.75	1.75	1.76	1.77	1.43	1.62	1.54	1.29	1.32	1.37	1.69	1.29	1.29
MEAN	1.94	2.07	2.26	1.70	1.74	1.62	1.49	1.63	1.47	1.32	1.37	1.69	1.29	1.29
STD. DEV	0.30	0.57	0.82	0.34	0.51	0.33	0.40	0.27	0.16	0.16	0.16	0.16	0.16	0.16
N	6	4	6	6	6	4	6	6	6	6	6	6	6	6

PLASMA AMINO ACIDS

ASPARTAME • DOSE = 50 MG/KG

VARIABLE IS ISOLEUCN

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
MS. KLF	2.81	4.63	3.02	2.60	2.39	2.12	2.35	3.15	3.39	4.37	5.29	4.47	3.87	3.93
MS. BLA	5.74	7.08	8.21	5.25	5.23	5.11	5.00	5.21	5.29	5.29	5.29	5.29	5.29	5.29
MS. BLT	5.95	5.93	5.93	5.18	4.74	4.74	4.74	4.09	4.47	4.47	4.47	4.47	4.47	4.47
MS. DE P	4.23	3.93	4.23	3.71	3.15	3.18	3.10	3.96	3.87	3.87	3.87	3.87	3.87	3.87
MS. BLF	4.96	5.93	5.13	4.26	3.40	3.52	3.28	3.53	3.93	3.93	3.93	3.93	3.93	3.93
MEAN	5.12	5.39	5.19	4.16	3.63	3.48	3.28	3.89	4.22	4.22	4.22	4.22	4.22	4.22
STD. DEV	1.47	1.40	1.77	0.99	1.11	1.24	0.92	0.74	0.65	0.65	0.65	0.65	0.65	0.65
N	6	4	6	6	6	4	6	6	6	6	6	6	6	6

SEARLE STUDY - INDIVIDUAL DATA
PLASMA AMINO ACIDS

TABLE IX--Plasma amino acid levels (umoles/dl) in lactating women administered ASPARTAME at 50 mg/kg body weight.

ASPARTAME , DOSE = 50 MG/KG

VARIABLE IS LEUCINE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
MS. BUEI	13.60	13.46	13.71	10.47	9.34	9.11	8.75	5.01	10.34	***	***	***	***	***
MS. WHI	10.77	10.38	11.63	10.21	9.28	8.63	8.76	9.86	9.42	***	***	***	***	***
MS. DE P	12.56	12.70	12.94	11.21	10.41	***	7.22	8.58	9.32	***	***	***	***	***
MS. WLSH	13.50	***	11.30	9.72	7.89	8.43	8.06	8.85	9.49	***	***	***	***	***
MS. RLF	13.70	11.40	11.73	9.01	7.34	***	8.31	9.00	11.70	***	***	***	***	***
MS. RLF	7.22	***	7.37	6.40	5.96	5.12	5.74	7.08	7.81	***	***	***	***	***
MEAN	11.39	11.98	11.44	9.50	8.54	7.81	7.91	8.73	9.68	0.0	0.0	0.0	0.0	0.0
STD. DEV	2.46	1.37	2.20	1.69	1.63	1.32	1.16	0.92	1.28	0.0	0.0	0.0	0.0	0.0
N	6.	4.	6.	6.	6.	4.	6.	6.	6.	0.	0.	0.	0.	0.

PLASMA AMINO ACIDS

ASPARTAME , DOSE = 50 MG/KG

VARIABLE IS TYROSINE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
MS. WEA	4.29	3.58	3.97	7.25	4.88	***	5.02	4.71	5.09	***	***	***	***	***
MS. KLF	3.15	***	3.71	6.58	6.45	3.77	6.70	4.53	4.29	***	***	***	***	***
MS. WLSH	5.47	***	7.32	7.15	6.79	7.69	7.33	8.08	4.00	***	***	***	***	***
MS. DE P	4.07	6.90	6.05	7.93	8.06	***	7.88	7.85	5.83	***	***	***	***	***
MS. WHI	7.28	7.22	11.88	10.43	9.17	10.13	10.65	9.06	8.09	***	***	***	***	***
MS. BUEI	6.70	7.46	8.98	9.40	8.90	10.19	9.43	8.51	7.38	***	***	***	***	***
MEAN	5.16	6.39	7.98	8.12	7.37	7.94	7.93	7.13	5.78	0.0	0.0	0.0	0.0	0.0
STD. DEV	1.61	1.62	2.64	1.49	1.64	3.02	2.90	1.99	1.66	0.0	0.0	0.0	0.0	0.0
N	6.	4.	6.	6.	6.	4.	6.	6.	6.	0.	0.	0.	0.	0.

SEARLE STUDY - INDIVIDUAL DATA
PLASMA AMINO ACIDS

TABLE IX Plasma amino acid levels (umoles/dl) in lactating women
administered ASPARTAME at 50 mg/kg body weight.

ASPARTAME, DOSE = 50 MG/KG

VARIABLE IS PHENYLAL

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
MS. APIT	5.23	6.12	12.56	11.32	10.18	11.57	12.33	8.64	6.81	*****	*****	*****	*****	*****
MS. BLET	6.13	11.68	13.95	22.80	17.58	21.39	16.77	11.47	9.53	*****	*****	*****	*****	*****
MS. BLSP	6.75	*****	23.50	20.60	18.40	20.50	16.90	8.01	7.05	*****	*****	*****	*****	*****
MS. DE P	2.32	9.45	12.35	13.41	14.33	*****	11.87	5.15	4.80	*****	*****	*****	*****	*****
MS. MEA	3.55	6.12	12.40	11.50	8.33	*****	6.71	5.21	4.82	*****	*****	*****	*****	*****
MS. KUH	3.22	*****	11.79	17.00	16.20	9.19	12.10	5.35	5.04	*****	*****	*****	*****	*****
MEAN	4.61	8.34	14.49	16.21	14.17	15.66	12.77	8.07	6.42	0.0	0.0	0.0	0.0	0.0
STD. DEV	1.72	2.72	4.47	4.86	4.08	6.15	3.78	2.28	2.02	0.0	0.0	0.0	0.0	0.0
N	6	4	6	6	6	4	6	6	6	0	0	0	0	0

PLASMA AMINO ACIDS

ASPARTAME, DOSE = 50 MG/KG

VARIABLE IS ORNITHIN

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
MS. MEA	8.43	7.26	8.10	7.23	7.15	*****	6.81	6.65	6.40	*****	*****	*****	*****	*****
MS. KUH	6.03	*****	7.58	6.93	6.00	6.57	6.52	7.30	5.03	*****	*****	*****	*****	*****
MS. BLSP	5.99	*****	6.70	6.12	5.33	6.40	5.55	5.72	4.10	*****	*****	*****	*****	*****
MS. DE P	5.81	6.42	6.22	7.22	6.05	*****	4.55	5.21	5.21	*****	*****	*****	*****	*****
MS. BLET	9.19	9.18	8.98	7.80	7.90	8.05	7.83	7.25	7.78	*****	*****	*****	*****	*****
MS. APIT	6.58	6.40	7.66	6.73	11.77	7.50	6.78	6.94	5.72	*****	*****	*****	*****	*****
MEAN	7.07	7.21	7.54	7.00	7.55	7.13	6.35	6.54	5.86	0.0	0.0	0.0	0.0	0.0
STD. DEV	1.43	1.21	0.59	0.50	2.20	0.78	1.15	0.84	1.15	0.0	0.0	0.0	0.0	0.0
N	6	4	6	6	6	4	6	6	6	0	0	0	0	0

SEATTLE STUDY - INDIVIDUAL DATA
PLASMA AMINO ACIDS

TABLE IX Plasma amino acid levels (μ moles/dl) in lactating women administered ASPARTAME at 50 mg/kg body weight.

ASPARTAME , DOSE = 50 MG/KG

VARIABLE IS LYSINE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
MS. BLSH	15.10	22.82	23.00	13.50	12.00	13.90	12.90	12.90	11.60	11.60	11.60	11.60	11.60	11.60
MS. BLIT	23.12	22.82	23.00	20.16	20.17	19.35	21.65	19.52	19.42	19.42	19.42	19.42	19.42	19.42
MS. BLIT	14.56	16.21	12.11	11.86	13.82	12.40	11.99	12.55	14.36	14.36	14.36	14.36	14.36	14.36
MS. DE P	14.50	15.20	16.40	15.00	14.25	14.25	12.46	12.20	12.13	12.13	12.13	12.13	12.13	12.13
MS. KLA	10.57	11.43	12.11	11.43	11.32	11.10	11.20	11.80	10.74	10.74	10.74	10.74	10.74	10.74
MS. MEA	13.20	17.20	17.30	14.70	13.90	15.30	15.30	14.13	16.60	16.60	16.60	16.60	16.60	16.60
MEAN	16.02	17.06	16.02	14.45	14.24	14.19	14.25	12.91	14.15	14.15	14.15	14.15	14.15	14.15
STD. DEV	4.24	3.41	4.06	3.15	3.13	3.63	3.88	2.86	3.34	3.34	3.34	3.34	3.34	3.34
N	6	4	6	6	6	4	6	6	6	6	6	6	6	6

PLASMA AMINO ACIDS

ASPARTAME , DOSE = 50 MG/KG

VARIABLE IS HISTIDIN

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
MS. KUI	5.94	5.94	7.06	6.59	6.43	6.47	6.54	6.76	6.31	6.31	6.31	6.31	6.31	6.31
MS. MEA	6.55	5.94	6.50	5.59	5.27	5.27	5.21	5.51	5.37	5.37	5.37	5.37	5.37	5.37
MS. DE P	7.27	7.94	8.61	7.82	7.40	7.40	6.40	6.36	6.42	6.42	6.42	6.42	6.42	6.42
MS. BLSH	6.06	5.94	5.43	5.05	4.45	5.29	4.82	5.30	4.65	4.65	4.65	4.65	4.65	4.65
MS. KLA	8.75	8.50	9.08	8.64	9.11	8.89	9.58	8.34	8.11	8.11	8.11	8.11	8.11	8.11
MS. BLIT	7.22	7.00	6.95	6.48	7.10	7.73	6.84	6.57	7.04	7.04	7.04	7.04	7.04	7.04
MEAN	6.56	7.51	7.29	6.76	6.63	7.09	6.58	6.54	6.32	6.32	6.32	6.32	6.32	6.32
STD. DEV	1.04	1.13	1.35	1.34	1.65	1.56	1.71	1.10	1.22	1.22	1.22	1.22	1.22	1.22
N	6	4	6	6	6	4	6	6	6	6	6	6	6	6

TABLE IX Plasma amino acid levels (umoles/dl) in lactating women administered ASPARTAME at 50 mg/kg body weight.

SEARLE STUDY - INDIVIDUAL DATA													
PLASMA AMINO ACIDS													
ASPARTAME , DOSE = 50 MG/KG													
VARIABLE IS ARGININ													
SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	50 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	24 HR
MS. BLEY	9.17	11.55	11.68	9.95	12.10	11.29	9.61	8.57	8.95	*****	*****	*****	24 HR
MRS. MEA	8.44	9.20	10.20	8.63	7.99	*****	7.52	7.01	7.70	*****	*****	*****	*****
MS. ELSH	6.91	*****	7.21	6.77	5.67	6.14	5.59	5.35	4.77	*****	*****	*****	*****
MS. DE P	7.51	8.90	9.39	9.23	8.33	*****	6.64	6.41	6.38	*****	*****	*****	*****
MS. HPII	10.80	10.90	12.65	11.54	12.34	11.76	12.31	10.11	9.72	*****	*****	*****	*****
MS. KLH	6.09	*****	11.51	11.78	11.32	9.17	9.55	8.61	7.61	*****	*****	*****	*****
MEAN	8.22	10.16	10.44	9.65	9.57	9.59	8.62	7.74	7.52	0.0	0.0	0.0	0.0
STD. DEV	1.50	1.33	1.96	1.38	2.64	2.56	2.50	1.78	1.78	0.0	0.0	0.0	0.0
N	6.	4.	6.	6.	6.	4.	6.	6.	5.	0.	0.	0.	0.

TABLE X Erythrocyte amino acid levels (μ moles/100gm) in lactating women administered ASPARTAME at 50-mg/kg/body weight.

WARRIEL IS TALKING

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR
MS. BUSH	4.10	4.10	4.91	11.40	14.50	20.60	11.10	9.26	7.52	***	***	***	***
MS. KCH	3.13	3.13	10.30	9.52	14.20	8.16	2.37	2.80	3.55	***	***	***	***
MS. WPII	5.32	17.65	25.39	12.56	9.07	10.77	26.54	12.21	11.19	***	***	***	***
MS. DE P	2.27	12.14	9.26	4.64	3.13	***	3.76	4.03	3.21	***	***	***	***
MS. BLT	5.35	5.31	7.67	3.05	5.28	9.31	7.44	11.00	9.33	***	***	***	***
MS. MEA	10.23	8.21	13.59	11.79	14.20	***	12.30	25.40	13.40	***	***	***	***
MEAN	5.19	10.98	12.79	8.74	9.74	13.71	10.67	10.50	8.05	6.0	0.0	0.0	0.0
STD. DEV.	2.84	5.14	7.70	3.96	5.46	5.97	5.76	8.08	4.08	0.0	0.0	0.0	0.0
N	6	4	6	6	6	4	6	6	6	6	6	6	6

ASPARTAME, DOSE = 50 MG/KG

INVESTIGATION

SUBJECT / TIME	0 MIN	15 MIN	20 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
MS. BUSH	10.50	***	10.30	9.26	9.10	9.35	8.19	8.37	8.48	***	***	***	***	24 HR
MS. K-11	39.32	34.87	34.51	34.07	31.38	34.70	34.20	34.57	34.23	***	***	***	***	***
MS. BUEI	50.40	51.84	48.98	51.10	49.00	52.50	50.80	50.40	54.91	***	***	***	***	***
MS. NEA	22.30	21.88	21.93	22.19	20.77	***	20.20	20.40	21.90	***	***	***	***	***
MS. KLF	3.75	***	4.18	3.90	3.33	4.72	3.39	3.55	4.84	***	***	***	***	***
MS. DE P	17.36	18.66	16.51	16.50	16.35	***	16.19	17.59	18.03	***	***	***	***	***
MEAT	22.97	31.11	22.89	22.34	21.65	25.32	22.33	22.62	23.71	0.0	0.0	0.0	0.0	0.0
SIG. DEV	17.71	15.23	16.92	17.37	16.52	22.41	17.46	17.27	19.48	0.0	0.0	0.0	0.0	0.0
N	8.00	4.00	6.00	6.00	6.00	4.00	6.00	6.00	6.00	0.00	0.00	0.00	0.00	0.00

SEATTLE STUDY - INDIVIDUAL DATA
RBC AMINO ACIDS

TABLE X Erythrocyte amino acid levels (umoles/100 gm) in lactating women administered ASPARTAME at 50 mg/kg/body weight.

ASPARTAME , DOSE = 50 MG/KG

VARIABLE IS THREONINE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
MS. DE P	8.59	8.75	8.12	9.38	8.58	5.92	1.70	6.43	*****	*****	*****	*****	*****
MS. KLF	5.06	*****	7.05	11.40	7.77	6.94	6.92	6.55	*****	*****	*****	*****	*****
MS. WPT	15.01	13.31	13.85	13.92	12.67	13.85	13.21	11.61	*****	*****	*****	*****	*****
MS. BLCT	8.63	9.85	8.60	9.87	10.30	10.30	6.32	8.77	*****	*****	*****	*****	*****
MS. MEA	6.19	0.94	8.42	7.74	5.96	7.71	7.45	7.02	*****	*****	*****	*****	*****
MS. BLSH	4.89	*****	4.69	5.55	4.37	5.25	5.24	4.01	*****	*****	*****	*****	*****
MEAN	8.06	9.71	8.49	9.64	8.37	5.34	7.83	7.47	7.39	0.0	0.0	0.0	0.0
STD. DEV	3.78	2.03	3.02	2.89	2.83	3.79	2.97	2.92	2.57	0.0	0.0	0.0	0.0
N	6	4	6	6	6	4	6	6	6	0	0	0	0

RBC AMINO ACIDS

ASPARTAME , DOSE = 50 MG/KG

VARIABLE IS SERINE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
MS. BLCT	13.70	14.70	13.20	14.00	14.30	12.70	11.50	12.70	*****	*****	*****	*****	*****
MS. BLSH	8.11	*****	8.37	7.51	6.91	8.06	8.25	7.82	*****	*****	*****	*****	*****
MS. KLF	13.20	*****	14.60	17.80	14.30	16.10	14.90	14.70	*****	*****	*****	*****	*****
MS. MEA	12.81	13.16	15.09	14.18	12.88	14.20	13.40	14.10	*****	*****	*****	*****	*****
MS. DE P	19.48	19.18	17.70	17.05	18.28	15.71	15.89	16.61	*****	*****	*****	*****	*****
MS. WPT	20.56	19.24	19.14	19.64	17.46	18.87	18.14	18.39	*****	*****	*****	*****	*****
MEAN	14.71	16.57	14.70	15.03	14.19	14.12	13.94	13.68	14.05	0.0	0.0	0.0	0.0
STD. DEV	4.73	3.11	3.17	4.27	4.07	4.58	3.57	3.48	3.65	0.0	0.0	0.0	0.0
N	6	4	6	6	6	4	6	6	6	0	0	0	0

SEARLE STUDY - INDIVIDUAL DATA
ASC

TABLE X Erythrocyte amino acid levels (umoles/100 gm) in lactating women administered ASPARTAME at 50 mg/kg/body weight.

ASPARTAME , DOSE = 50 MG/KG

VARIABLE IS ASPARAGN

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
MS. WHITE	9.85	8.47	11.22	9.36	6.16	10.85	9.73	7.09	5.63					
MS. DE P	19.28	21.44	21.82	19.32	17.96	***	14.64	16.63	17.54	***	***	***	***	***
MS. BLUEY	8.23	12.80	15.10	7.58	9.81	10.70	12.60	9.82	10.80	***	***	***	***	***
MS. NCA	13.37	13.84	18.98	13.10	13.42	***	18.40	18.80	10.20	***	***	***	***	***
MS. NCB	9.62	***	5.33	4.02	11.90	8.28	5.02	12.90	6.42	***	***	***	***	***
MS. BLUSH	7.10	***	14.18	14.50	11.20	11.50	15.70	10.40	11.40	***	***	***	***	***
MEAN	11.26	14.14	14.44	11.38	11.74	10.33	13.44	12.01	10.84	0.0	0.0	0.0	0.0	0.0
STD. DEV	4.45	5.40	5.81	5.40	3.92	1.41	3.74	4.42	4.21	0.0	0.0	0.0	0.0	0.0
N	6.	4.	6.	6.	6.	4.	5.	6.	5.	0.	0.	0.	0.	0.

ASC AMINO ACIDS

ASPARTAME , DOSE = 50 MG/KG

VARIABLE IS GLUTAMIN

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
MS. BLUSH	56.10	***	59.50	58.10	54.70	59.00	59.40	57.90	52.80	***	***	***	***	***
MS. DE P	56.00	51.25	48.31	38.77	46.94	***	46.97	47.05	50.01	***	***	***	***	***
MS. BLUEY	42.90	47.50	43.60	44.20	41.80	46.20	48.10	42.20	44.60	***	***	***	***	***
MS. NCB	49.20	***	52.50	55.50	50.20	52.80	46.10	50.70	48.20	***	***	***	***	***
MS. NCA	31.02	33.30	34.05	31.57	24.60	***	26.40	25.10	25.20	***	***	***	***	***
MS. WHITE	48.10	43.81	44.51	45.42	41.49	43.27	40.89	38.58	39.28	***	***	***	***	***
MEAN	47.06	43.90	47.09	45.59	43.50	51.04	44.58	43.15	43.35	0.0	0.0	0.0	0.0	0.0
STD. DEV	9.58	7.73	8.66	10.00	10.43	7.07	10.93	11.26	10.05	0.0	0.0	0.0	0.0	0.0
N	6.	4.	6.	6.	6.	4.	6.	6.	6.	0.	0.	0.	0.	0.

TABLE X - INDIVIDUAL DATA AMINO ACIDS

ASPARTAME , DOSE = 50 MG/KG

TABLE X Erythrocyte amino acid levels (umoles/100 gm) in lactating women administered ASPARTAME at 50 mg/kg/body weight.

VARIABLE IS GLYCINE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
MS. BLEY	36.00	38.00	36.60	36.10	36.30	40.10	36.90	37.00	36.40	***	***	***	***	***
MS. DE P	54.15	54.32	52.75	45.54	53.08	***	54.53	50.55	53.08	***	***	***	***	***
MS. WHIT	61.95	58.33	58.66	59.56	55.63	62.03	60.81	60.62	61.05	***	***	***	***	***
MS. MEA	33.55	32.65	27.25	35.68	33.07	***	35.90	33.90	35.20	***	***	***	***	***
MS. BLUM	28.10	***	28.20	26.40	25.30	26.40	27.30	26.80	24.30	***	***	***	***	***
MS. KLF	51.10	***	42.50	62.30	66.80	61.30	60.41	62.30	62.25	***	***	***	***	***
MEAN	45.18	45.95	46.26	44.26	45.03	47.58	46.71	45.20	45.72	0.0	0.0	0.0	0.0	0.0
STD. DEV	12.63	12.54	14.24	14.29	15.87	17.47	15.00	14.78	15.41	0.0	0.0	0.0	0.0	0.0
N	6	4	6	6	5	4	6	6	6	0	0	0	0	0

ASPARTAME , DOSE = 50 MG/KG

VARIABLE IS ALANINE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
MS. KLF	17.50	***	22.10	26.40	25.60	21.55	23.90	22.90	20.40	***	***	***	***	***
MS. MEA	15.06	20.35	23.51	23.71	23.80	***	26.40	23.30	19.20	***	***	***	***	***
MS. DE P	27.45	27.50	27.55	29.40	29.97	***	30.51	30.24	37.51	***	***	***	***	***
MS. WHIT	40.82	26.45	40.51	43.78	41.80	50.58	50.15	47.95	42.37	***	***	***	***	***
MS. BLEY	27.40	23.10	28.90	31.10	30.00	40.10	35.20	23.60	30.60	***	***	***	***	***
MS. BLUM	23.80	***	26.80	28.80	27.20	29.80	28.60	26.20	23.10	***	***	***	***	***
MEAN	25.35	28.00	28.23	30.53	29.69	35.51	33.13	29.55	24.90	0.0	0.0	0.0	0.0	0.0
STD. DEV	9.14	7.45	6.54	6.93	6.42	12.59	9.84	9.26	9.53	0.0	0.0	0.0	0.0	0.0
N	6	4	6	6	6	4	6	6	6	0	0	0	0	0

TABLE X Erythrocyte amino acid levels (umoles/100 gm) in lactating women administered ASPARTAME at 50 mg/kg/body weight.

ASPARTAME, COSE = 50 MG/KG

VARIABLE IS CYSTINE

[illegible]

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AMINO ACIDS

ASPARTAME, CCSE = 50 MG/KG

VALUABLE IS MENTION

[illegible]

SEARLE STUDY - INDIVIDUAL DATA
RBC AMINO ACIDS

TABLE X Erythrocyte amino acid levels (umoles/100 gm) in lactating women administered ASPARTAME at 50 mg/kg/body weight.

ASPARTAME , DOSE = 50 MG/KG

VARIABLE IS ISOLEUCINE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
MS. DE P	3.43	3.23	2.56	4.05	2.26	1.09	1.09	2.21	1.95	2.01	2.01	2.01	2.01	2.01
MS. BLSH	2.81	2.81	2.61	2.42	1.72	1.93	1.52	1.88	2.01	2.01	2.01	2.01	2.01	2.01
MS. BLEY	4.76	4.06	4.61	4.33	2.97	2.83	3.46	3.13	3.70	3.70	3.70	3.70	3.70	3.70
MS. KLN	1.46	1.46	1.43	1.52	1.28	1.36	1.20	1.76	1.74	1.74	1.74	1.74	1.74	1.74
MS. MEA	4.40	2.19	2.03	2.03	1.68	1.53	1.94	1.94	2.21	2.21	2.21	2.21	2.21	2.21
MS. WHIT	6.35	6.00	4.00	2.62	4.72	2.96	4.97	3.46	3.77	3.77	3.77	3.77	3.77	3.77
MEAN	3.56	4.12	3.04	2.83	2.45	2.26	2.29	2.40	2.56	2.56	2.56	2.56	2.56	2.56
STD. DEV	1.85	1.32	1.12	1.12	1.28	0.75	1.57	0.72	0.92	0.92	0.92	0.92	0.92	0.92
N	6	6	6	6	6	4	6	6	6	6	6	6	6	6

RBC AMINO ACIDS

ASPARTAME , DOSE = 50 MG/KG

VARIABLE IS LEUCINE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
MS. KLN	4.27	4.27	4.36	4.33	3.85	3.33	3.64	4.47	4.70	4.70	4.70	4.70	4.70	4.70
MS. BLEY	9.76	8.71	9.16	8.63	5.51	5.21	5.14	6.32	7.81	7.81	7.81	7.81	7.81	7.81
MS. MEA	7.06	7.06	7.40	6.36	5.43	5.14	5.14	6.18	7.24	7.24	7.24	7.24	7.24	7.24
MS. DE P	8.43	3.12	7.83	6.50	6.79	8.56	8.56	6.18	5.41	5.41	5.41	5.41	5.41	5.41
MS. WHIT	9.93	9.01	5.25	7.56	6.35	7.12	7.23	7.97	8.33	8.33	8.33	8.33	8.33	8.33
MS. BLSH	9.00	8.30	8.30	5.96	6.60	5.09	5.02	5.83	6.14	6.14	6.14	6.14	6.14	6.14
MEAN	8.16	8.45	7.81	6.56	5.55	5.21	5.79	6.24	6.62	6.62	6.62	6.62	6.62	6.62
STD. DEV	2.02	0.49	1.02	1.46	1.16	1.36	1.78	1.15	1.43	1.43	1.43	1.43	1.43	1.43
N	6	6	6	6	6	4	6	6	6	6	6	6	6	6

SEAPLE STUDY - INDIVIDUAL DATA

RBC AMINO ACIDS

TABLE X Erythrocyte amino acid levels (umoles/100 gm) in lactating women administered ASPARTAME at 50 mg/kg/body weight.

ASPARTAME , DOSE = 50 MG/KG

VARIABLE IS TYROSINE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	7 HR	9 HR	24 HR
MS. RLEY	7.73	7.02	8.27	9.91	8.91	9.93	10.10	9.34	8.21	8.21	8.21	8.21	8.21
MS. DE P	3.48	3.73	6.67	6.25	6.99	6.99	7.32	6.34	4.12	4.12	4.12	4.12	4.12
MS. MEA	4.02	5.43	7.12	4.25	4.11	4.11	6.78	3.96	4.02	4.02	4.02	4.02	4.02
MS. RLE	2.16	*****	3.00	5.90	3.30	2.57	5.45	3.27	3.32	3.32	3.32	3.32	3.32
MS. RUSH	4.59	*****	6.16	6.11	5.99	6.22	5.94	6.18	5.99	5.99	5.99	5.99	5.99
MS. RUT	5.51	6.38	7.27	7.51	8.03	8.39	7.10	7.15	6.34	6.34	6.34	6.34	6.34
MEAN	4.71	5.64	6.41	6.65	6.24	6.80	7.11	6.14	5.43	5.43	5.43	5.43	5.43
STD. DEV	1.89	1.43	1.81	1.50	2.22	3.15	1.63	2.06	1.77	1.77	1.77	1.77	1.77
N	6	4	6	6	6	4	6	6	6	6	6	6	6

RBC AMINO ACIDS

ASPARTAME , DOSE = 50 MG/KG

VARIABLE IS PHENYLAL

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	9 HR	24 HR
MS. RLEY	3.91	7.39	17.10	17.10	11.50	12.10	8.88	7.16	5.78	5.78	5.78	5.78	5.78	5.78
MS. RUSH	3.01	*****	15.50	14.40	12.40	13.30	11.50	9.26	7.04	7.04	7.04	7.04	7.04	7.04
MS. MEA	3.21	6.63	9.95	5.55	5.50	*****	7.43	3.13	3.30	3.30	3.30	3.30	3.30	3.30
MS. RLE	1.23	*****	7.16	12.80	7.16	5.77	7.52	2.57	2.16	2.16	2.16	2.16	2.16	2.16
MS. DE P	1.96	5.86	7.81	8.39	10.29	*****	6.56	6.16	3.23	3.23	3.23	3.23	3.23	3.23
MS. RUT	4.56	4.93	8.33	8.73	9.06	9.38	8.76	7.31	6.24	6.24	6.24	6.24	6.24	6.24
MEAN	2.58	6.20	11.04	11.16	9.33	10.14	8.44	5.53	4.72	4.72	4.72	4.72	4.72	4.72
STD. DEV	1.23	1.05	4.34	4.22	2.64	3.34	1.74	2.60	2.23	2.23	2.23	2.23	2.23	2.23
N	6	4	6	6	6	4	6	6	6	6	6	6	6	6

SEARLE STUDY - INDIVIDUAL DATA
REC AMINO ACIDS

TABLE X Erythrocyte amino acid levels (umoles/100 gm) in lactating women administered ASPARTAME at 50 mg/kg/body weight.

ASPARTAME , DOSE = 50 MG/KG

VARIABLE IS URANITHIN

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
MS. WHIT	16.46	14.34	14.49	16.32	15.12	15.43	15.37	11.35	13.91	13.91	13.91	13.91	13.91	13.91
MS. DE F	11.42	12.21	13.00	13.56	14.20	15.58	10.58	11.35	13.91	13.91	13.91	13.91	13.91	13.91
MS. BLUT	17.00	18.50	18.00	18.50	16.50	19.50	16.80	18.20	17.20	13.91	13.91	13.91	13.91	13.91
MS. BLH	10.30	12.00	12.10	14.70	14.70	15.90	12.50	12.50	11.80	13.91	13.91	13.91	13.91	13.91
MS. MEA	10.14	12.67	14.20	14.49	14.02	15.40	13.30	13.30	13.70	13.91	13.91	13.91	13.91	13.91
MS. BLSP	9.10	12.00	8.95	9.40	8.59	9.21	8.59	8.20	6.50	13.91	13.91	13.91	13.91	13.91

MEAN	12.40	13.93	13.63	14.49	13.82	14.87	13.35	13.17	12.70	0.0	0.0	0.0	0.0	0.0
STD. DEV	3.44	3.40	3.05	3.04	2.67	5.22	3.08	3.42	3.78	0.0	0.0	0.0	0.0	0.0
N	6	4	6	6	6	3	6	6	5	0	0	0	0	0

RBC AMINO ACIDS

ASPARTAME , DOSE = 50 MG/KG

VARIABLE IS LYSINE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
MS. BLSP	9.90	14.02	14.30	14.19	14.22	15.70	15.70	15.90	15.70	15.70	15.70	15.70	15.70	15.70
MS. MEA	12.85	14.02	14.30	14.19	14.22	15.70	15.70	15.90	15.70	15.70	15.70	15.70	15.70	15.70
MS. BLH	9.94	14.02	14.30	14.19	14.22	15.70	15.70	15.90	15.70	15.70	15.70	15.70	15.70	15.70
MS. WHIT	20.75	19.02	17.08	16.61	18.07	14.83	14.83	14.45	11.30	11.30	11.30	11.30	11.30	11.30
MS. DE F	12.47	11.25	10.77	10.85	11.56	10.04	10.04	10.78	11.29	11.29	11.29	11.29	11.29	11.29
MS. BLUT	13.80	14.60	13.70	13.00	10.30	14.80	13.10	13.60	15.10	15.10	15.10	15.10	15.10	15.10

MEAN	13.28	14.72	12.67	12.77	12.48	12.47	12.71	12.67	12.47	0.0	0.0	0.0	0.0	0.0
STD. DEV	3.97	3.22	2.85	2.32	3.14	2.11	2.52	2.37	2.84	0.0	0.0	0.0	0.0	0.0
N	6	4	6	6	6	3	6	6	5	0	0	0	0	0

SEATTLE STUDY - INDIVIDUAL DATA
ROC AMINO ACIDS

TABLE X Erythrocyte amino acid levels (umoles/100 gm) in lactating women administered ASPARTAME at 50-mg/kg/body weight.

ASPARTAME , DOSE = 50 MG/KG

VARIABLE IS HISTIDIN

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	3 HR	24 HR
MS. DE F	7.95	7.45	6.12	7.12	7.57	6.54	6.54	7.41	8.12	8.12	8.12	8.12	8.12	8.12
MS. BLST	7.17	7.50	7.20	6.90	5.02	7.83	6.85	6.43	7.45	7.45	7.45	7.45	7.45	7.45
MS. WHIT	9.11	8.25	6.84	5.48	7.51	6.93	3.93	3.49	3.49	3.49	3.49	3.49	3.49	3.49
MS. MEA	7.33	7.26	5.73	7.15	7.04	7.39	7.16	7.16	7.16	7.16	7.16	7.16	7.16	7.16
MS. BLF	5.25	5.58	5.58	5.55	6.29	5.82	5.82	5.74	5.66	5.66	5.66	5.66	5.66	5.66
MS. BLSH	6.81	6.36	6.36	6.77	6.01	7.35	7.35	6.22	5.63	5.63	5.63	5.63	5.63	5.63
MEAN	7.29	7.61	6.37	6.66	6.62	7.13	6.38	6.09	6.80	6.80	6.80	6.80	6.80	6.80
STD. DEV	1.26	0.44	0.55	0.62	1.06	0.62	1.33	1.42	1.10	1.10	1.10	1.10	1.10	1.10
N	6	4	6	6	6	3	6	6	5	0	0	0	0	0

ROC AMINO ACIDS

ASPARTAME , DOSE = 50 MG/KG

VARIABLE IS ARGININE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	3 HR	24 HR
MS. BLSH	1.01	2.02	1.29	1.01	0.79	0.99	0.54	0.82	1.09	1.09	1.09	1.09	1.09	1.09
MS. BLF	2.02	2.48	3.56	3.08	3.67	1.97	2.43	2.07	2.04	2.04	2.04	2.04	2.04	2.04
MS. DE F	2.82	2.48	2.15	1.75	2.04	1.83	1.83	0.85	2.72	2.72	2.72	2.72	2.72	2.72
MS. BLST	2.48	3.15	3.77	2.90	2.17	3.17	2.57	1.85	2.76	2.76	2.76	2.76	2.76	2.76
MS. WHIT	2.64	2.69	2.71	2.19	2.40	2.34	2.34	2.05	3.67	3.67	3.67	3.67	3.67	3.67
MS. MEA	2.63	3.60	3.81	2.12	2.11	2.76	2.76	3.32	3.67	3.67	3.67	3.67	3.67	3.67
MEAN	2.27	2.93	2.95	2.17	2.20	2.02	2.08	1.79	2.46	2.46	2.46	2.46	2.46	2.46
STD. DEV	0.67	0.52	1.08	0.76	0.92	1.11	0.32	0.93	0.99	0.99	0.99	0.99	0.99	0.99
N	6	4	6	6	6	3	6	6	5	0	0	0	0	0

Breast milk amino acid levels (umoles/dl) in lactating women administered ASPARTAME at 50 mg/kg body weight.

LACTATION STUDIES - INDIVIDUAL DATA		TABLE XI										Breast milk amino acid levels (umoles/dl) in lactating women administered ASPARTAME at 50 mg/kg body weight.	
MILK AMINO ACIDS		ASPARTAME • DOSE = 50 MG/KG											
VARIABLE IS THREON													
SUBJECT / TIME		0 HR	1 PR	2 HR	3 HR	4 HR	6 HR	12 HR	24 HR				
MS. DE P	3.57	3.12	3.44	3.20	3.21	4.28	5.27	6.19	0.0	0.0	0.0	0.0	
MS. DEY	9.63	8.83	8.63	0.28	8.60	5.01	7.33	5.83	0.0	0.0	0.0	0.0	
MS. WHIT	9.72	9.67	9.83	11.10	9.38	7.20	14.83	12.10	0.0	0.0	0.0	0.0	
MS. KLF	5.80	8.54	10.15	10.41	10.55	7.73	7.26	9.28	0.0	0.0	0.0	0.0	
MS. BLSH	3.20	3.34	4.91	4.87	5.08	8.41	4.72	3.55	0.0	0.0	0.0	0.0	
MS. PEA	6.21	6.16	5.51	5.55	7.09	6.33	5.69	4.65	0.0	0.0	0.0	0.0	
MEAN	6.85	6.63	7.15	5.50	7.33	7.24	7.85	7.10					
STD. DEV	2.98	2.92	2.79	4.18	2.79	1.65	3.51	3.52					
N	6.	6.	6.	6.	6.	6.	6.	6.					

WITH SOIL ACIDS

344.874575 50 MG/KG

EVERS SI 375V:04A

CLASS	0 HR	1 HR	2 HR	3 PP	4 HR	8 HR	12 HR	24 HR				
RES. PEA	11.59	12.13	13.04	11.58	13.51	14.37	5.90	11.33	0.0	0.0	0.0	0.0
RES. RICH	5.23	5.39	11.40	8.50	9.19	11.50	8.62	5.28	0.0	0.0	0.0	0.0
RES. XDF	18.99	19.22	20.65	22.08	20.50	16.59	17.56	15.46	0.0	0.0	0.0	0.0
RES. WPT	12.10	12.30	12.80	13.90	11.10	8.39	20.80	17.50	0.0	0.0	0.0	0.0
RES. SUT	16.00	13.70	13.50	12.80	13.50	13.40	12.10	12.30	0.0	0.0	0.0	0.0
RES. DEP	7.49	8.12	8.24	8.27	8.40	9.18	12.27	11.56	0.0	0.0	0.0	0.0
SEAN	11.50	11.81	13.27	12.52	12.73	12.30	13.54	12.24				
STD. DEV	5.12	4.77	4.09	5.04	4.72	3.26	4.69	4.19				
N	6.	6.	6.	6.	6.	6.	6.	6.				

LACTATION STUDIES - INDIVIDUAL DATA
MILK AMINO ACIDS

VARIABLE IS GLUTAMAT

[illegible]

VARIABLE IS PROLINE

[illegible]

Breast milk amino acid levels (umoles/dl) in lactating women administered ASPARTAME at 50 mg/kg body weight.

FERMENTATION STUDIES - INDIVIDUAL DATA

MILK AMINO ACIDS

ASPARTAME, DOSE = 50 MG/KG

VARIABLE IS CITRULLIN

SUBJECT / TIME	0 HR	1 HR	2 HR	3 HR	4 HR	8 HR	12 HR	24 HR
P.S. GREY	1.42	1.77	0.58	0.56	1.35	C.45	1.73	1.2C
P.S. WHITE	0.36	0.56	0.45	0.43	0.36	0.27	C.74	0.44
P.S. CEP	0.11	0.10	C.27	0.04	***	0.10	C.14	0.09
P.S. KLR	2.79	2.05	2.C8	2.24	2.46	1.56	1.43	C.55
P.S. ELSH	0.43	0.19	0.45	1.10	1.23	2.16	0.60	0.50
P.S. AEA	0.20	0.11	0.25	0.11	C.35	C.31	0.29	0.31
MEAN	0.88	0.93	C.74	0.75	1.16	0.81	0.82	C.59
STD. DEV	1.05	1.13	C.65	0.62	0.66	C.84	0.63	C.42
N	6.	6.	6.	6.	5.	6.	6.	6.

SG137 ONI47 X714

ASPARTAME, DCSE = 50 MG/KG

VARIABLE IS GLYCINE

[illegible]

**LACTATION STUDIES - INDIVIDUAL CATTLE
MILK AMINO ACIDS**

ASPARTATE • DCSE = 50 MG/KG													
VARIABLE IS VALINE													
SUBJECT	TIME	0 HR	1 HR	2 HR	3 HR	4 HR	9 HR	12 HR	24 HR				
MS- BLT		4.75	4.46	3.97	4.44	4.07	3.94	4.31	4.30	0.0	0.0	0.0	0.0
MS- BLT		4.16	4.42	4.38	5.02	4.21	3.55	7.41	5.79	0.0	0.0	0.0	0.0
MS- BLT		3.77	3.28	3.61	3.25	3.39	3.33	4.62	4.50	0.0	0.0	0.0	0.0
MS- KLF		3.84	3.75	4.26	4.20	4.62	5.84	5.09	6.11	0.0	0.0	0.0	0.0
MS- BLT		2.05	2.79	3.65	4.43	4.92	5.25	7.20	3.43	0.0	0.0	0.0	0.0
MS- BLT		3.67	4.26	4.18	4.09	4.83	5.45	4.09	3.88	0.0	0.0	0.0	0.0
MEAN		3.71	3.83	4.01	4.24	4.34	5.23	5.45	4.73				
STD. DEV		0.50	0.68	0.31	0.58	0.57	2.22	1.47	1.06				
N		6.	6.	6.	6.	6.	6.	6.	6.				

FIXING ACIDS

38712005A 0050 = 50 MG/KG

WATER-SOLUBLE IS CYSTINE

SUBJECT / TIME	0 HR	1 HR	2 HR	3 HR	4 HR	8 HR	12 HR	24 HR				
W.S. SEA	2.30	3.05	1.26	3.73	3.08	3.23	4.65	2.24	0.0	0.0	0.0	0.0
W.S. BUSH	2.29	2.30	3.17	3.74	3.58	8.80	7.10	4.37	0.0	0.0	0.0	0.0
W.S. KLF	4.22	3.67	3.36	3.72	3.83	4.15	4.23	5.05	0.0	0.0	0.0	0.0
W.S. DEF	6.37	4.32	5.28	5.26	5.71	4.42	3.32	4.67	0.0	0.0	0.0	0.0
W.S. SUGT	3.91	3.80	3.72	10.80	3.96	5.44	5.32	4.66	0.0	0.0	0.0	0.0
W.S. WIT	4.81	6.42	5.68	5.72	5.81	3.35	6.50	7.07	0.0	0.0	0.0	0.0
MEAN	4.07	4.04	4.41	5.51	4.33	4.93	5.19	4.68				
STD. DEV	1.46	1.29	2.15	2.74	1.15	2.07	1.42	1.54				
N	6.	6.	6.	6.	6.	6.	6.	6.				

Breast milk amino acid levels (umoles/dl) in lactating women administered ASPARTAME at 50 mg/kg body weight.

[illegible][illegible]

TABLE XI Breast milk amino acid levels (umoles/dl) in lactating women administered ASPARTAME at 50 mg/kg body weight.

LACTATION STUDIES - INDIVIDUAL DATA
MILK APIC ACIDS

ASPIRINE, DCE - 50 MG/KG

VARIABLE IS PHENYLAL

[illegible]

SCIDY DINING: 171

3411-7350 DOSE = 50 MG/KG

WARRIAGE IS CRAITHN

[illegible]

TABLE XI Breast milk amino acid levels (umoles/dl) in lactating women administered ASPARTAME at 50 mg/kg body weight.

[illegible]

TABLE XII

EFFECT OF INCREASING BREAST MILK PHENYLALANINE LEVELS UPON INFANT'S INGESTION

1. Breast milk intake for 3.5 kg infant:

Mean	171 ml/kg
90% Confidence Limits	228 ml/kg

2. An increase in breast milk phenylalanine levels of 1.8 μ moles/dl would increase ingested phenylalanine as follows:

Mean	3.1 μ moles/kg or 0.51 mg/kg
90% Confidence Limits	4.12 μ moles/kg or 0.69 mg/kg

3. Normal phenylalanine intake from breast milk protein.

Mean	83 mg/kg
90% Confidence Limits	110 mg/kg

TABLE XIII
EFFECT OF INCREASING BREAST MILK ASPARTATE LEVELS UPON INFANT'S INGESTION

1. Breast milk intake from 3.5 kg infant:		
Mean	171 ml/kg	
90% Confidence Limits	228 ml/kg	
2. An increase in breast milk aspartate levels of 2.7 μ moles/dl would increase ingested aspartate levels as follows:		
Mean	4.6 μ moles/kg or 0.77 mg/kg	
90% Confidence Limits	6.3 μ moles/kg or 1.0 mg/kg	
3. Normal aspartate intake from breast milk protein.		
Mean	109 mg/kg	
90% Confidence Limits	145 mg/kg	

TABLE XIV Plasma amino acid levels (umoles/dl) in normal subjects administered ASPARTAME (100 mg/kg) in solution.

[illegible]

ASPARTAMEL, CCSE = 100 MG/KG

TABEL XIV Plasma amino acid levels (umoles/dl) in normal subjects administered ASPARTAME (100mg/kg) in solution.

[illegible]

SCIENCE AND ARTS

ASPARINATESL, DISE = 100 MG/KG

VARIABLE IS THREE.

[illegible]

SCIENCE AND ARTS

ASPARTAMESEL, CASE = 100 MG/KG

SUBJECT / TIME

CLASSIFICATION OF AMINO ACIDS

VARIABLE IS SPARAGN

2022

FLUOROPOLYMER ACIDS

TABLE XIV Plasma amino acid levels (umoles/dl) in normal subjects administered ASPARTAME (100 mg/kg) in solution

ASPARTAMESEL, DCSE = 100 MG/XG

VARIABLE IS GLUTAMIN

[illegible]

PLASMA AMINO ACIDS

ASPAR14MESCL, DCSE = 100 MG/KG

VARIALE IS-GULTAMAI

[illegible]

FLASMA AMINO ACIDS

TABLE XIV Plasma amino acid levels (μ moles/dl) in normal subjects administered ASPARTAME (100 mg/kg) in solution.

ACQUAYAMESCI, CCE = 100 NG/KG

370418Z
301708Z-5

[illegible]

PLASMA AMING ACIES

ASPARTATE-SOL, CUSE = ICC MG/KG

WHALE IS CIRCUIT

[illegible]

SEARLE CYCLES - INDIVIDUAL DATA
PLASMA AMINO ACIDS

TABLE XIV Plasma amino acid levels (μ moles/dl) in normal subjects administered ASPARTAME (100 mg/kg) in solution.

ASPAFTANESCL, DCSE = 100 KG/KG.

VARIABLE IS. GLYCINE.

[illegible]

PLASMA AMINO ACIDS

ASPARINATESOL, DUSE = 100 MG/KG

VARIABLE IS ALANINE

[illegible]

PLASMA AMINO ACIDS

ASPARTAMECL, C05E = 100 MG/KG

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	3 Wk	24 HR
R. WYATT	2.02	1.98	2.31	2.00	1.94	1.87	1.83	1.85	1.60	1.77	1.96	2.01	2.02	1.88
R. WALKER	2.05	1.90	2.03	2.25	2.09	1.45	1.75	1.65	1.53	1.49	1.42	1.77	1.96	1.97
N. WYATT	1.00	1.10	0.55	0.94	1.13	1.07	0.92	0.92	0.93	0.99	1.05	1.31	1.29	1.47
K. SMITH	1.23	1.35	1.34	1.27	1.25	1.12	2.33	1.35	1.17	1.12	1.08	0.94	1.16	1.54
L. SMITH	2.33	2.19	2.20	2.02	2.11	2.11	2.04	1.91	1.78	1.91	1.92	1.75	1.94	2.85
L. FLATT	1.57	1.70	1.67	1.82	1.75	1.51	1.55	1.47	1.61	1.71	1.92	1.98	2.03	1.95

[illegible]

ASPARTAME SCL, DCSE = 100 MG/KG

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
J. FLATT	24.30	22.58	22.13	20.34	19.27	17.76	16.77	15.67	18.42	18.26	18.99	18.29	18.35	25.02
R. WALKER	21.23	20.37	19.96	22.38	18.22	16.01	16.54	16.41	15.31	16.43	16.53	17.35	17.50	25.43
K. SMITH	16.15	14.80	14.65	12.98	11.81	10.51	12.61	13.67	10.24	12.25	12.30	11.55	12.29	22.76
A. SMITH	17.69	18.35	16.80	17.48	16.07	15.33	14.53	15.36	15.63	17.11	18.22	19.54	13.48	23.07
N. SMITH	30.60	25.70	25.60	24.60	23.90	22.90	22.10	20.70	20.60	23.00	24.00	22.30	22.90	27.50
C. SMITH	22.77	22.71	22.53	21.14	19.18	18.05	17.16	19.25	18.41	13.32	20.55	20.67	19.62	26.42

[illegible]

TABLE XIV Plasma amino acid levels (umoles/dl) in normal subjects administered ASPARTAME (100 mg/kg) in solution.

VARIABLE IS CYSTINE

[illegible]

ASPARTANESCL, DCSE = 100 MG/KG

VARIABLE IS METHICIN

[illegible]

TABLE XIV Plasma amino acid levels (μ moles/dl) in normal subjects administered ASPARTAME (100 mg/kg) in solution.

VARIALE - IS ISCLEUCN

[illegible]

ASPARTAME, COSE = 100 MG/KG

VARIALE IS LECINE

[illegible]

TABLE XIV Plasma amino acid levels (umoles/dl) in normal subjects administered ASPARTAME (100 mg/kg) in solution.

ENISODI SI STEVILNA
VARIABLE IS TYROSINE

[illegible]

ASPARTAME SOL, DGE = 100 MG/KG

AVAILABLE IS PHENYLAL

[illegible]

TABLE XIV Plasma amino acid levels (μ moles/dl) in normal subjects administered ASPARTAME (100 mg/kg) in solution.

ASPARTAMESECL, ECSE = 100 MG/KG

VARIAELE IS-CKNITN

[illegible]

FLASK AND ACIDS

AGZRTAESL, DUSE = 100 MG/KG

VARIELE IS LYSINE-

SUBJECT / TIME	J MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
R.R. WALKS	19.73	19.52	19.85	21.33	18.77	16.71	17.04	16.89	15.74	15.11	14.18	15.25	16.23	19.25
R.R. WAIT	21.77	21.95	23.20	22.47	20.21	19.03	18.53	19.64	19.56	19.58	21.54	21.33	20.37	20.36
L.L. SWIM	21.70	19.30	19.20	18.70	17.80	18.30	19.00	18.40	18.20	20.60	20.10	18.60	20.30	17.30
J.J. FLAT	19.57	18.16	19.87	17.51	16.65	17.35	17.31	17.42	18.91	20.61	20.80	19.91	20.30	22.55
K.K. SWIM	13.78	17.61	16.56	15.16	13.68	13.45	16.90	15.58	13.68	15.04	13.75	12.30	15.13	16.89
N.N. WAIT	19.71	20.70	17.97	18.78	18.51	19.00	18.17	20.13	20.40	20.17	20.59	20.93	20.62	24.57
MEAN	20.26	19.54	19.29	19.07	17.52	17.21	17.66	18.00	17.75	18.52	18.56	18.14	19.78	20.16
S.D.	1.20	1.60	2.27	2.72	2.28	2.10	0.67	1.71	2.55	2.69	3.59	3.40	2.42	3.00
C.V.	.06	.08	.12	.14	.13	.12	.04	.09	.14	.15	.20	.19	.12	.15

TABLE XIV. Plasma amino acid levels (μ moles/dl) in normal subjects administered ASPARTAME (100 mg/kg) in solution.

[illegible]

ASPARITAVESCL, DCSE = 100 MG/KG

[illegible]

290 AMINO ACIDS

TABLE XV Erythrocyte amino acid levels (umoles/100cm) in normal subjects administered ASPARTAME (100 mg/kg) in solution.

ASPARFAMESOL, DCSE = 100 NG/KG

VARIABLE IS TAPOINE

[illegible]

RCB AMINO ACIDS

ASPARTAMECL, COSE = 100 MG/KG

VARIABLE IS ASPARTAT

[illegible]

TABLE XV Erythrocyte amino acid levels (umoles/100gm) in normal subjects administered ASPARTAME (100 mg/kg) in solution.

VARIABLE IS THREEIN-

[illegible]

ACQUANTAVESUL, OCSE = 100 MG/KG

variable is SE_{EVAR}

[illegible]

21C AMINO ACIDS

ASPARTAME, COSE = 100 MG/KG

[illegible]

AL:PART:MESEL, DUSE = 100 MG/KG

[illegible]

TABLE XV Erythrocyte amino acid levels (umoles/100 gm) in normal subjects administered ASPARTAME -(100-mg/kg)-in-solution.

44-11-55, CSE = 100 MG/KG

WILKINS IS GULLYBAY-

[illegible]

SEC ANALYSIS

ASPARAGINE SUL, DISE = 100 MG/KG

[illegible]

TABLE XV Erythrocyte amino acid levels (μ moles/100 gm) in normal subjects administered ASPARTAME (100 mg/kg) in solution.

ASPARITAMESOL, DCSE = 100 MG/KG

[illegible]

2000

ASPA-TAMESL, COSE = 100 MG/KG

[illegible]

2. 2. 2. 2.

TABLE STUDY - INDIVIDUAL DATA
OF
AMINO ACIDS

TABLE XV Erythrocyte amino acid levels (umoles/100gm) in normal subjects administered ASPARTAME (100mg/kg) in solution.

:SPARIVAESCL, CCSE = 100 NG/KG

EXTRACTABLE IS CYSTINE

[illegible]

AMINO ACIDS

ASPIRATESOL, DOSE = 100 MG/KG

ACI-HIS 51 37E47A

[illegible]

TABLE XV Erythrocyte amino acid levels (umoles/100 gm) in normal subjects administered ASPARTAME (100 mg/kg) in solution.

UNCLASSIFIED

[illegible]

$\text{C}_6\text{H}_5\text{N}(\text{CH}_3)_2 \cdot \text{HCl}$, 0.055 = 100 MG/KG

WARRIALE IS LELINE

[illegible]

TABLE XV Erythrocyte amino acid levels (μ moles/100 gm) in normal subjects administered ASPARTAME (100 mg/kg) in solution.

[illegible]

ASPIRIN, CCSE = 100 MG/KG

[illegible]

REF AMT ACIES

RECEIVED
JAN 24 1964
STATION

TABLE XV Erythrocyte amino acid levels (umoles/100gm) in normal subjects administered ASPARTAME (100 mg/kg) in solution.

4. SOLAR IRRADIANCE, DCSE = 100 W/G/KG

VARIAELE IS JAHNIN-

[illegible]

AMINO ACIDS

SPARILAVESOL, DOSE = 100 MG/KG

EVENTS IN LYSINE

[illegible]

TABLE XV Erythrocyte amino acid levels (μ moles/100gm) in normal subjects administered ASPARTAME (-100 mg/kg) in solution.

administered AS/RYA-IT-100-15/5

100

[illegible]

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[illegible]

SEARLE STUDY - INDIVIDUAL DATA
PLASMA AMINO ACIDS

TABLE XVI Plasma amino acid levels (umoles/dl) in normal subjects
administered ASPARTAME (100 mg/kg) in slurry form.

ASPARTAMESLU, DOSE = 100 MG/KG

VARIABLE IS TAURINE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
L. SMITH	6.82	5.12	6.29	6.00	5.34	7.30	6.43	7.69	6.73	6.53	5.83	5.93	5.75	6.61
K. SMITH	7.83	7.95	5.63	7.30	6.71	6.96	6.43	7.24	7.41	5.80	6.51	6.91	6.70	8.03
J. FLATT	5.87	7.07	8.15	6.54	6.86	5.58	5.92	5.11	6.15	6.46	7.53	5.22	5.92	5.47
R. WALKE	3.33	4.71	4.88	3.65	4.34	3.47	4.82	3.58	3.45	3.75	5.93	3.95	4.35	4.13
K. SMITH	5.29	4.94	5.41	5.82	5.66	5.09	4.89	5.01	4.50	4.86	4.50	5.17	6.32	5.78
N. SMITH	6.02	6.64	6.45	6.88	4.94	*****	3.45	3.73	4.65	3.71	3.50	4.47	4.65	5.20
MEAN	5.86	6.24	6.14	6.10	5.79	5.78	5.82	5.46	5.46	5.16	5.69	5.27	5.68	5.84
STD. DEV	1.52	1.25	1.15	1.32	0.90	1.68	2.04	1.55	1.52	1.25	1.32	1.05	0.89	1.23
N	6.	6.	6.	6.	6.	5.	6.	6.	6.	6.	6.	6.	6.	6.

PLASMA AMINO ACIDS

ASPARTAMESLU, DOSE = 100 MG/KG

VARIABLE IS ASPART

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
R. SMITH	0.40	0.52	0.77	0.48	1.04	0.59	0.30	0.33	0.36	0.28	0.31	0.15	0.14	0.15
N. SMITH	0.31	0.33	0.35	0.45	0.14	*****	0.05	0.11	0.13	0.11	0.16	0.11	0.11	0.19
R. WALKE	0.13	0.24	1.66	3.60	1.11	0.95	0.55	0.44	0.18	0.19	0.28	0.23	0.25	0.29
J. FLATT	0.66	0.61	0.48	0.26	0.30	0.34	0.31	0.09	0.24	0.19	0.24	0.11	0.33	0.09
K. SMITH	0.91	0.64	0.38	0.27	0.15	0.12	0.10	0.16	0.09	0.12	0.16	0.05	0.05	0.09
L. SMITH	0.35	0.26	0.23	0.29	0.43	1.14	1.07	0.65	0.41	0.35	0.29	0.29	0.18	0.21
MEAN	0.46	0.43	1.48	1.51	0.53	0.63	0.40	0.30	0.23	0.21	0.24	0.16	0.13	0.17
STD. DEV	0.28	0.18	2.16	1.85	0.43	0.42	0.38	0.22	0.13	0.09	0.07	0.09	0.07	0.08
N	6.	6.	6.	6.	6.	5.	6.	6.	6.	6.	6.	6.	6.	6.

SERIAL STUDY - INDIVIDUAL DATA
PLASMA AMINO ACIDS

TABLE XVI Plasma amino acid levels (umoles/dl) in normal subjects administered ASPARTAME (100 mg/kg) in slurry form.

VARIABLE IS THREON

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
L. SMITH	14.76	13.76	13.94	13.24	13.61	14.29	12.39	12.71	12.44	12.17	11.63	11.77	14.37
K. SMITH	7.77	6.99	6.68	7.02	8.11	7.68	6.96	6.63	6.31	6.43	7.39	6.02	6.95
J. FLATT	16.36	18.39	20.48	20.43	20.87	17.22	16.51	15.07	15.19	13.61	14.36	14.04	14.22
R. WALKER	11.35	10.74	11.35	10.67	11.30	10.37	10.81	13.17	10.56	10.34	11.17	10.42	12.63
N. WYATT	19.82	18.28	17.66	16.92	20.97	19.87	19.20	16.95	15.69	16.33	16.51	15.97	20.95
R. WYATT	15.80	15.06	17.38	19.71	17.31	17.35	14.84	13.74	12.56	13.12	12.34	12.65	15.49
MEAN	14.31	13.87	14.58	14.16	15.26	13.38	13.40	12.92	12.39	11.88	12.21	11.91	14.04
STD. DEV	4.21	4.44	5.01	4.85	5.25	4.27	4.60	4.29	3.70	3.19	3.06	3.56	4.39
N	6.	6.	6.	6.	6.	5.	6.	6.	6.	6.	6.	6.	6.

PLASMA AMINO ACIDS

ASPARTAME SLU, DOSE = 100 MG/KG

VARIABLE IS SERINE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
R. WYATT	11.42	11.85	14.11	13.80	13.33	13.87	11.77	11.45	11.31	12.05	11.29	11.56	12.32
N. WYATT	13.38	12.42	12.02	11.70	14.29	13.61	13.76	12.41	12.01	12.54	12.70	12.51	13.40
R. WALKER	11.21	11.14	11.50	11.72	12.35	12.00	12.17	12.14	11.67	12.41	12.37	11.31	13.24
J. FLATT	17.58	16.74	18.51	18.00	18.56	15.47	15.10	13.82	14.35	13.09	13.61	13.71	13.25
K. SMITH	16.51	13.29	13.22	14.34	16.41	16.16	14.17	13.74	13.36	13.34	13.02	12.94	13.54
L. SMITH	13.20	12.58	12.77	12.47	12.70	13.72	14.31	14.28	13.32	13.08	12.46	12.21	13.62
MEAN	13.68	12.00	13.69	13.67	14.61	14.24	13.61	13.28	12.83	12.54	12.61	12.31	13.31
STD. DEV	2.63	1.97	2.53	2.38	2.42	1.63	1.41	1.18	1.13	0.71	0.82	0.72	0.28
N	6.	6.	6.	6.	6.	5.	6.	6.	6.	6.	6.	6.	6.

PEARLE STUDY - INDIVIDUAL DATA
PLASMA AMINO ACIDS

TABLE XVI Plasma amino acid levels (umoles/dl) in normal subjects administered ASPARTAME (100 mg/kg)-in-slurry form.

ASPARTAMESLU, DOSE = 100 MG/KG

VARIABLE IS ASPARAGIN

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
L. SMITH	7.15	5.65	5.58	6.00	5.08	6.02	6.01	3.97	4.77	3.67	2.35	4.28	3.42	5.45
J. FLATT	5.53	7.73	8.41	7.48	7.77	6.45	6.12	4.54	5.91	5.56	4.83	4.95	6.71	5.24
K. SMITH	3.60	5.00	5.34	5.98	7.38	6.21	7.57	5.11	4.83	5.26	4.81	4.53	3.70	6.09
R. WALKE	6.50	7.32	7.00	8.11	6.32	7.12	5.74	4.11	3.54	3.47	4.59	3.75	3.75	4.00
L. SMITH	8.70	7.73	6.84	6.76	7.34	*****	10.12	7.54	5.95	5.16	4.85	4.46	7.38	9.85
R. WYATT	7.66	4.67	6.98	6.65	7.22	7.32	6.00	5.86	5.29	5.74	4.62	4.43	4.77	4.33
MEAN	6.52	6.35	6.76	6.84	7.15	6.62	6.93	5.19	5.05	4.83	4.41	4.47	4.95	5.75
STD. DEV	1.76	1.41	1.04	0.84	0.73	0.57	1.70	1.35	0.90	1.06	1.02	0.41	1.70	1.67
N	6.	6.	6.	6.	6.	5.	6.	6.	6.	6.	6.	6.	6.	6.

PLASMA AMINO ACIDS

ASPARTAMESLU, DOSE = 100 MG/KG

VARIABLE IS GLUTAMIN

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
R. WYATT	63.28	62.06	71.28	70.92	76.75	75.19	60.40	60.02	58.27	59.74	60.26	64.95	62.21	67.66
K. SMITH	63.96	62.91	64.30	66.20	70.14	67.58	65.23	65.50	64.73	66.49	62.60	61.11	64.71	66.95
J. FLATT	60.20	69.07	76.43	83.25	67.69	70.43	68.56	68.12	65.96	69.76	68.95	70.75	71.03	50.55
N. SMITH	51.87	49.53	46.32	43.58	57.18	*****	56.06	56.61	50.81	55.74	62.70	55.87	52.44	50.54
L. SMITH	67.62	59.00	57.56	56.63	53.07	54.39	64.93	62.45	60.75	63.02	54.25	54.87	57.06	58.59
R. WALKE	63.21	62.22	58.37	58.42	56.11	60.00	56.41	59.71	64.26	66.20	67.91	60.77	67.56	64.71
MEAN	62.05	60.91	62.39	63.22	66.92	65.52	61.93	62.13	60.90	63.62	62.88	61.39	62.36	61.32
STD. DEV	5.58	6.37	10.73	13.46	13.61	8.31	5.12	4.27	5.65	5.09	5.31	5.50	6.55	6.28
N	6.	6.	6.	6.	6.	5.	6.	6.	6.	6.	6.	6.	6.	6.

FLYING ALPS

ASPIRIN, CASE = 100 MG/KG

VARIABLE IS GLIARAT

2452

PLASMA AMINO ACIDS

ASPAR:ARESLU, DCSE = 100 MG/KG

VARIALE IS PROLINE

7. 11. 2015

510. $E = Y$

INDIVIDUAL DATA
PLASMA AMINO ACIDS

TABLE XVI Plasma amino acid levels (umoles/dl) in normal subjects administered ASPARTAME (100 mg/kg) in slurry form.

ASPARTAMESLU, DOSE = 100 MG/KG

VARIABLE IS CITRULIN

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
N. WYATT	2.09	1.75	1.45	1.15	1.37	*****	1.20	1.31	1.47	1.82	1.86	1.79	1.94	2.09
K. SMITH	2.24	1.51	0.89	1.11	0.44	0.57	0.41	1.07	1.54	2.02	1.48	1.35	1.63	2.34
R. WALKER	2.20	2.16	1.72	1.45	1.41	1.20	1.44	1.85	1.92	1.72	2.31	2.23	1.74	2.25
L. SMITH	2.16	2.03	2.07	1.97	1.95	1.41	0.89	1.15	1.43	1.95	2.06	2.11	1.24	1.23
J. FLATT	2.81	2.81	2.58	2.31	2.35	1.97	2.09	1.86	2.19	2.13	2.42	2.45	2.44	2.55
R. WYATT	3.54	3.23	2.70	2.38	2.40	2.55	2.02	3.44	3.29	3.49	3.12	3.47	3.55	3.63
MEAN	2.51	2.25	1.91	1.73	1.65	1.54	1.47	1.89	1.98	2.20	2.21	2.30	2.11	2.38
STD. DEV	0.57	0.65	0.69	0.57	0.74	0.75	0.86	0.91	0.70	0.64	0.56	0.71	0.85	0.78
N	6.	6.	6.	6.	6.	5.	6.	6.	6.	6.	6.	6.	6.	6.

PLASMA AMINO ACIDS

ASPARTAMESLU, DOSE = 100 MG/KG

VARIABLE IS GLYCINE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
N. WYATT	17.65	15.59	16.28	15.02	16.24	16.82	15.85	16.05	14.75	14.39	14.49	16.05	16.30	21.24
J. FLATT	25.74	26.17	27.04	26.16	26.94	22.65	21.93	20.53	20.71	19.77	20.18	19.82	15.95	21.56
R. WALKER	21.20	21.14	18.26	19.37	16.59	18.43	17.00	17.42	18.41	17.49	19.65	18.01	17.32	22.25
L. SMITH	27.06	26.06	26.72	25.78	26.20	25.59	24.21	24.30	22.77	22.83	22.07	22.50	21.75	24.51
K. SMITH	32.68	23.60	28.72	28.81	28.04	27.10	27.52	27.27	25.90	26.20	24.57	25.67	25.95	20.08
N. WYATT	21.80	19.92	18.74	17.27	20.79	*****	20.31	19.02	16.59	14.99	15.05	15.53	15.30	19.53
MEAN	24.33	23.08	22.63	22.07	22.45	22.24	21.14	20.76	19.85	19.11	19.23	19.60	19.45	23.21
STD. DEV	5.30	5.11	5.44	5.58	5.30	4.53	4.39	4.27	4.11	4.61	3.94	3.92	3.90	3.73
N	6.	6.	6.	6.	6.	5.	6.	6.	6.	6.	6.	6.	6.	6.

SEARLE STUDY - INDIVIDUAL DATA
PLASMA AMINO ACIDS

TABLE XVI Plasma amino acid levels (umoles/dl) in normal subjects administered ASPARTAME (100 mg/kg) in slurry form.

ASPARTAMESLU, DOSE = 100 MG/KG

VARIABLE IS ALANINE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
K. SMITH	26.28	25.81	27.44	31.05	38.90	41.90	39.11	31.85	23.34	27.05	25.05	21.63	21.31	24.19
L. SMITH	45.94	41.76	40.15	38.00	38.33	49.34	50.26	55.66	41.53	34.56	30.20	27.06	27.13	39.56
N. WYATT	32.89	30.32	30.47	32.38	39.98	***	37.98	35.30	28.96	25.93	26.03	23.22	21.62	24.00
R. WALKE	30.89	30.85	36.86	43.60	43.00	40.31	40.41	31.46	31.06	29.07	20.90	24.17	25.72	22.33
J. FLATT	37.02	42.69	52.57	54.41	57.25	49.44	48.00	42.51	39.72	34.17	34.78	34.11	34.33	32.89
R. WYATT	28.86	25.38	43.37	55.26	54.26	50.41	36.05	31.05	27.33	24.71	22.99	25.64	24.33	33.17
MEAN	33.64	32.80	38.48	42.45	45.29	40.38	43.63	37.59	32.91	29.25	27.92	26.12	25.63	32.04
STD. DEV	7.04	7.64	9.10	10.59	8.32	4.62	9.12	5.67	6.12	4.22	4.21	4.51	4.18	6.85
N	6.	6.	6.	6.	6.	5.	6.	6.	6.	6.	6.	6.	6.	6.

PLASMA AMINO ACIDS

ASPARTAMESLU, DOSE = 100 MG/KG

VARIABLE IS ALANINE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
R. WYATT	2.30	2.12	2.45	2.42	2.59	2.53	2.16	2.05	2.05	2.24	2.15	2.24	2.28	2.52
R. WALKE	1.81	1.86	1.92	1.81	1.93	1.76	2.71	1.89	1.92	2.02	2.16	2.12	2.19	2.18
N. WYATT	1.31	1.29	1.22	1.13	1.32	***	1.24	1.14	1.08	1.14	1.19	1.21	1.30	1.35
J. FLATT	3.26	3.95	4.50	4.50	4.58	3.75	3.76	3.33	3.41	3.15	3.61	2.78	4.00	2.87
K. SMITH	0.38	0.66	0.67	0.76	0.77	0.76	0.59	0.67	0.63	0.75	1.40	0.75	0.93	0.72
L. SMITH	2.49	2.40	2.46	2.32	2.45	2.62	1.49	2.16	2.22	2.41	2.22	2.30	2.42	2.92
MEAN	1.92	2.05	2.21	2.16	2.27	2.28	2.01	1.87	1.90	1.90	2.14	2.08	2.19	2.16
STD. DEV	1.00	1.13	1.33	1.31	1.32	1.11	1.11	0.92	0.98	0.88	0.85	1.05	1.06	0.94
N	6.	6.	6.	6.	6.	5.	6.	6.	6.	6.	6.	6.	6.	6.

SEARLE STUDY - INDIVIDUAL DATA

PLASMA AMINO ACIDS

TABEL XVI Plasma amino acid levels (umoles/dl) in normal subjects.
 ASPARTAMESLU, DOSE = 100 MG/KG administered ASPARTAME (100 mg/kg) in slurry form.

VARIABLE IS VALINE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
L. SMITH	26.41	24.64	24.34	23.01	23.33	23.70	12.35	18.79	21.13	21.51	21.62	22.36	22.26	23.30
J. FLATT	24.38	26.45	28.05	26.86	26.62	21.94	21.79	20.27	21.42	20.65	22.27	22.09	23.11	21.53
K. SMITH	9.73	8.56	8.65	8.83	8.52	8.06	7.94	9.31	8.62	9.58	11.62	9.48	10.47	11.53
R. WALKER	23.82	23.84	21.44	22.61	20.36	21.44	21.14	15.91	20.74	20.91	22.91	20.97	20.52	23.91
N. WYATT	15.13	14.30	13.64	12.81	13.81	13.81	13.75	13.56	13.80	13.59	14.22	14.45	15.41	16.84
R. WYATT	22.99	21.40	23.36	22.01	21.62	21.39	18.89	18.85	18.39	19.77	18.92	22.26	21.79	20.57
MEAN	20.34	19.93	19.91	19.35	19.07	19.32	15.93	16.68	17.35	17.67	18.61	18.61	18.93	22.04
STD. DEV	6.48	6.34	7.30	6.54	6.64	6.37	5.51	4.69	5.14	4.91	4.65	5.39	4.96	5.91
N	6.	6.	6.	6.	6.	5.	6.	6.	6.	6.	6.	6.	6.	6.

PLASMA AMINO ACIDS

ASPARTAMESLU, DOSE = 100 MG/KG

VARIABLE IS CYSTINE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
R. WYATT	10.24	10.78	12.34	11.53	10.91	10.83	10.42	10.42	10.07	10.87	10.45	12.99	12.21	11.33
K. SMITH	8.02	7.67	7.52	8.45	8.75	8.34	7.99	7.01	6.50	8.16	7.59	7.03	7.35	7.78
J. FLATT	11.03	10.57	10.56	11.02	11.88	10.41	10.61	9.58	9.82	9.09	9.74	8.91	10.41	10.63
N. WYATT	9.81	9.20	9.05	7.81	9.58	9.88	9.19	9.18	8.09	7.56	9.16	8.53	8.82	8.90
R. WALKER	9.26	9.45	8.22	9.43	8.50	9.43	5.00	8.49	8.24	9.39	9.13	8.92	8.48	8.86
L. SMITH	10.39	11.02	11.05	10.86	11.08	10.85	8.34	10.25	10.35	10.52	10.10	10.92	9.94	10.10
MEAN	9.79	9.78	9.54	9.86	10.14	10.03	9.27	9.16	8.85	9.16	9.36	9.40	9.54	9.69
STD. DEV	1.05	1.27	1.78	1.51	1.37	0.97	1.08	1.27	1.47	1.25	1.01	2.01	1.70	1.46
N	6.	6.	6.	6.	6.	5.	6.	6.	6.	6.	6.	6.	6.	6.

SEARLE STUDY - INDIVIDUAL DATA
PLASMA AMINO ACIDS

TABEL XVI Plasma amino acid levels (umoles/dl) in normal subjects
administered ASPARTAME (100-mg/kg) in slurry-form.

ASPARTAMESLU, DOSE = 100 MG/KG

VARIABLE IS METHION

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
L. SMITH	3.43	3.22	3.22	3.00	2.94	3.13	2.07	2.67	2.80	2.82	2.70	2.60	2.66	3.23
R. WALKER	2.70	2.70	2.22	2.60	2.28	2.33	3.07	2.04	2.26	2.44	2.49	2.40	2.35	3.39
J. FLATT	2.79	3.19	3.36	3.00	3.00	2.72	2.57	2.54	2.46	2.34	2.69	2.91	2.83	2.78
K. WYATT	2.62	2.35	2.28	2.03	2.19	*****	2.47	2.39	2.32	2.15	1.58	2.15	2.12	2.64
K. SMITH	1.94	1.95	1.54	2.01	2.06	1.94	1.83	1.81	1.84	1.82	1.90	1.65	1.84	2.33
K. WYATT	2.83	2.73	3.02	2.71	2.80	2.75	2.24	2.20	2.20	2.23	2.30	2.30	2.34	2.73
MEAN	2.72	2.69	2.69	2.57	2.54	2.57	2.49	2.29	2.35	2.31	2.34	2.43	2.40	3.03
STD. DEV	0.48	0.49	0.58	0.46	0.41	0.45	0.63	0.32	0.34	0.33	0.35	0.47	0.37	0.54
N	6.	6.	6.	6.	6.	6.	6.	6.	6.	6.	6.	6.	6.	6.

PLASMA AMINO ACIDS

ASPARTAMESLU, DOSE = 100 MG/KG

VARIABLE IS ISOLEUCIN

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
L. SMITH	6.07	5.57	6.33	5.45	4.98	4.91	3.82	4.16	4.02	4.53	4.47	5.60	5.52	7.94
K. WYATT	4.31	3.97	3.73	3.42	3.44	***	3.67	3.60	3.85	3.65	3.74	4.11	4.53	4.44
K. SMITH	3.51	3.01	2.73	2.65	2.52	2.18	1.91	2.22	2.74	2.77	3.21	2.75	3.28	4.25
R. WALKER	5.53	5.04	4.42	4.58	4.15	4.01	5.16	3.79	3.97	4.09	4.59	4.43	4.20	6.61
J. FLATT	6.18	6.53	6.60	6.31	5.75	4.81	4.95	4.34	4.89	5.08	5.66	6.28	6.31	6.02
L. SMITH	6.93	6.04	5.54	5.45	5.49	5.48	2.97	4.00	4.59	4.81	4.83	5.70	5.57	7.61
MEAN	5.42	5.03	4.56	4.65	4.40	4.28	3.71	3.68	4.01	4.15	4.43	4.82	4.93	6.15
STD. DEV	1.28	1.32	1.57	1.37	1.22	1.28	1.33	0.76	0.74	0.95	0.83	1.29	1.11	1.55
N	6.	6.	6.	6.	6.	5.	6.	6.	6.	6.	6.	6.	6.	6.

SEASIDE STUDY - INDIVIDUAL DATA
PLASMA AMINO ACIDS

TABLE XVI Plasma amino acid levels (umoles/dl) in normal subjects
administered ASPARTAME (100 mg/kg) in slurry form.

ASPARTAME SLU, DOSE = 100 MG/KG

VARIABLE IS LEUCINE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
L. SMITH	14.57	13.06	12.69	11.75	11.38	11.87	5.74	8.31	10.21	10.77	11.46	12.83	13.04
N. WYATT	9.29	8.79	8.16	7.51	7.58	*****	7.66	7.62	8.08	8.23	8.64	9.30	10.10
K. SMITH	8.50	7.60	7.03	7.10	6.71	5.75	5.30	6.35	7.10	7.38	9.07	7.77	8.91
J. FLATT	13.12	15.00	15.49	14.54	13.83	11.16	10.43	10.35	11.63	11.79	12.97	12.15	14.95
R. WYATT	12.73	11.82	13.02	11.33	10.77	10.33	8.68	9.60	9.65	10.52	11.23	13.26	13.44
R. WALKER	12.27	11.92	10.63	11.12	9.82	9.72	10.66	9.51	10.67	11.14	12.72	12.05	11.38
MEAN	11.85	11.35	11.17	10.57	10.11	9.78	7.98	8.71	9.57	10.03	11.01	11.23	11.97
STD. DEV	2.44	2.74	3.19	2.84	2.68	2.35	2.15	1.48	1.70	1.77	1.81	2.19	2.26
N	6.	6.	6.	6.	6.	5.	6.	6.	6.	6.	6.	6.	6.

PLASMA AMINO ACIDS

ASPARTAME SLU, DOSE = 100 MG/KG

VARIABLE IS TYROSINE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
K. SMITH	4.00	4.75	5.50	6.31	7.95	10.21	9.56	8.91	7.89	6.55	6.33	5.83	4.78
R. WALKER	6.34	7.41	8.57	10.31	11.30	12.84	9.74	9.91	9.00	9.68	8.57	8.56	7.51
R. WYATT	5.33	7.05	11.42	12.42	13.55	15.61	12.52	11.61	10.33	8.31	8.51	7.02	7.63
N. WYATT	4.23	3.79	4.76	5.64	7.46	*****	7.87	8.30	8.09	5.55	4.82	4.86	3.71
L. SMITH	5.47	4.91	4.76	4.45	4.69	7.03	8.41	9.08	8.39	7.23	7.15	6.45	6.37
J. FLATT	6.20	7.63	5.13	9.20	9.51	8.83	9.95	10.60	9.42	9.13	8.28	8.19	6.02
MEAN	5.27	5.92	7.36	8.06	9.08	10.77	10.34	9.75	8.62	7.74	7.28	6.87	6.05
STD. DEV	0.96	1.63	2.76	3.08	3.11	3.43	2.15	1.40	1.23	1.52	1.49	1.50	1.60
N	6.	6.	6.	6.	6.	5.	6.	6.	6.	6.	6.	6.	6.

TABLE XVI Plasma amino acid levels (umoles/dl) in normal subjects administered ASPARTAME (100mg/kg) in slurry form.

SEAPLE STUDY - INDIVIDUAL DATA
PLASMA AMINO ACIDS

ASPARTAMESLU, DOSE = 100 MG/KG

VARIABLE IS ARGININ

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	2 1/2 HR
R. WYATT	10.12	9.89	12.30	11.35	10.96	10.41	9.92	10.03	9.58	9.94	9.79	11.83	12.31	12.45
L. SMITH	6.38	6.93	6.80	7.45	7.37	7.09	6.18	7.26	7.67	6.32	6.91	7.30	6.30	8.46
J. FLATT	7.73	9.08	9.65	9.65	9.65	7.98	7.79	7.17	7.93	7.23	7.84	8.09	8.29	6.60
K. SMITH	7.93	5.25	5.28	5.15	5.38	5.21	5.32	4.77	4.51	4.89	4.82	4.46	4.54	4.10
R. WILKE	9.02	9.67	8.21	9.64	11.02	8.83	6.33	7.41	7.75	8.17	8.85	9.77	8.76	11.71
N. WYATT	7.51	5.85	6.15	5.48	7.23	*****	8.76	8.64	11.11	9.29	9.68	6.38	5.52	6.95
MEAN	8.11	7.78	8.66	8.13	8.61	7.90	7.38	7.55	8.09	7.73	7.98	7.80	8.30	8.38
SIC. DEV	1.30	2.03	2.59	2.49	2.31	1.94	1.75	1.75	2.21	1.82	1.90	2.48	2.69	3.20
N	6	6	6	6	6	5	6	6	6	6	6	6	6	6

SERIAL STUDY - INDIVIDUAL DATA
PUC AMINO ACIDS

TABLE XVII Erythorocyte amino acid levels (umoles/100 gm) in normal subjects administered ASPARTAME--(-100 mg/kg) in slurry form.

ASPARTAMESLU, DOSE = 100 MG/KG

VARIABLE IS TAURINE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
R. WYATT	2.81	4.21	2.1E	2.50	15.52	20.46	3.01	2.09	7.86	2.70	5.41	2.67	2.24	5.12
J. FLATT	2.92	2.43	11.6E	2.04	21.83	3.36	11.30	17.14	19.95	5.57	11.60	3.71	9.79	8.10
L. SMITH	2.53	4.41	3.18	3.14	2.96	5.33	3.35	3.35	3.04	4.37	*****	2.77	8.39	3.53
R. WALKER	2.61	3.46	2.03	0.95	1.34	1.24	1.44	1.36	4.08	1.38	1.36	1.32	5.37	2.91
N. WYATT	5.11	23.03	14.31	14.90	14.01	*****	4.10	5.14	17.31	10.20	5.01	3.37	5.36	4.54
K. SMITH	3.54	3.50	2.70	3.32	3.36	14.41	6.86	5.12	11.02	9.72	9.69	5.34	5.02	10.69
MEAN	3.25	6.34	6.01	4.55	9.84	8.97	5.01	5.70	10.54	5.66	6.61	3.20	6.38	5.80
STD. DEV	0.98	7.96	5.49	5.14	8.43	8.15	3.56	5.81	6.92	3.63	4.06	1.33	2.37	3.01
N	6.	6.	6.	6.	6.	5.	6.	6.	6.	6.	5.	6.	6.	6.

RBC AMINO ACIDS

ASPARTAMESLU, DOSE = 100 MG/KG

VARIABLE IS ASPARTAME

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
K. SMITH	24.18	24.35	24.61	26.47	26.24	24.02	24.15	21.46	21.55	20.72	21.24	22.84	24.82	21.56
R. WALKER	23.81	25.93	20.23	18.64	22.28	23.64	21.75	26.39	22.56	23.71	21.77	28.89	27.91	23.99
L. SMITH	21.42	24.94	25.53	23.73	25.45	22.16	25.04	24.71	24.40	22.74	25.29	25.33	28.91	23.79
J. FLATT	26.03	26.90	25.18	30.79	25.06	29.22	20.59	28.94	28.37	31.81	34.70	33.75	24.41	20.64
N. WYATT	13.16	13.40	16.48	14.01	16.21	*****	13.72	14.00	14.13	14.36	16.11	19.10	17.09	18.39
R. WYATT	19.01	18.12	21.01	16.75	23.82	24.65	24.62	21.52	28.40	19.99	24.33	24.59	21.03	22.55
MEAN	21.37	22.28	22.17	21.73	23.18	24.90	23.31	22.84	23.23	22.22	23.51	25.75	24.03	24.32
STD. DEV	4.79	5.34	3.57	6.36	3.69	2.64	5.53	5.20	5.30	5.72	6.18	5.06	4.40	4.65
N	6.	6.	6.	6.	6.	5.	6.	6.	6.	6.	6.	6.	6.	6.

SEARLE STUDY - INDIVIDUAL DATA

RBC AMINO ACIDS

TABLE XVII Erythrocyte amino acid levels (umoles/100 gm) in normal

ASPARTAME SLU, DOSE = 100 MG/KG subjects administered ASPARTAME (100 mg/kg) in slurry form.

VARIABLE IS THREONIN.

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
R. AYATT	6.62	5.60	6.73	5.68	11.01	11.16	10.84	8.41	10.30	6.15	5.47	5.40	5.93	7.04
N. AYATT	14.61	15.25	19.22	16.95	17.46	*****	16.36	15.39	17.57	12.10	12.63	10.36	13.86	16.69
J. FLATT	9.97	10.93	12.20	11.97	10.31	11.46	13.48	11.05	11.53	7.64	8.14	7.14	4.74	5.96
L. SMITH	9.72	11.13	11.92	11.73	11.32	12.58	10.72	10.38	9.79	10.34	8.45	7.75	9.54	11.65
K. SMITH	5.62	5.20	4.84	4.37	5.46	4.59	4.45	4.12	5.26	4.89	5.50	4.61	4.89	5.22
R. WALNE	7.02	8.55	5.91	6.10	5.98	6.33	6.54	6.15	5.88	5.71	5.48	5.19	7.43	8.33
MEAN	8.93	9.45	10.14	9.47	10.26	9.22	10.40	5.26	10.05	7.80	7.02	6.74	7.77	9.16
STD. DEV	3.20	3.79	5.43	4.88	4.35	3.53	4.37	3.57	4.45	2.95	2.84	2.15	3.50	4.33
N	6	6	6	6	6	5	6	6	6	6	6	6	6	6

RBC AMINO ACIDS

ASPARTAME SLU, DOSE = 100 MG/KG

VARIABLE IS SERINE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
R. WALKE	10.17	11.71	9.43	8.73	9.51	10.68	5.97	11.10	10.83	10.48	9.65	13.48	12.51	13.17
L. SMITH	11.42	13.25	13.87	13.53	13.33	16.97	13.41	12.84	12.45	12.69	11.55	11.08	12.72	13.70
K. SMITH	12.94	13.74	13.82	13.76	13.58	13.94	13.90	11.90	13.70	12.37	13.95	13.02	14.99	13.11
R. AYATT	8.01	7.86	8.34	6.85	10.74	11.41	11.41	8.17	12.57	8.46	8.65	8.78	7.92	8.54
J. FLATT	13.65	13.41	13.58	14.37	13.22	13.97	14.47	13.21	15.41	13.23	14.24	13.20	9.76	11.88
N. AYATT	11.61	13.41	17.30	15.05	14.15	*****	15.03	14.67	16.73	13.40	14.86	14.61	15.95	16.70
MEAN	11.30	12.23	12.79	12.05	12.42	13.35	13.03	11.93	13.61	11.95	12.15	12.36	12.31	12.87
STD. DEV	2.02	2.26	3.32	3.39	1.85	2.45	1.95	2.23	2.15	1.97	2.60	2.10	3.05	2.62
N	6	6	6	6	6	5	6	6	6	6	6	6	6	6

SEATTLE STUDY - INDIVIDUAL DATA
RBC AMINO ACIDS

TABLE XVII Erythrocyte amino acid levels (umoles/100 gms) in normal subjects-administered-ASPARTAME (100-mg/kg) in slurry form.

ASPARTAME SLU, DOSE = 100 MG/KG

VARIABLE IS GLUTAMAT

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
A. WYATT	30.51	33.47	34.10	34.61	31.04	***	26.10	24.75	35.05	31.11	31.51	21.15	34.11	24.11
J. FLATT	24.57	25.59	26.65	23.47	24.35	27.48	26.51	30.12	28.01	27.34	26.82	26.84	30.14	27.12
K. SMITH	26.44	25.67	28.65	24.58	26.72	25.85	24.21	28.30	24.94	26.37	28.85	28.26	28.05	26.30
L. SMITH	16.43	18.72	19.72	18.64	18.85	18.55	21.83	19.52	18.24	16.36	19.57	21.62	22.94	17.93
R. WALKER	21.94	26.83	18.80	17.72	20.20	21.88	21.37	25.78	22.34	21.65	22.14	25.23	29.51	30.10
R. WYATT	19.35	19.63	20.19	17.99	21.55	25.92	26.92	22.16	23.35	21.94	21.73	5.14	22.29	23.12
MEAN	22.79	25.05	24.69	22.83	23.87	23.94	26.16	26.77	25.40	24.23	25.12	23.71	27.32	26.54
STD. DEV	5.69	5.38	6.13	6.47	4.57	3.65	5.39	5.51	5.70	5.26	4.69	9.65	4.54	5.55
N	6.	6.	6.	6.	6.	5.	6.	6.	6.	6.	6.	6.	6.	6.

RBC AMINO ACIDS

ASPARTAME SLU, DOSE = 100 MG/KG

VARIABLE IS PROCLINE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
A. WYATT	5.63	6.58	7.13	6.22	10.07	9.94	7.97	6.13	7.85	5.25	5.74	5.67	5.37	6.12
K. SMITH	3.35	8.67	8.55	8.55	9.45	9.41	8.79	8.57	9.86	7.15	7.13	7.51	7.23	10.22
R. WALKER	3.08	10.47	7.00	7.09	8.92	9.13	9.03	9.38	7.58	7.90	6.20	5.55	5.31	10.90
L. SMITH	11.04	12.12	12.55	13.02	12.35	13.96	13.02	12.64	11.82	11.34	11.02	11.55	12.35	14.77
J. FLATT	9.23	9.76	10.53	13.31	10.73	11.23	12.76	11.12	12.58	12.44	12.78	12.63	9.17	10.53
A. WYATT	5.91	5.82	5.60	8.22	8.00	***	11.93	6.94	6.85	5.79	7.21	9.33	1.79	8.81
MEAN	8.03	8.90	9.30	9.48	9.93	10.73	10.59	9.13	9.47	8.31	8.35	9.39	8.38	10.82
STD. DEV	2.05	2.39	2.26	3.01	1.53	1.98	2.24	2.47	2.34	2.95	2.86	2.56	2.35	2.13
N	6.	6.	6.	6.	6.	5.	6.	6.	6.	6.	6.	6.	6.	6.

SEAPLE STUDY - INDIVIDUAL DATA
RBC AMINO ACIDS

TABLE XVII erythrocyte amino acid levels (umoles/100 gm) in normal subjects administered ASPARTAME (-100 mg/kg) in slurry form.

ASPARTAMESLU, DOSE = 100 MG/KG

VARIABLE IS GLYCINE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
J. FLATT	29.93	29.13	33.58	28.63	28.97	29.17	31.39	32.18	29.25	30.66	30.05	28.26	28.93	27.12
K. SMITH	31.51	32.45	31.22	32.51	31.96	35.05	32.35	32.26	32.87	29.79	32.47	29.25	31.91	33.30
L. SMITH	31.05	35.86	36.00	36.27	36.38	36.78	35.28	34.61	32.07	30.96	31.59	21.47	33.43	33.15
R. WALKER	32.01	25.06	29.22	25.24	30.51	34.19	28.57	30.26	30.40	29.57	28.08	24.01	24.10	32.21
N. WYATT	29.61	31.57	34.10	32.10	33.92	*****	32.81	34.37	31.00	26.58	26.10	24.16	27.41	29.91
A. WYATT	19.73	22.03	23.25	19.89	26.82	28.51	28.33	23.23	30.50	21.49	24.43	24.89	20.92	23.06
MEAN	28.58	29.35	31.29	29.11	31.43	32.74	31.47	31.15	31.01	28.17	28.79	27.01	28.12	29.79
STD. DEV	4.00	5.08	4.61	5.86	3.45	3.69	2.64	4.20	1.29	3.63	3.15	3.10	4.46	4.05
N	6.	6.	5.	6.	6.	5.	6.	6.	6.	6.	6.	6.	6.	6.

RBC AMINO ACIDS

ASPARTAMESLU, DOSE = 100 MG/KG

VARIABLE IS ALANINE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
R. WALKER	23.71	25.92	21.77	20.61	23.92	25.15	24.23	25.22	24.03	21.32	19.03	24.67	22.01	25.91
L. SMITH	26.25	30.01	31.77	30.66	30.92	43.40	36.79	35.57	31.61	27.40	25.89	24.78	25.70	28.27
R. WYATT	13.07	14.50	18.10	18.58	27.55	35.99	28.42	20.46	26.99	15.72	17.62	17.43	13.99	24.38
N. WYATT	20.68	23.92	31.11	29.70	31.01	*****	25.30	25.20	28.21	21.60	23.10	25.51	24.31	24.15
K. SMITH	13.11	18.36	17.07	20.70	22.66	28.58	27.97	25.97	24.86	21.23	20.65	17.63	17.93	18.45
J. FLATT	28.15	26.84	31.76	32.98	30.65	29.43	23.88	29.17	42.21	31.95	32.27	28.15	19.60	24.20
MEAN	21.66	23.26	25.40	25.54	27.78	33.31	29.58	26.93	27.98	23.19	23.09	23.02	20.59	24.33
STD. DEV	5.56	5.77	6.88	6.25	3.73	8.17	4.78	5.07	3.39	5.63	5.37	4.45	4.33	3.40
N	6.	6.	6.	6.	6.	5.	6.	6.	6.	6.	6.	6.	6.	6.

TABLE XVII Erythrocyte amino acid levels (umoles/dl) in normal subjects administered ASPARTAME (100-mg/kg) in slurry form.

ASPARTAMEL, CCSE = 100 MG/KG

VARIABLE IS CYSTINE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
L. SMITH	0-0	0-0	C-C	0-C	0-C	0-0	0-0	1-58	0-0	0-0	0-0	0-0	0-0	0-0
R. WYATT	0-0	0-0	0-0	0-0	0-0	0-0	0-0	C-C	0-0	0-0	0-0	0-0	0-0	0-0
R. WALKE	0-	C-	C-	0-	0-	0-	0-	1-	0-	0-	0-	0-	0-	0-
N. WYATT	0-0	0-0	0-0	0-0	0-0	0-0	0-0	0-0	0-0	0-0	0-0	0-0	0-0	0-0
K. SMITH	0-0	0-0	0-0	0-0	0-0	0-0	0-0	0-0	0-0	0-0	0-0	0-0	0-0	0-0
J. FLATT	0-0	0-0	0-0	0-0	0-0	0-0	0-0	0-0	0-0	0-0	0-0	0-0	0-0	0-0
MEAN	0-0	0-0	C-C	0-C	0-C	0-0	0-0	1-58	0-0	0-0	0-0	0-0	0-0	0-0
STD. DEV.	0-0	0-0	0-0	0-0	0-0	0-0	0-0	C-C	0-0	0-0	0-0	0-0	0-0	0-0
N	0-	C-	C-	0-	0-	0-	0-	1-	0-	0-	0-	0-	0-	0-

ASPARTAMEL, CGSE = 100 MG/KG

VARIABLE IS MENTION.

[illegible]

SEARLE STUDY - INDIVIDUAL DATA
REC AMINO ACIDS

TABLE XVII Erythrocyte amino acid levels (umoles/100 gm) in normal subjects administered ASPARTAME (100 mg/kg) in slurry form,

ASPARTAMESLU, DOSE = 100 MG/KG

VARIABLE IS ISOLEUCIN

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
R. WYATT	2.43	3.18	3.84	2.19	4.07	4.21	3.57	3.70	4.21	3.73	3.56	4.34	2.17	4.89
N. WYATT	2.36	2.48	3.20	2.41	2.69	*****	3.43	3.68	2.26	2.17	2.35	3.09	3.51	3.29
J. FLATT	3.77	3.89	3.75	3.75	3.15	2.75	2.82	3.84	3.28	3.51	4.07	3.86	3.03	4.31
R. WALKER	11.91	9.15	2.18	8.28	8.99	2.05	1.96	5.71	2.06	2.09	2.35	6.52	7.53	9.14
K. SMITH	1.82	2.00	1.68	1.54	1.49	1.24	1.04	0.73	1.59	1.36	1.56	1.57	1.93	2.77
L. SMITH	3.63	3.68	3.62	3.45	3.33	3.74	2.42	2.61	2.71	2.74	2.69	3.45	4.05	4.54
MEAN	4.32	4.06	3.04	3.60	3.95	2.80	2.61	3.28	2.68	2.60	2.76	3.80	3.70	4.72
STD. DEV	3.80	2.59	0.91	2.43	2.61	1.21	0.96	1.64	0.94	0.91	0.91	1.63	2.04	1.89
N	6.	6.	6.	6.	6.	5.	6.	6.	6.	6.	6.	6.	6.	6.

REC AMINO ACIDS

ASPARTAMESLU, DOSE = 100 MG/KG

VARIABLE IS LEUCINE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
K. SMITH	4.39	4.64	4.14	4.13	3.75	3.33	3.16	3.49	4.43	3.58	4.30	4.79	5.20	5.30
L. SMITH	7.85	8.06	8.17	7.72	7.54	3.03	6.58	6.30	6.37	6.43	7.04	8.42	9.52	10.44
N. WALKER	8.82	8.27	5.14	6.31	6.77	4.74	4.49	5.05	5.53	5.49	5.74	7.77	8.91	9.14
J. FLATT	9.25	9.67	9.25	8.43	9.26	6.95	6.26	7.78	10.19	10.73	9.17	11.94	9.56	12.57
R. WYATT	5.68	6.20	8.16	6.48	5.98	*****	6.15	6.00	5.92	5.33	6.30	7.51	8.25	6.35
N. WYATT	5.99	5.93	6.65	5.10	6.23	6.39	5.39	5.35	7.30	5.24	6.79	6.93	6.26	3.91
MEAN	7.00	7.13	6.52	6.36	6.57	4.89	5.25	5.97	6.62	6.21	6.56	7.89	7.95	8.97
STD. DEV	1.93	1.85	1.97	1.59	1.83	1.76	1.32	1.42	1.98	2.35	1.61	2.34	1.82	2.47
N	6.	6.	6.	6.	6.	5.	6.	6.	6.	6.	6.	6.	6.	6.

SEARLE STUDY - INDIVIDUAL DATA
RBC AMINO ACIDS

TABLE XVII Erythrocyte amino acid levels (umoles/100 gm) in normal subjects administered ASPARTAME-- (-100 mg/kg) in slurry form.

ASPARTAME SLU, DOSE = 100 MG/KG

VARIABLE IS TYROSINE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
R. WATY	3.15	5.04	7.97	7.82	10.32	13.08	11.97	10.10	11.56	6.65	7.44	6.44	4.93	5.32
J. FLATT	4.23	4.16	6.23	8.74	7.86	8.71	9.21	8.21	10.41	10.37	10.44	9.07	5.94	7.10
L. SMITH	3.20	3.29	3.22	3.05	3.12	10.37	7.63	8.07	8.02	4.72	4.50	4.60	4.77	4.02
K. SMITH	3.25	4.39	4.85	5.83	7.16	3.85	5.31	11.42	7.90	6.53	4.11	3.54	3.45	2.54
R. HAIKE	2.99	5.54	6.06	6.24	8.16	9.73	8.62	8.60	7.63	7.17	6.30	8.76	7.31	7.97
A. WATY	2.99	3.10	6.32	4.20	4.93	***	8.65	9.00	8.89	6.27	5.71	4.71	5.27	3.98
MEAN	3.47	4.32	6.11	5.59	7.03	10.16	9.32	5.23	9.08	6.96	6.42	6.14	5.28	5.32
STD. DEV	0.50	1.07	1.89	2.13	2.71	1.77	1.48	1.20	1.57	1.87	2.31	2.20	1.29	1.59
N	6.	6.	6.	6.	6.	5.	6.	6.	6.	6.	6.	6.	6.	6.

RBC AMINO ACIDS

ASPARTAME SLU, DOSE = 100 MG/KG

VARIABLE IS PHENYLAL

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
L. SMITH	2.20	2.18	2.31	2.31	3.14	17.26	15.33	15.12	12.12	5.58	4.07	3.84	2.47	2.11
N. WATY	3.11	3.00	8.41	6.61	8.61	***	12.73	12.40	9.99	6.31	5.01	3.00	4.52	3.51
R. HAIKE	4.11	6.27	20.50	20.91	35.30	20.56	15.17	12.56	10.31	8.33	6.13	7.41	4.59	5.12
K. SMITH	3.38	8.70	12.49	19.25	24.05	22.16	17.56	12.35	10.06	7.34	3.37	2.77	2.33	***
R. WATY	2.03	6.17	29.05	25.08	20.02	19.01	12.92	7.15	7.48	3.95	4.09	3.23	3.33	4.00
J. FLATT	4.32	7.28	16.52	15.52	13.42	14.91	15.60	14.92	14.99	13.10	10.50	8.47	5.53	6.40
MEAN	3.19	5.50	15.00	16.07	17.43	19.78	14.38	12.42	10.82	7.33	5.54	4.85	4.26	4.46
STD. DEV	0.95	2.52	5.45	10.87	11.56	2.33	1.31	2.38	2.52	3.16	2.62	2.43	1.53	1.95
N	6.	6.	6.	6.	6.	5.	6.	6.	6.	6.	6.	6.	6.	5.

SEARLE STUDY - INDIVIDUAL DATA
RBC AMINO ACIDS

TABLE XVII Erythrocyte amino acid levels (umoles/100 gm) in normal subjects administered-ASPARTMAE (-100 mg/kg) in-slurry form.

ASPARTAPESLU, DOSE = 100 MG/KG

VARIABLE IS URNITHIN

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
J. FLATT	16.05	15.24	11.52	12.19	12.18	15.09	15.09	12.44	11.62	12.56	13.84	12.92	9.40	11.69
K. SMITH	7.49	8.06	7.78	7.92	8.16	8.29	8.01	11.43	9.47	6.01	7.76	7.83	7.82	8.55
N. WALKER	9.10	8.34	8.99	12.25	8.68	*****	9.22	7.75	10.94	9.27	10.10	12.43	10.49	11.50
R. WALKER	6.76	7.70	8.63	7.38	8.65	9.11	7.83	7.42	10.11	6.55	7.93	6.59	7.15	6.54
R. FLATT	10.39	10.18	6.58	7.96	9.00	8.74	7.69	9.38	10.81	9.32	9.06	12.71	9.01	12.37
L. SMITH	17.52	13.60	14.76	19.72	15.09	17.22	15.49	16.70	13.98	18.04	18.32	12.21	14.74	14.93
MEAN	11.22	10.52	9.43	11.15	10.29	11.11	11.23	10.85	11.15	10.29	11.17	10.24	9.80	10.82
STD. DEV	4.52	3.18	3.08	4.09	2.76	3.74	4.93	3.48	1.57	4.46	4.15	2.73	2.78	2.71
N	6.	6.	5.	6.	6.	5.	6.	6.	6.	6.	6.	6.	6.	6.

RBC AMINO ACIDS

ASPARTAPESLU, DOSE = 100 MG/KG

VARIABLE IS LYSINE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
K. SMITH	6.06	6.05	4.27	6.13	5.68	4.35	6.25	6.62	6.25	6.13	5.56	5.53	6.19	5.36
R. WALKER	10.59	10.10	7.68	7.25	8.56	9.28	8.64	10.09	9.98	9.33	9.20	12.70	11.41	13.68
N. WALKER	10.16	3.99	10.00	12.17	10.11	*****	13.10	11.40	7.55	9.75	11.31	12.72	12.30	14.35
R. WALKER	8.36	10.54	9.45	8.26	9.01	11.02	10.51	9.61	11.30	8.60	10.23	10.11	8.75	10.59
J. FLATT	16.28	15.85	*****	13.52	13.05	12.77	15.30	14.40	14.10	14.21	15.98	14.85	10.91	13.74
L. SMITH	10.12	11.05	12.15	12.28	11.72	9.10	11.03	11.41	10.46	10.37	11.14	10.30	12.47	11.48
MEAN	10.34	10.43	8.71	10.04	9.69	9.30	10.80	10.59	10.03	9.74	10.57	11.12	10.45	11.52
STD. DEV	3.34	3.20	2.95	3.03	2.60	3.14	3.20	2.56	2.83	2.63	3.38	3.20	2.54	3.33
N	6.	6.	5.	6.	6.	5.	6.	6.	6.	6.	6.	6.	6.	6.

SEARLE STUDY - INDIVIDUAL DATA
RBC AMINO ACIDS

TABLE XVII Erythrocyte amino acid levels (umoles/100 gm) in normal subjects administered ASPARTAME (100 mg/kg) in slurry form.

VARIABLE IS HISTIDIN

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
L. SMITH	5.95	5.85	6.42	6.57	6.41	6.31	6.53	5.35	5.42	6.04	5.73	6.37	6.63
J. FLATT	9.40	9.02	8.95	8.30	7.62	8.90	8.28	8.01	8.09	9.03	8.55	6.12	8.27
R. WYATT	8.11	9.10	8.95	9.38	8.69	10.67	9.16	10.25	8.21	9.75	10.77	10.45	11.04
L. SMITH	6.14	6.93	6.81	6.08	5.95	7.31	6.25	7.60	5.57	6.98	6.69	5.52	6.91
R. WYATT	6.73	7.17	5.10	4.81	5.37	5.40	6.63	5.88	5.57	5.42	7.99	7.12	8.37
K. SMITH	6.80	7.29	5.30	7.50	7.41	7.31	7.71	6.56	6.53	6.14	6.07	6.27	6.37
MEAN	7.19	7.56	6.53	7.17	6.91	7.50	7.44	7.27	6.64	7.31	7.63	6.97	8.00
STD. DEV	1.32	1.27	1.52	1.62	1.22	1.90	1.15	1.77	1.24	1.67	1.89	1.78	1.79
N	6.	6.	5.	6.	6.	6.	6.	6.	6.	6.	6.	6.	6.

RBC AMINO ACIDS

ASPARTAMESLU, DOSE = 100 MG/KG

VARIABLE IS ARGinine

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
J. FLATT	1.22	0.69	1.16	0.99	1.15	1.03	1.51	2.24	1.09	1.41	0.94	1.31	2.17
R. WYATT	0.93	1.00	1.16	3.76	0.61	1.93	2.54	2.21	1.79	1.13	1.65	2.04	0.56
R. WYATT	0.99	4.11	3.96	3.76	3.41	4.03	3.88	1.48	3.21	2.68	4.24	4.93	4.25
L. SMITH	0.44	0.44	0.26	0.26	0.26	0.60	0.40	0.30	0.59	0.40	1.01	1.24	0.83
K. SMITH	1.70	2.06	2.62	2.44	1.82	1.49	2.18	1.76	1.25	1.81	1.41	2.23	1.37
R. WYATT	2.71	2.07	1.60	1.70	2.03	2.65	3.31	1.84	2.11	1.83	3.51	2.93	2.32
MEAN	2.33	1.99	1.92	1.62	1.80	1.95	2.30	1.64	1.67	1.55	2.13	2.20	1.98
STD. DEV	2.41	1.34	1.42	1.31	1.86	1.25	1.25	0.72	0.72	0.76	1.40	1.37	1.27
N	6.	5.	5.	6.	5.	6.	6.	6.	6.	6.	6.	6.	6.

SAMPLE STUDY - INDIVIDUAL DATA
PLASMA AMINO ACIDS

TABLE XVIII Plasma amino acid levels (umoles/dl) in normal adults administered ASPARTAME at 150 mg/kg body weight.

VARIABLE IS LAURINE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
ANN KARE	4.19	4.11	3.47	*****	3.55	5.08	4.79	4.47	3.72	3.94	*****	3.51	4.30
LARA MU	8.11	8.34	7.83	7.06	7.11	7.93	7.77	7.81	7.69	7.03	7.29	5.37	5.19
M PORE	4.63	4.04	4.04	3.81	3.74	4.40	4.56	4.50	4.14	4.17	2.61	6.37	3.44
KEN FAYE	7.70	6.35	6.05	7.33	5.51	5.93	6.30	6.03	6.12	6.11	5.82	5.52	3.94
KEAT CUI	3.55	3.30	3.00	3.42	3.41	3.79	2.08	3.60	3.33	3.93	3.54	5.09	5.13
ANN KARE	4.11	3.87	3.86	4.78	3.97	4.56	4.38	4.49	4.57	4.53	5.37	4.25	4.50
MEAN	5.38	5.00	4.81	5.28	4.61	5.28	5.26	5.15	4.93	4.93	4.93	4.82	4.34
STD. DEV	1.99	1.94	1.76	1.82	1.53	1.48	1.52	1.52	1.66	1.32	1.86	1.20	0.72
N	6.	6.	6.	5.	6.	6.	6.	6.	6.	6.	5.	6.	6.

PLASMA AMINO ACIDS

ASPARTAME • DOSE = 150 MG/KG

VARIABLE IS ASPART

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
ANN KARE	0.11	0.15	0.48	0.35	0.36	0.47	0.13	0.10	0.14	0.11	0.15	0.10	0.20
KEAT CUI	0.31	0.71	2.24	1.07	0.47	0.91	0.36	0.26	0.15	0.10	0.19	0.17	0.13
M PORE	0.33	0.36	0.65	0.32	0.55	0.73	0.44	0.22	*****	*****	*****	0.74	0.12
LARA MU	0.21	0.63	0.85	0.38	0.38	0.32	0.26	0.18	0.32	0.28	0.25	0.20	0.19
KEN FAYE	0.41	1.60	1.38	1.15	0.77	1.66	0.98	0.43	0.43	0.37	0.39	0.35	0.12
ANN KARE	0.27	0.47	0.43	*****	0.29	0.66	0.64	0.28	0.13	0.11	0.28	0.33	0.14
MEAN	0.27	0.65	1.00	0.65	0.47	0.79	0.37	0.24	0.23	0.20	0.24	0.29	0.15
STD. DEV	0.10	0.50	0.70	0.42	0.17	0.47	0.36	0.11	0.13	0.12	0.10	0.19	0.04
N	6.	6.	6.	5.	6.	6.	6.	6.	5.	5.	5.	6.	6.

SEARLE STUDY - INDIVIDUAL DATA
PLASMA AMINO ACIDS

TABLE XVIII Plasma amino acid levels (umoles/dl) in normal adults
administered ASPARTAME at 150 mg/kg body weight.

ASPARTAME • DOSE = 150 MG/KG

VARIABLE IS THREON

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
ANN KASE	13.14	18.64	16.24	15.20	15.58	16.97	12.11	13.04	14.14	*****	14.55	14.95	17.22
KEN HAYE	13.66	12.62	12.07	10.72	11.50	11.33	15.54	10.83	9.89	9.12	10.01	9.68	13.01
WACKER	13.87	14.64	16.10	15.90	14.46	16.34	14.41	13.95	14.08	13.88	14.26	13.97	14.79
LACRA PU	11.15	13.70	12.06	10.90	10.71	10.97	10.90	10.25	5.50	9.80	10.43	8.54	10.10
KEN CUI	12.83	11.90	12.81	12.62	12.09	11.30	10.30	9.56	10.45	9.92	11.74	10.27	12.59
JEN WISP	12.39	11.47	12.36	11.46	11.54	11.37	10.04	10.08	9.30	9.11	9.37	9.13	10.67
MEAN	13.68	13.83	13.61	12.32	12.66	12.60	12.55	11.23	11.25	10.37	11.73	11.11	13.10
STD. DEV	2.40	2.63	2.00	2.13	1.91	2.13	2.89	2.31	1.75	2.00	2.22	2.67	2.61
N	6.	6.	6.	5.	6.	6.	6.	6.	6.	5.	6.	6.	6.

PLASMA AMINO ACIDS

ASPARTAME • DOSE = 150 MG/KG

VARIABLE IS SERINE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
JEN WISP	10.18	10.46	11.25	11.44	11.80	11.02	10.66	10.50	10.07	9.44	9.71	10.67	11.35
KEN CUI	10.39	10.63	11.67	11.21	11.26	10.87	9.80	10.01	10.19	10.08	11.56	9.93	10.93
LACRA PU	13.54	17.27	17.41	16.50	16.97	16.26	15.90	15.40	13.78	12.97	14.01	11.61	13.73
WACKER	7.60	9.23	8.90	8.70	8.13	10.31	8.51	8.70	9.22	9.25	9.86	9.65	9.49
KEN HAYE	11.07	12.10	12.11	10.73	10.82	10.96	9.74	10.78	11.49	11.20	11.44	11.63	12.44
ANN KASE	9.64	9.56	8.37	*****	7.39	10.22	10.42	9.11	10.00	*****	10.61	11.84	10.92
MEAN	10.50	11.37	11.72	11.72	11.15	11.61	10.70	10.75	10.79	10.59	11.26	10.91	11.48
STD. DEV	1.99	3.16	3.22	2.88	3.28	2.30	2.24	2.41	1.64	1.53	1.53	2.04	1.45
N	6.	6.	6.	5.	6.	6.	6.	6.	6.	5.	6.	6.	6.

SEARLE STUDY - INDIVIDUAL DATA
PLASMA AMINO ACIDS

TABLE XVIII Plasma amino acid levels (umoles/dl) in normal adults
administered ASPARTAME at 150 mg/kg body weight.

ASPARTAME , DOSE = 150 MG/KG

VARIABLE IS ASPARAG

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
ANN KADE	7.86	7.63	5.81	*****	5.95	6.52	7.83	6.41	6.19	6.18	*****	11.61	6.07
M MCKEE	5.49	3.72	4.70	4.81	4.26	5.86	6.14	7.26	5.93	6.38	7.27	6.71	8.48
LAURA MO	9.76	11.26	12.44	10.44	11.15	10.47	4.87	8.43	10.31	5.14	7.24	5.68	8.16
KEN HAYE	2.66	3.92	4.52	5.16	5.28	5.83	3.70	6.42	4.10	3.14	4.48	3.50	3.65
JEN WISEP	10.00	7.54	13.29	9.03	8.89	8.98	8.82	5.51	6.43	5.69	6.85	5.57	7.70
KENT CUI	7.17	10.56	9.58	8.35	7.82	8.31	8.32	7.03	6.75	6.90	6.32	10.63	7.56
MEAN	7.16	7.50	8.46	7.56	7.10	7.67	6.81	6.85	6.63	5.57	6.43	7.94	8.76
STD. DEV	2.77	3.26	3.95	2.47	2.55	1.85	2.05	1.00	2.03	1.33	1.16	3.17	1.77
N	6	6	6	5	6	6	6	6	6	6	5	6	6

PLASMA AMINO ACIDS

ASPARTAME , DOSE = 150 MG/KG

VARIABLE IS GLUTAMIN

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
KENT CUI	64.00	57.23	61.62	63.15	60.20	66.39	65.79	61.32	60.06	64.02	58.83	62.84	70.15
JEN WISEP	70.19	62.03	64.62	65.11	65.37	63.75	64.86	62.91	64.60	62.30	66.06	66.54	63.60
KEN HAYE	76.26	71.46	69.52	57.76	58.26	63.20	65.51	48.05	62.64	60.74	66.66	75.91	71.24
LAURA MO	66.47	70.42	68.65	67.42	71.60	74.63	67.35	66.37	65.20	65.85	69.55	57.97	65.52
M MCKEE	44.41	49.80	50.86	51.09	48.16	54.95	51.05	46.75	48.43	60.08	54.96	59.44	61.08
ANN KADE	48.00	47.31	41.25	*****	40.01	39.21	44.74	56.76	50.20	52.02	*****	55.24	47.22
MEAN	61.55	59.72	59.43	60.51	57.27	61.29	55.88	58.15	58.72	60.11	62.60	61.06	63.47
STD. DEV	12.64	10.16	11.16	6.55	11.50	12.59	9.53	10.67	7.60	6.93	2.37	7.57	7.98
N	6	6	6	5	6	6	6	6	6	5	6	6	6

SEARLE STUDY - INDIVIDUAL DATA
PLASMA AMINO ACIDS

TABLE XVIII Plasma amino acid levels (umoles/dl) in normal adults
ASPARTAME , DOSE = 150 MG/KG administered ASPARTAME at 150 mg/kg body weight.

VARIABLE IS GLUTAMATE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
WACKER	4.11	2.50	3.31	2.97	5.45	6.05	5.67	2.50	2.35	2.28	1.33	1.70	2.21	1.59
ANN KARE	3.19	4.01	4.16	*****	3.98	4.44	4.56	8.15	4.48	5.02	*****	2.00	1.51	2.48
LAURA MU	2.70	3.41	6.67	6.52	7.04	4.75	4.69	1.80	4.53	3.00	1.95	1.62	1.24	1.77
KEN HAYE	5.47	10.52	11.24	10.25	7.57	12.07	11.28	4.11	9.24	9.63	9.25	7.95	7.37	5.59
JEN WISP	1.33	2.81	6.38	6.86	7.53	6.83	3.73	4.44	3.29	2.45	2.15	1.48	3.69	2.41
KENT CUI	3.81	6.29	8.85	8.75	7.35	9.18	9.22	5.65	5.84	3.50	4.14	3.62	3.60	3.03
MEAN	3.43	4.92	6.77	7.08	6.49	7.23	5.53	4.44	5.02	4.33	2.76	3.66	3.27	2.81
STC. DEV	1.40	3.05	2.54	2.75	1.47	2.93	3.01	2.28	2.40	2.78	3.24	2.52	2.26	1.46
N	6.	6.	6.	5.	6.	6.	6.	6.	6.	6.	5.	6.	6.	6.

PLASMA AMINO ACIDS

ASPARTAME , DOSE = 150 MG/KG

VARIABLE IS PROLINE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
KENT CUI	21.74	22.13	27.60	27.72	24.54	29.26	28.66	23.91	20.68	21.51	19.69	21.64	19.30	22.62
JEN WISP	27.92	23.45	33.54	34.21	33.44	33.73	31.48	25.34	24.85	22.11	22.83	22.74	22.14	23.53
KEN HAYE	21.69	25.53	26.36	24.30	23.94	26.60	25.67	16.51	16.76	16.43	14.74	14.31	14.74	31.06
ANN KARE	16.64	18.16	16.29	*****	16.59	17.41	18.82	19.26	14.61	13.15	*****	12.81	12.53	20.12
WACKER	9.71	14.44	14.51	13.85	13.23	15.87	13.65	14.71	12.87	12.25	12.46	13.56	11.50	14.72
LAURA MU	20.11	24.25	27.91	26.14	26.19	26.18	23.80	22.49	19.62	16.64	19.33	18.13	14.08	14.63
MEAN	19.63	22.16	24.42	25.24	23.00	24.87	24.51	20.39	18.27	17.01	17.81	17.20	15.55	21.18
STC. DEV	6.08	5.12	7.49	7.38	7.18	6.97	5.18	4.24	4.40	4.11	4.16	4.29	3.93	6.21
N	6.	6.	6.	5.	6.	6.	6.	6.	6.	6.	5.	6.	6.	6.

SEPARATE STUDY - INDIVIDUAL DATA PLASMA AMINO ACIDS

TABLE XVIII Plasma amino acid levels (umoles/dl) in normal adults administered ASPARTAME at 150 mg/kg body weight.

ASPARTAME • DOSE = 150 MG/KG

VARIABLE IS CITRULLIN

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
MCKEE	1.81	1.55	1.48	1.21	1.17	0.32	1.10	1.33	1.74	1.93	2.00	2.12	2.11	2.57
ANN KARE	1.25	1.00	0.60	*****	0.28	0.19	0.15	1.51	0.79	0.99	*****	1.07	1.13	0.94
LALRA PL	1.54	2.73	2.07	1.80	1.55	1.54	1.85	2.04	3.03	2.71	2.57	3.00	2.19	3.20
KEN HAYE	2.59	2.21	1.58	1.67	1.53	1.35	1.19	0.67	1.94	2.30	2.24	2.30	2.12	2.33
KENT CUI	3.64	3.26	2.69	2.03	0.60	1.32	1.67	1.58	2.55	2.73	2.32	3.27	2.50	3.43
JEN WISP	3.72	3.30	3.07	2.51	2.65	2.40	2.40	2.75	3.23	3.13	3.16	2.99	3.30	3.51
MEAN	2.42	2.37	1.98	1.84	1.31	1.35	1.40	1.72	2.21	2.31	2.56	2.47	2.28	2.65
STD. DEV	1.07	0.95	0.88	0.48	0.84	0.77	0.79	0.72	0.91	0.76	0.46	0.81	0.71	0.97
N	6.	6.	6.	5.	6.	6.	6.	6.	6.	6.	5.	6.	6.	6.

PLASMA AMINE ACIDS

ASPARTAME • DOSE = 150 MG/KG

VARIABLE IS GLYCINE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
KENT CUI	20.30	18.32	18.17	16.67	16.04	16.21	16.21	15.85	15.29	16.53	15.45	17.03	15.62	20.97
JEN WISP	22.55	22.44	20.99	19.18	19.64	18.49	19.27	19.14	19.49	19.32	15.83	16.47	16.87	27.16
KEN HAYE	19.70	18.15	16.89	14.86	15.42	14.42	12.95	8.25	12.91	14.15	13.41	14.62	14.95	19.00
ANN KARE	12.69	11.16	8.97	*****	8.10	7.99	5.05	12.71	8.50	7.90	*****	9.08	10.54	11.01
MCKEE	14.46	13.59	13.63	13.02	11.08	11.16	12.29	12.91	12.31	12.09	13.54	14.93	13.91	17.17
LALRA PL	38.43	41.39	36.34	32.42	31.25	31.25	32.85	34.70	37.90	34.74	33.80	40.86	32.52	40.01
MEAN	21.37	20.84	19.16	19.23	16.92	16.55	17.10	17.27	17.73	17.46	16.41	18.58	17.33	22.55
STD. DEV	9.16	10.91	9.37	7.72	8.10	3.08	8.47	5.28	10.52	9.32	8.67	11.13	7.72	10.03
N	6.	6.	6.	5.	6.	6.	6.	6.	6.	6.	5.	6.	6.	6.

SAMPLE STUDY - INDIVIDUAL DATA
PLASMA AMINO ACIDS

TABLE XVIII Plasma amino acid levels (umoles/dl) in normal adults
administered ASPARTAME at 150 mg/kg body weight.

ASPARTAME , DOSE = 150 MG/KG

VARIABLE IS ALANINE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
W. MCKEE	36.98	37.20	46.35	47.62	48.62	58.27	60.61	48.54	42.27	39.63	37.22	35.73	33.15	24.67
KEN HAYE	45.15	50.55	55.75	51.37	55.35	59.30	56.64	38.48	36.85	34.99	31.08	31.70	30.84	43.35
ANN KARE	31.98	36.24	34.64	*****	36.80	38.48	43.17	35.37	29.32	23.29	*****	26.11	26.06	36.71
LAURA MC	35.60	50.80	64.22	63.26	67.01	69.60	64.83	56.37	40.23	37.29	38.97	42.73	34.25	40.85
KENT CUI	34.96	32.75	49.34	62.84	65.19	70.57	69.09	51.37	36.95	39.56	34.25	33.93	33.23	40.67
JUN ATSP	43.61	47.06	63.08	68.67	66.53	70.64	64.91	46.95	43.86	37.78	36.12	36.00	32.41	51.13
MEAN	37.36	42.43	52.23	58.75	57.25	61.14	55.92	46.18	38.26	35.42	35.53	35.43	31.67	41.24
STD. DEV	6.46	7.96	11.19	8.86	12.81	12.46	9.23	7.91	5.20	6.18	3.02	6.02	2.98	5.79
N	6.	6.	6.	5.	6.	6.	6.	6.	6.	6.	5.	6.	6.	6.

PLASMA AMINO ACIDS

ASPARTAME , DOSE = 150 MG/KG

VARIABLE IS ALANINE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
JUN ATSP	1.31	1.47	1.73	1.52	1.65	1.68	1.65	1.38	1.21	1.32	1.33	1.50	1.43	1.60
KENT CUI	2.85	2.78	3.03	2.83	2.83	2.71	2.63	2.44	2.42	2.53	2.52	3.42	2.61	2.80
ANN KARE	0.83	0.84	0.60	*****	0.60	0.65	0.71	0.58	0.43	1.06	*****	0.96	1.00	1.67
W. MCKEE	0.94	0.93	1.04	1.02	0.97	0.94	1.01	0.92	0.92	0.94	0.87	1.19	0.87	0.61
LAURA MC	1.78	2.09	1.52	1.85	1.81	1.84	1.86	1.82	1.83	1.73	1.66	1.45	1.23	1.10
KEN HAYE	2.08	2.05	1.94	1.80	1.88	1.81	1.69	1.12	1.74	1.92	1.86	2.05	2.07	1.97
MEAN	1.63	1.69	1.70	1.81	1.60	1.61	1.59	1.45	1.50	1.58	1.65	1.76	1.61	1.61
STD. DEV	0.77	0.75	0.83	0.66	0.70	0.73	0.68	0.56	0.63	0.60	0.61	0.89	0.64	0.75
N	6.	6.	6.	5.	5.	6.	6.	6.	6.	6.	5.	6.	6.	6.

TABLE XVIII - INDIVIDUAL DATA
PLASMA AMINO ACIDS

TABLE XVIII Plasma amino acid levels (umoles/dl) in normal adults administered ASPARTAME at 150 mg/kg body weight.

ASPARTAME , DOSE = 150 MG/KG

VARIABLE IS VALINE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
Laura PL	16.33	19.10	17.55	15.55	14.35	14.23	14.22	14.80	15.34	14.39	15.74	15.21	14.68	15.81
Ann Kase	23.10	22.52	18.74	*****	17.49	16.84	16.27	16.88	18.33	19.31	*****	19.57	20.42	24.25
Kent Cui	25.13	24.40	25.26	23.12	20.91	20.21	19.36	18.21	20.58	21.47	22.25	24.47	20.76	25.39
Monkec	11.91	12.13	12.61	11.84	10.50	10.53	11.03	10.73	10.90	11.90	13.44	13.22	14.25	13.93
Kent Hays	25.43	25.05	23.61	20.65	20.99	20.81	19.20	17.22	19.92	20.74	20.48	21.52	22.27	23.74
Jon Kisp	22.94	21.74	23.11	20.51	21.04	19.37	19.54	18.68	19.34	18.90	19.16	19.67	20.84	17.69
MEAN	20.82	20.82	20.18	18.24	17.58	16.87	16.89	16.09	17.49	17.87	18.27	19.49	18.90	20.97
STD. DEV	5.39	4.76	4.73	4.55	4.22	3.85	3.46	2.93	3.63	3.71	3.60	3.72	3.43	5.96
N	6.	6.	6.	5.	5.	6.	6.	6.	6.	6.	5.	6.	6.	6.

PLASMA AMINO ACIDS

ASPARTAME , DOSE = 150 MG/KG

VARIABLE IS CYSTINE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
Jon Kisp	9.13	9.52	10.22	9.56	10.16	9.56	9.75	9.55	9.33	9.42	9.62	9.07	9.61	8.43
Laura PL	7.29	10.42	8.17	7.87	9.01	7.50	7.85	7.20	8.02	7.15	7.16	11.19	8.71	9.92
Monkec	7.51	7.13	7.26	7.73	7.37	7.90	8.02	5.63	5.98	6.30	7.43	5.46	7.48	7.79
Kent Cui	10.53	10.85	10.62	10.36	9.65	10.49	10.77	9.68	8.99	9.47	9.33	8.78	9.27	9.61
Ann Kase	10.96	11.20	9.83	*****	9.33	8.20	9.80	9.01	9.34	9.19	*****	7.91	5.43	9.79
Kent Hays	10.35	10.85	10.90	8.25	9.15	9.60	9.71	9.14	9.06	9.64	9.41	9.23	10.29	10.55
MEAN	9.31	9.99	9.50	8.84	9.04	8.87	9.32	8.53	8.45	8.58	8.39	8.61	9.13	9.18
STD. DEV	1.60	1.52	1.46	1.23	0.92	1.17	1.14	1.29	1.31	1.33	1.05	1.88	0.96	1.00
N	6.	6.	6.	5.	6.	6.	6.	6.	6.	6.	5.	6.	6.	6.

SERIAL STUDY - INDIVIDUAL DATA
PLASMA AMINO ACIDS

TABLE XVIII Plasma amino acid levels (umoles/dl) in normal adults administered ASPARTAME at 150 mg/kg body weight.

ASPARTAME, DOSE = 150 MG/KG

VARIABLE IS METHION

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
AAA KAGE	2.21	2.29	1.24	*****	1.66	1.53	2.04	2.33	1.67	*****	1.83	1.94	2.53
KEN HAYE	3.10	3.24	3.11	2.77	2.39	2.54	1.44	2.37	2.46	2.39	2.43	2.53	3.70
LAURA PL	2.03	2.53	2.24	1.91	1.81	1.58	1.91	1.86	1.79	1.97	2.35	2.03	2.75
KENT CUI	3.62	2.76	3.58	2.54	2.10	2.22	2.09	2.03	2.29	2.48	2.97	2.34	2.83
M MCKEE	1.50	1.76	1.87	1.69	1.39	1.27	1.56	1.41	1.57	2.07	2.06	2.44	2.38
JON WISP	2.44	2.41	3.53	2.24	2.34	2.09	2.02	2.13	2.03	2.16	2.26	2.30	2.95
MEAN	2.49	2.50	2.70	2.23	2.03	1.87	1.84	1.77	2.05	2.00	2.29	2.33	3.03
STD. DEV	0.75	0.49	0.52	0.44	0.54	0.49	0.31	0.27	0.30	0.32	0.36	0.24	0.60
N	6.	6.	6.	5.	6.	6.	6.	6.	6.	6.	6.	6.	6.

PLASMA AMINO ACIDS

ASPARTAME, DOSE = 150 MG/KG

VARIABLE IS ISOLEUCO

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
JON WISP	6.15	5.69	6.88	4.56	5.03	3.86	3.57	4.09	4.16	4.22	4.67	5.31	5.58
KENT CUI	7.88	7.35	7.43	6.31	5.74	4.70	4.10	4.77	5.23	5.50	6.42	5.61	7.45
M MCKEE	3.83	3.63	3.82	3.21	2.52	2.24	2.53	2.76	3.43	4.07	4.23	5.00	4.20
KEN HAYE	7.16	6.71	5.55	4.97	4.84	4.24	3.49	4.25	4.81	4.56	5.45	5.75	9.32
LAURA PL	5.73	6.54	5.88	4.85	4.45	3.78	3.81	4.22	3.83	5.90	4.73	3.90	5.36
AAA KAGE	5.45	5.00	3.84	*****	3.13	2.65	2.86	3.57	4.08	*****	4.21	4.77	6.91
MEAN	6.03	5.82	5.64	4.79	4.29	3.58	3.39	3.94	4.26	4.53	4.95	5.07	6.31
STD. DEV	1.41	1.35	1.51	1.11	1.23	0.95	0.59	0.70	0.66	0.68	0.85	0.57	1.53
N	6.	6.	6.	5.	6.	6.	6.	6.	6.	5.	6.	6.	6.

SEARLE STUDY - INDIVIDUAL DATA
PLASMA AMINO ACIDS

ASPARTAME , DOSE = 150 MG/KG

VARIABLE IS LEUCINE

TABLE XVIII Plasma amino acid levels (μ moles/dl) in normal adults
adults administered ASPARTAME at 150 mg/kg body weight.

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
ANN KADE	11.38	10.68	8.34	*****	6.57	6.30	6.30	8.02	8.19	9.31	*****	10.85	11.73	14.26
LACRA NU	9.47	11.09	9.37	7.28	6.48	5.83	5.86	7.21	8.31	7.98	9.07	11.63	9.87	10.92
M MCKEE	7.30	7.29	7.63	6.46	5.01	4.45	5.33	5.15	6.27	7.73	9.37	10.09	10.92	10.47
KEN PAYE	15.91	15.19	13.77	11.89	11.53	10.26	8.50	6.24	10.26	11.67	12.12	13.35	13.33	13.45
KENT CUI	15.99	15.27	15.44	13.14	12.13	9.95	8.75	8.45	11.33	13.10	13.68	15.36	14.24	16.24
JEN WISP	13.32	12.37	13.25	9.95	10.63	8.72	8.63	8.25	10.27	10.51	11.14	12.07	13.01	11.43
MEAN	12.23	11.98	11.30	9.77	8.79	7.59	7.23	7.23	9.10	10.05	11.12	12.31	12.29	13.64
STD. DEV	3.51	3.03	3.26	2.85	3.00	2.39	1.56	1.42	1.85	2.11	1.99	2.06	1.73	3.24
N	6.	6.	6.	5.	6.	6.	6.	6.	6.	6.	5.	6.	6.	6.

PLASMA AMINO ACIDS

ASPARTAME , DOSE = 150 MG/KG

VARIABLE IS TYROSINE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
JEN WISP	8.07	5.80	9.12	11.13	10.60	13.88	12.71	10.57	9.52	8.42	7.52	7.03	6.37	5.01
KENT CUI	6.24	7.13	9.15	10.24	10.77	12.61	13.84	9.78	11.24	10.67	8.94	8.59	7.59	7.32
KEN PAYE	7.59	8.84	5.43	8.72	5.50	11.10	12.28	8.07	11.88	11.35	9.72	9.29	8.85	10.41
ANN KADE	4.75	5.50	5.50	*****	5.76	6.40	8.12	11.42	8.29	6.61	*****	5.31	5.03	5.75
LACRA NU	7.15	6.21	7.85	9.00	10.55	11.25	12.30	10.40	9.06	7.88	7.31	8.32	6.32	5.09
M MCKEE	1.53	2.84	3.57	3.77	4.37	5.41	6.94	6.51	6.17	5.62	5.59	4.91	4.71	3.48
MEAN	5.89	6.07	7.44	8.58	8.59	10.11	11.03	5.46	9.36	8.42	7.82	7.24	6.50	6.18
STD. DEV	2.44	1.98	2.39	2.87	2.80	3.42	2.80	1.83	2.07	2.24	1.60	1.81	1.55	2.42
N	6.	6.	6.	5.	6.	6.	6.	6.	6.	6.	5.	6.	6.	6.

SEATTLE STUDY - INDIVIDUAL DATA
PLASMA AMINO ACIDS

TABLE XVIII Plasma amino acid levels (umoles/dl) in normal adults administered ASPARTAME at 150 mg/kg body weight.

ASPARTAME , DOSE = 150 MG/KG

VARIABLE IS PHENYLAL

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
JCN WISPE	2.98	18.26	27.72	19.69	22.18	39.00	40.44	27.10	20.49	15.43	12.19	10.29	3.05	5.44
ANN KARE	8.60	15.73	17.11	*****	19.04	25.25	31.93	29.04	17.19	9.96	*****	7.03	6.21	6.06
LAURA MU	7.37	20.69	41.75	33.83	36.66	36.54	27.86	21.45	13.12	10.56	9.24	10.34	7.55	5.40
KENT CUI	7.13	12.11	20.55	31.91	26.58	33.43	35.60	22.02	15.13	13.21	10.11	5.61	8.14	7.01
KEN HAYE	7.41	25.61	32.28	32.77	34.62	49.98	53.90	24.33	24.98	19.11	15.24	13.48	12.29	9.05
JCN WISPE	6.36	10.18	21.50	21.68	19.89	24.77	21.02	13.42	10.21	8.63	7.49	6.99	6.49	4.63
MEAN	6.72	18.10	28.58	27.97	26.64	34.83	35.12	22.73	16.85	12.97	10.85	9.62	8.11	6.26
STU. DEV	1.93	6.85	8.77	6.73	7.41	9.43	11.34	5.44	5.30	4.12	2.98	2.43	2.18	1.58
N	6	6	6	5	6	6	6	6	6	6	5	6	6	6

PLASMA AMINO ACIDS

ASPARTAME , DOSE = 150 MG/KG

VARIABLE IS LEUCITEN

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
JCN WISPE	4.99	5.09	6.64	6.21	6.15	6.84	5.71	5.21	5.62	5.34	5.44	5.08	5.73	5.70
ANN KARE	4.40	3.80	3.06	*****	3.03	3.50	4.00	6.18	3.91	3.73	*****	4.40	4.22	4.33
LAURA MU	4.47	4.72	4.91	4.32	4.54	4.70	4.94	5.06	4.90	4.55	4.21	6.55	5.79	5.00
KEN HAYE	7.18	6.98	7.24	6.76	6.63	6.54	6.62	3.02	5.83	7.12	7.01	6.71	7.42	10.17
KENT CUI	7.74	7.79	8.42	7.93	6.54	7.86	7.49	7.69	6.47	6.83	6.06	7.10	7.20	8.23
M WISPE	2.75	3.25	3.51	3.42	3.17	3.51	3.80	3.69	2.75	2.93	4.26	4.24	4.32	4.82
MEAN	5.25	5.27	5.70	5.75	5.01	5.52	5.43	5.14	4.92	5.04	5.64	5.68	5.80	6.51
STU. DEV	1.27	1.78	2.07	1.84	1.68	1.25	1.46	1.68	1.36	1.66	1.18	1.26	1.39	2.20
N	6	6	6	5	6	6	6	6	6	6	5	6	6	6

SEARLE STUDY - INDIVIDUAL DATA
PLASMA AMINO ACIDS

TABLE XVIII Plasma amino acid levels (umoles/dl) in normal adults administered ASPARTAME at 150 mg/kg body weight.

ASPARTAME , DOSE = 150 MG/KG

VARIABLE IS LYSINE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
KENT CUI	24.79	23.09	24.67	22.14	18.83	20.11	20.41	21.00	22.63	22.21	21.00	23.21	26.85
WACKER	10.74	11.23	11.87	11.40	9.74	11.52	10.90	11.14	12.01	17.49	14.63	17.59	17.70
KEN HAVE	17.46	16.98	18.05	15.82	16.27	15.11	14.95	15.91	16.97	16.33	17.66	17.98	29.58
ANN KARE	22.02	21.44	17.98	*****	17.13	17.11	18.16	19.82	21.46	*****	18.38	18.24	21.43
LAURA MO	7.32	13.15	10.37	8.71	8.73	9.11	11.00	12.00	11.35	11.97	18.69	15.42	16.10
JUN AILP	17.79	16.56	17.55	15.38	15.12	14.26	15.04	15.50	14.62	14.75	15.24	15.93	19.54
MEAN	16.71	17.17	16.75	14.63	14.31	14.30	14.74	15.39	16.51	16.55	17.63	18.04	21.75
STD. DEV	6.61	4.75	5.12	5.09	4.13	4.28	3.88	3.99	4.76	3.78	2.38	2.73	5.96
N	5.	6.	6.	5.	6.	6.	6.	6.	6.	5.	6.	6.	6.

PLASMA AMINO ACIDS

ASPARTAME , DOSE = 150 MG/KG

VARIABLE IS HISTIDIN

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
JUN AILP	9.10	8.30	5.05	7.99	8.30	7.88	7.79	8.73	8.23	9.56	8.66	8.65	9.25
KEN HAVE	8.06	7.71	6.91	6.07	5.12	5.86	6.40	6.25	6.39	6.51	6.32	6.74	12.94
LAURA MO	6.79	7.35	6.27	5.43	5.72	5.12	5.75	6.54	6.11	6.04	8.57	6.53	7.51
ANN KARE	12.66	12.59	10.96	*****	10.02	11.20	8.23	10.64	12.61	*****	10.19	12.11	12.98
WACKER	7.63	8.22	8.86	8.54	7.83	8.78	7.75	7.75	8.01	11.33	8.62	12.41	13.26
KENT CUI	10.41	9.39	10.23	9.48	7.80	8.41	8.24	8.78	9.71	9.20	7.84	9.79	10.80
MEAN	9.11	8.93	6.71	7.50	7.63	7.68	7.36	8.12	8.60	8.33	8.45	9.44	10.97
STD. DEV	2.14	1.92	1.83	1.70	1.56	2.18	1.04	1.64	2.32	2.14	1.11	2.45	2.53
N	5.	6.	6.	5.	6.	6.	6.	6.	6.	5.	6.	6.	5.

TABLE XVIII Plasma amino acid levels (umoles/dl) in normal adults administered ASPARTAME at 150 mg/kg body weight.

SEAPLE STUDY - INDIVIDUAL DATA														
PLASMA AMINO ACIDS														
ASPARTAME , DOSE = 150 MG/KG														
VARIABLE IS ARGININ														
SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR	
N. MOORE	4.81	6.22	6.28	5.62	5.31	6.36	5.62	5.86	5.55	7.73	6.11	8.29	5.69	
KENT CUI	11.44	11.04	13.65	11.91	9.78	10.94	8.22	9.65	9.50	8.81	7.80	8.49	11.11	
Laura MU	6.35	9.04	9.05	6.94	7.31	6.22	5.83	6.81	5.82	5.83	8.45	6.01	9.61	
ANN KAJE	9.46	9.06	7.78	*****	7.41	8.27	5.33	7.57	7.62	*****	6.08	8.55	9.55	
KEV FAYE	12.67	11.70	11.75	9.97	10.12	10.15	5.26	8.35	8.73	3.38	9.04	9.01	12.31	
JUN WISP	14.11	13.02	15.46	13.98	13.59	12.76	10.84	11.20	10.22	10.11	10.79	10.95	12.69	
MEAN	9.81	10.01	10.67	9.69	8.92	9.11	7.52	8.24	7.91	8.11	8.18	8.55	10.74	
STD. DEV	3.64	2.42	3.57	3.44	2.89	2.62	2.30	1.95	1.93	1.57	1.66	1.58	1.74	
N	6.	6.	6.	5.	6.	5.	6.	6.	6.	5.	6.	6.	6.	

SEPARATE STUDY - INDIVIDUAL DATA
REC AMINO ACIDS

TABLE XIX Erythrocyte amino acid levels (umoles/100gm) in normal
ASPARTAME , DOSE = 150 MG/KG adults administered ASPARTAME at 150 mg/kg body weight.

VARIABLE IS TAURINE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
LAURA MU	4.10	4.58	4.58	3.50	3.52	3.39	3.30	4.34	14.42	12.96	5.90	7.15	7.10
KEN HAYE	3.74	3.55	3.56	17.12	4.13	6.02	1.91	2.15	2.57	2.52	2.24	8.18	2.26
ANN KARE	9.48	8.78	10.14	*****	3.46	3.84	3.25	7.19	5.48	*****	8.64	5.57	5.93
JEN KISP	3.02	2.92	2.96	3.21	3.52	2.63	3.56	6.70	2.30	11.52	3.16	2.56	4.17
A MCKEE	5.33	5.25	4.38	2.01	3.40	2.73	55.51	16.85	7.45	28.01	6.41	8.93	10.78
KENT CUI	12.50	4.12	4.21	2.35	2.31	3.28	3.56	3.19	3.43	3.26	2.16	2.13	5.27
MEAN	6.52	4.87	4.99	5.64	3.41	7.18	11.91	6.74	5.94	11.65	4.75	6.26	5.92
STD. DEV	3.91	2.08	2.60	6.45	0.60	7.85	21.27	5.33	4.59	10.29	2.64	3.21	2.89
N	6.	6.	6.	5.	6.	6.	6.	6.	6.	5.	6.	6.	6.

REC AMINO ACIDS

ASPARTAME , DOSE = 150 MG/KG

VARIABLE IS ASPARTAT

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
ANN KARE	18.17	18.74	19.96	*****	19.45	19.79	18.39	19.84	20.33	*****	20.51	19.29	20.87
KENT CUI	24.78	27.05	22.64	25.28	25.97	27.54	27.14	26.45	26.59	28.05	24.62	23.32	15.92
A MCKEE	23.54	25.63	26.21	25.71	26.14	25.97	28.78	24.47	24.07	29.47	22.41	24.33	25.08
KEN HAYE	22.34	24.40	22.76	22.08	24.00	23.10	22.33	24.97	23.29	25.17	26.42	23.45	24.29
JEN KISP	14.55	15.37	14.63	15.47	12.40	16.52	14.40	15.21	13.07	15.09	15.03	14.22	15.36
LAURA MU	23.41	23.98	23.92	23.97	23.90	24.12	25.33	26.13	21.39	21.86	19.84	23.38	20.02
MEAN	21.13	22.53	21.69	22.50	21.98	22.82	22.73	22.34	21.50	23.03	21.49	21.32	22.07
STD. DEV	3.94	4.50	4.01	4.18	5.23	4.06	5.50	4.43	4.72	5.74	4.00	3.80	4.14
N	6.	6.	6.	5.	6.	6.	6.	6.	6.	5.	6.	6.	6.

TABLE XIX Erythrocyte amino acid levels (umoles/100gm) in normal adults-administered-ASPARTAME at 150-mg/kg body-weight.

ACRYLATE, CCSE = 150 MG/KG

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
KEN RAYE	9.48	9.86	8.90	8.84	8.53	8.46	8.13	7.69	8.65	7.47	8.09	8.70	7.76	11.37
JEN RISP	5.43	8.63	8.42	8.77	6.93	8.19	8.30	6.88	7.29	5.70	6.23	6.24	6.41	9.44
LALRA MC	8.23	8.17	8.44	9.35	8.07	8.30	8.43	7.96	8.95	6.79	7.25	6.11	7.19	7.47
N MCKEE	8.91	11.86	11.45	10.55	10.41	11.34	10.67	12.37	10.67	10.00	10.38	9.66	10.23	10.73
RENT CUI	9.42	10.64	6.45	9.95	9.73	8.62	9.72	8.10	7.63	7.41	7.58	6.71	7.54	9.48
ANN RAYE	13.33	13.59	13.70	12.60	12.60	12.50	13.79	11.04	12.39	11.75	****	14.97	11.11	14.40
MEAN	9.63	10.49	9.57	10.02	9.39	9.57	9.84	9.01	9.25	8.19	7.91	8.56	8.37	10.48
STD. DEV	1.08	2.04	2.59	1.44	2.00	1.86	2.17	2.17	1.93	2.25	1.54	3.34	1.86	2.34
N	6	6	6	6	6	6	6	6	6	6	5	6	6	6

ASPARTAME, DCSE = 150 MG/KG

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
ANN KAGE	10.04	9.23	9.53	*****	9.32	9.27	10.50	9.09	11.24	10.32	*****	10.99	9.99	17.35
JEN WISP	10.70	10.40	10.53	10.92	8.93	10.60	10.80	10.07	10.58	8.14	9.73	9.79	10.05	11.37
M WKEE	7.81	9.41	9.12	9.47	9.11	9.68	9.28	10.79	9.54	9.65	10.31	8.35	13.26	10.46
LAKRA MC	17.16	14.69	14.81	14.72	14.72	14.54	15.11	14.48	15.47	13.37	14.14	12.12	14.05	13.40
KENT CUI	11.69	12.09	9.70	11.63	11.39	11.53	12.87	11.71	11.21	11.01	11.24	10.00	10.26	11.13
KEN HAYE	13.12	13.00	12.38	12.60	12.15	12.25	12.45	10.33	11.85	10.70	11.63	12.37	12.53	12.24
MEAN	11.75	11.59	11.07	11.87	10.94	11.41	11.85	11.08	11.65	10.53	11.42	10.60	11.20	11.99
STL. DEV	3.18	2.04	2.15	1.56	2.28	1.82	2.06	1.88	2.03	1.72	1.69	1.53	1.70	1.20
N	6	6	6	5	6	6	6	6	6	6	5	6	6	6

REARLE STUDY - INDIVIDUAL DATA RBC AMINO ACIDS

TABLE XIX Erythrocyte amino acid levels (umoles/100gm) in normal adults administered ASPARTAME at 150 mg/kg body weight.

ASPARTAME , DOSE = 150 MG/KG

VARIABLE IS ASPARAGIN

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
ANN KABB	10.68	6.66	7.85	*****	7.66	10.43	1.26	8.70	9.21	9.46	*****	3.46	6.14	8.97
KENT CUI	11.83	13.95	11.83	12.42	14.48	15.38	15.37	11.75	16.69	11.13	7.78	5.67	5.93	12.10
M MUNE	17.35	13.53	11.43	16.35	12.76	11.59	13.21	17.42	12.25	11.46	16.79	12.73	12.22	14.46
KEN HAYE	10.89	13.94	13.06	13.12	11.97	15.49	13.57	15.26	17.88	16.00	13.94	18.39	12.74	13.92
JON WISP	9.13	6.91	8.82	10.13	8.79	11.39	11.59	9.43	11.76	8.13	11.52	10.56	5.87	5.43
LAURA MU	13.69	14.83	16.33	17.26	17.74	16.56	15.94	18.23	11.42	13.15	13.14	14.50	14.73	13.75
MEAN	12.26	11.62	11.55	13.86	12.23	13.47	12.91	13.46	13.20	11.55	12.71	12.38	10.95	12.09
STD. DEV	2.91	3.81	3.05	2.93	3.70	2.62	3.23	4.09	3.35	2.78	3.29	3.65	3.00	2.42
N	5.	6.	6.	5.	6.	6.	6.	6.	6.	6.	5.	6.	6.	6.

RBC AMINO ACIDS

ASPARTAME , DOSE = 150 MG/KG

VARIABLE IS GLUTAMIN

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
LAURA MU	44.08	44.79	41.59	37.91	41.18	41.42	38.87	39.56	40.22	37.93	33.58	32.32	33.71	44.59
JON WISP	50.91	53.57	46.63	51.50	47.49	51.13	52.97	46.46	49.59	41.03	49.67	50.02	50.43	53.28
KEN HAYE	55.89	52.06	48.89	49.16	47.34	49.19	49.85	57.43	58.15	41.71	47.45	47.47	51.91	43.75
M MCKFE	38.79	39.88	38.60	37.70	41.72	45.54	41.63	52.90	47.23	40.98	44.17	35.59	43.91	43.98
KENT CUI	58.82	52.80	52.60	52.29	52.70	54.27	60.91	56.29	53.74	53.39	54.34	45.36	44.07	43.23
ANN KABB	33.63	36.56	32.56	*****	35.49	30.78	41.91	37.24	45.77	36.76	*****	44.91	40.47	41.57
MEAN	47.00	47.51	43.71	45.51	44.22	45.40	47.69	48.28	49.11	41.97	45.84	42.70	40.02	45.37
STD. DEV	9.88	8.34	6.93	7.20	6.07	8.43	8.43	8.53	6.28	5.93	7.79	7.06	5.27	4.14
N	6.	6.	6.	5.	6.	6.	6.	6.	6.	6.	5.	6.	6.	6.

SEARLE STUDY - INDIVIDUAL DATA
RBC AMINO ACIDS

TABLE XIX Erythrocyte amino acid levels (umoles/100gm) in normal adults administered ASPARTAME at 150mg/kg body weight.

ASPARTAME , DOSE = 150 MG/KG

VARIABLE IS GLUTAMATE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
ANN KREE	22.04	23.35	18.88	22.45	24.35	21.68	20.53	25.57	20.21	20.66	23.89	22.62	19.81
JEN KISP	21.42	21.09	19.22	20.01	19.57	17.73	21.59	18.16	22.40	19.25	20.59	19.08	21.14
KEN HAYE	23.94	26.26	23.87	30.45	30.14	27.88	27.83	26.54	28.77	28.22	29.73	29.30	26.13
JEN KISP	17.93	16.48	17.73	16.53	17.93	17.93	17.12	17.78	19.61	21.23	23.60	23.38	19.61
ANN KREE	20.52	17.47	17.99	***	17.49	17.52	18.19	18.02	21.21	17.33	***	22.34	20.13
LAURA SU	34.90	26.54	36.44	38.15	38.55	37.46	34.36	38.33	38.97	36.82	37.77	40.21	32.97
MEAN	23.46	23.53	22.52	25.53	24.62	23.37	23.25	24.20	25.19	24.25	27.12	26.19	23.46
STD. DEV	5.94	7.36	7.17	8.74	8.22	7.57	6.51	7.92	7.51	8.04	6.81	7.24	5.70
N	6.	6.	6.	5.	6.	6.	6.	6.	6.	5.	6.	6.	6.

RBC AMINO ACIDS

ASPARTAME , DOSE = 150 MG/KG

VARIABLE IS PROLINE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
ANN KREE	11.69	9.60	9.65	***	11.00	10.90	10.22	11.69	9.50	***	10.00	7.31	13.15
JEN KISP	14.29	15.08	16.29	13.95	14.24	17.54	17.63	13.40	11.46	10.15	10.54	10.84	16.50
KEN HAYE	11.95	13.37	13.81	14.43	14.08	14.71	15.35	18.66	15.74	16.03	15.45	12.90	12.17
JEN KISP	13.57	14.88	15.26	17.20	17.16	11.51	18.44	15.73	14.19	12.41	12.15	10.35	15.09
LAURA SU	11.32	10.87	11.55	10.52	12.40	13.45	11.83	10.63	9.29	9.78	8.71	6.91	6.30
ANN KREE	7.12	8.50	7.88	8.68	9.86	10.07	10.66	11.48	7.19	8.01	6.44	7.12	9.04
MEAN	11.72	12.05	12.42	12.56	13.12	13.14	14.05	13.35	12.36	11.01	9.85	9.24	12.47
STD. DEV	2.57	2.79	3.29	3.37	2.61	2.06	3.59	3.30	2.84	2.93	3.22	2.48	3.10
N	6.	6.	6.	5.	6.	6.	6.	6.	6.	5.	6.	6.	6.

SEARLE STUDY - INDIVIDUAL DATA
REC AMINO ACIDS

TABLE XIX Erythrocyte amino acid levels (umoles/100gm) in normal adults administered ASPARTAME AT 150 mg/kg body weight.

VARIABLE IS GLYCINE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
KENT CLI	26.51	27.55	26.74	27.42	26.43	29.76	30.13	33.62	29.87	24.07	24.29	26.56	25.76	27.99
LAURA MU	40.88	40.23	40.40	39.72	40.04	35.21	37.23	40.50	40.33	35.78	37.43	35.12	40.67	36.32
MCKEE	30.12	27.67	25.86	28.49	24.61	29.58	26.23	29.22	26.53	28.62	27.90	27.66	28.45	29.63
JEN WISP	29.86	32.56	31.72	25.56	27.10	30.55	26.74	24.79	26.17	30.75	29.82	29.80	32.63	30.65
ANN KARE	29.08	30.28	31.41	***	28.65	30.53	28.74	21.31	26.56	27.71	***	27.79	26.55	28.47
KEN HAYE	24.59	25.30	27.15	26.19	23.35	24.20	24.48	28.22	28.55	31.00	25.61	22.25	23.82	25.73
MEAN	30.14	30.80	30.55	29.48	28.45	29.57	28.93	25.63	29.73	29.69	29.81	29.87	30.51	30.47
STD. DEV	5.67	5.13	5.43	5.84	5.94	3.51	4.52	6.76	5.37	3.89	4.80	3.27	5.61	3.02
N	6.	6.	6.	5.	6.	6.	6.	6.	6.	6.	5.	6.	6.	6.

RSC AMINO ACIDS

ASPARTAME , DOSE = 150 MG/KG

VARIABLE IS ALANINE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
ANN KARE	25.46	26.24	28.74	***	34.89	33.89	33.14	31.92	31.26	25.88	***	30.11	24.22	20.11
JEN WISP	32.06	29.05	35.58	35.84	37.59	37.08	27.22	26.16	34.48	36.90	38.38	38.15	33.39	42.23
KEN HAYE	30.18	30.91	32.87	34.86	36.07	40.12	24.81	40.78	39.49	36.45	37.85	42.67	35.77	40.13
KENT CLI	23.27	25.75	27.69	34.37	36.11	38.47	40.33	35.54	34.16	32.02	22.58	28.81	20.91	34.58
MCKEE	35.26	40.60	34.57	38.70	35.01	42.11	42.27	42.64	41.61	40.04	37.65	33.29	34.26	36.22
LAURA MU	28.96	31.99	35.04	35.94	35.95	35.35	36.22	41.57	39.09	32.84	32.47	32.40	31.05	35.49
MEAN	29.36	32.26	32.41	35.94	36.07	37.84	37.33	38.17	36.63	33.99	35.19	34.26	31.55	30.47
STD. DEV	4.21	5.37	3.39	1.68	0.56	3.04	3.42	4.27	3.96	5.01	3.94	5.24	5.53	4.27
N	6.	6.	6.	5.	6.	6.	6.	6.	6.	6.	5.	6.	6.	6.

SEARLE STUDY - INDIVIDUAL DATA
RBC AMINO ACIDS

TABLE XIX Erythrocyte amino acid levels (umoles/100gm) in normal adults administered ASPARTAME at 150 mg/kg body weight.

VARIABLE IS ALANINE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
LAURA NU	0.74	0.75	0.91	0.77	0.76	0.75	0.67	0.55	0.75	0.52	0.65	0.30	0.19	0.54
KENT CUI	1.76	1.35	1.36	1.63	1.42	1.40	2.35	1.55	1.55	1.70	1.64	1.32	1.44	1.41
JUN WISP	0.69	0.82	0.13	0.81	0.66	0.74	0.65	0.52	0.76	0.53	0.25	0.22	0.41	0.66
KEN HAYE	1.14	0.86	0.84	0.99	0.93	0.85	0.65	0.24	0.52	0.48	0.68	0.63	0.50	0.70
W MCREE	0.10	0.16	0.21	0.15	0.40	0.11	0.28	0.16	0.21	0.25	0.26	0.31	0.36	0.19
ANN KADE	0.69	0.39	0.53	*****	0.59	0.22	0.39	0.31	0.78	0.53	*****	0.38	0.71	1.14
MEAN	0.85	0.72	0.66	0.57	0.78	0.68	0.83	0.58	0.77	0.67	0.70	0.61	0.60	0.77
STD. DEV	0.55	0.41	0.47	0.53	0.35	0.47	0.76	0.53	0.44	0.52	0.57	0.43	0.44	0.44
N	6.	6.	6.	5.	6.	6.	6.	6.	6.	6.	5.	6.	6.	6.

PBC AMINO ACIDS

ASPARTAME , DOSE = 150 MG/KG

VARIABLE IS VALINE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
LAURA NU	11.06	11.18	11.17	10.56	10.03	9.13	10.97	11.33	10.54	9.36	9.20	10.06	11.85	11.31
JUN WISP	14.47	17.06	16.06	*****	15.84	16.15	14.24	13.75	17.55	16.99	*****	16.30	15.00	20.11
KEN HAYE	13.52	13.66	13.23	12.84	10.42	11.51	11.59	10.11	11.39	9.60	11.84	13.32	12.08	15.73
W MCREE	6.25	7.87	6.53	5.86	5.44	8.90	7.39	8.71	8.82	6.51	9.39	8.64	10.59	10.80
KENT CUI	17.89	15.42	14.21	14.14	12.41	12.97	13.75	13.50	15.04	14.67	14.58	12.20	14.53	21.10
KEN HAYE	18.08	19.16	18.28	17.46	17.41	11.70	15.78	11.39	11.63	11.48	12.05	12.03	13.27	20.27
MEAN	13.54	14.06	13.25	12.17	11.92	11.73	12.29	11.46	12.45	11.53	11.49	12.05	12.05	16.49
STD. DEV	4.47	4.09	4.09	4.32	4.33	2.67	2.78	1.94	3.20	3.75	2.36	2.65	1.65	4.67
N	6.	6.	6.	5.	6.	6.	6.	6.	6.	6.	5.	6.	6.	6.

TABLE XIX Erythrocyte amino acid levels (umoles/100 gm) in normal adults administered ASPARTAME at 150 mg/kg body weight.

ASPARTAME, COSE = 150 MG/KG

VARIABLE IS CYSTINE

[illegible]

REC AMINO ACIDS

ASPARTATE, DCSC = 150 MG/KG

ANALYTICAL METHOD.

[illegible]

SEATTLE STUDY - INDIVIDUAL DATA
RBC AMINO ACIDS

TABLE XIX Erythrocyte amino acid levels (umoles/100 gm) in normal adults administered ASPARTAME at 150 mg/kg body weight.

VARIABLE IS ISOLEUCINE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
ANNA KAYE	5.57	4.49	3.55	3.50	3.19	2.80	2.35	2.17	2.90	2.94	3.49	3.59	3.93	5.35
KENT CLY	4.44	4.31	4.35	3.90	3.40	2.92	2.51	1.77	2.74	2.70	2.96	3.27	3.30	4.98
LAURA MU	3.57	3.77	3.64	2.91	2.72	2.41	3.08	2.78	3.88	2.25	2.35	2.04	2.59	3.34
JON WISE	3.64	3.47	3.43	2.90	2.05	2.11	1.99	2.03	2.30	1.95	2.39	2.62	2.02	3.93
KEVIN WISE	2.14	2.28	2.20	1.67	1.18	0.95	0.33	1.09	1.39	1.64	1.81	1.64	2.49	1.95
ANNA KAYE	3.44	3.10	2.52	2.22	2.10	1.90	1.42	1.66	2.53	2.33	2.28	2.28	2.53	4.00
MEAN	3.80	3.57	3.34	2.98	2.44	2.19	1.95	1.92	2.70	2.38	2.60	2.68	2.99	3.92
STD. DEV.	1.14	0.82	0.83	0.84	0.83	0.70	0.96	0.56	0.83	0.52	0.64	0.74	0.55	1.22
N	6.	6.	6.	5.	6.	6.	6.	6.	6.	6.	5.	6.	6.	6.

RBC AMINO ACIDS

ASPARTAME , DOSE = 150 MG/KG

VARIABLE IS LEUCINE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
ANNA KAYE	6.93	6.58	5.46	3.62	2.76	4.43	3.47	3.61	6.58	6.19	4.91	7.00	6.93	10.33
KENT CLY	4.69	4.60	4.55	3.62	2.76	2.81	2.05	3.25	3.80	4.35	4.91	4.70	6.35	6.27
JON WISE	8.02	7.53	7.50	6.48	4.85	5.04	5.07	5.14	5.83	5.15	6.35	6.92	7.02	8.61
KEVIN WISE	11.21	10.75	8.95	8.51	7.96	6.76	6.17	5.42	7.08	7.23	5.18	5.02	5.74	12.12
ANNA KAYE	9.83	9.17	5.32	8.35	7.27	6.25	6.23	5.19	7.19	7.60	8.41	8.62	8.62	10.96
LAURA MU	6.29	6.72	6.28	5.12	4.36	3.94	4.60	4.86	6.56	5.14	5.18	5.49	6.75	7.22
MEAN	7.83	7.51	7.01	6.42	5.28	4.85	4.61	4.58	6.17	5.93	6.81	6.56	7.68	9.25
STD. DEV.	2.39	2.04	1.91	2.10	1.56	1.48	1.62	0.91	1.26	1.24	1.91	1.65	1.28	2.27
N	6.	6.	6.	5.	6.	6.	6.	6.	6.	6.	5.	6.	6.	5.

SEPARATE STUDY - INDIVIDUAL DATA
RBC AMINO ACIDS

TABLE XIX Erythrocyte amino acid levels (umoles/100 gm) in normal adults administered ASPARTAME at 150 mg/kg-body weight.

ASPARTAME , DOSE = 150 MG/KG

VARIABLE IS TYROSINE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
JCA WISP	3.66	3.97	6.85	8.26	7.50	10.93	10.50	6.72	6.53	6.09	6.13	5.57	5.04	2.93
ANA KEEF	2.93	4.20	4.56	*****	5.10	5.33	6.32	6.59	7.17	5.36	*****	6.34	5.13	5.09
LAURA ML	3.07	4.79	5.82	6.81	8.50	9.61	11.63	10.64	9.72	6.40	5.09	5.20	5.63	4.13
KEN FAYE	6.53	8.12	8.38	3.21	9.31	10.66	11.39	11.19	12.44	10.43	10.02	5.75	8.26	5.11
KENT GUI	4.14	5.68	7.31	8.76	9.40	10.52	11.75	5.45	7.36	6.43	5.87	5.49	6.13	6.06
W YONEE	1.00	2.90	3.32	3.83	4.13	4.64	5.15	4.25	3.77	3.21	3.04	2.48	2.86	2.39
MEAN	3.65	4.84	6.04	7.29	7.34	8.71	9.47	8.15	7.33	6.32	6.03	5.82	5.60	5.03
STD. DEV	1.65	1.02	1.86	2.10	2.23	2.73	2.95	2.72	2.95	2.35	2.54	2.35	2.01	2.38
N	6.	6.	6.	5.	6.	6.	6.	6.	6.	6.	5.	6.	6.	6.

RBC AMINO ACIDS

ASPARTAME , DOSE = 150 MG/KG

VARIABLE IS PHENYLAL

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
JCA WISP	2.87	5.73	16.03	13.67	13.14	17.59	14.90	6.56	5.71	5.07	5.53	4.84	4.22	4.47
KENT GUI	2.45	3.73	22.74	23.79	19.19	24.88	25.95	13.46	8.00	6.59	5.52	4.57	5.35	4.75
LAURA ML	2.58	10.06	30.08	25.78	28.31	28.04	24.73	18.99	12.31	7.51	5.84	5.74	6.17	3.59
ANA KEEF	3.06	11.58	13.01	*****	15.40	19.87	21.36	15.75	11.74	6.63	*****	7.36	4.80	4.59
KEN FAYE	5.33	23.10	25.89	27.93	27.76	42.26	42.46	25.06	22.07	14.17	12.82	11.52	5.77	5.82
W YONEE	2.79	15.15	21.80	14.95	16.49	28.57	28.43	18.62	12.12	8.69	6.86	5.45	4.16	2.56
MEAN	3.14	13.89	21.59	21.22	20.05	26.88	26.30	16.41	11.99	8.10	7.31	6.58	5.76	4.27
STD. DEV	1.09	6.51	6.27	6.49	6.49	8.70	9.19	6.21	5.61	3.20	3.13	2.61	2.10	1.05
N	6.	6.	5.	5.	6.	6.	6.	6.	6.	6.	5.	6.	6.	6.

SEARLE STUDY - INDIVIDUAL DATA
RBC AMINO ACIDS

TABLE XIX Erythrocyte amino acid levels (umoles/100 gm) in normal adults administered ASPARTAME at 150 mg/kg body weight.

VARIABLE IS CARNITINE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
ANN KAYE	7.12	7.22	7.17	7.17	7.59	7.90	6.42	7.39	7.30	7.30	5.58	6.74	7.77
KENT CLY	10.81	12.82	13.33	12.95	12.83	13.84	10.01	9.99	9.78	9.22	10.81	5.59	13.07
KEN HAYE	14.55	15.34	14.31	16.30	14.68	15.46	12.29	11.86	11.73	12.49	15.00	13.72	15.56
LAURA M	13.31	13.93	14.35	17.23	15.81	15.58	15.26	13.53	14.94	15.07	12.28	13.71	15.55
A MCKEE	10.11	10.15	10.68	11.05	10.83	9.49	8.00	8.03	8.97	8.44	7.27	7.04	9.17
JEN WISP	9.48	9.51	8.52	9.95	10.80	11.45	5.18	9.31	15.75	15.99	9.01	9.33	9.89
MEAN	10.50	11.49	11.39	13.51	12.09	12.29	10.57	9.93	11.21	12.24	10.16	10.51	12.32
STD. DEV	2.69	3.05	3.09	3.16	2.99	3.20	4.48	2.39	3.59	3.38	3.73	4.53	4.17
N	6.	6.	6.	5.	6.	6.	6.	6.	6.	5.	6.	6.	6.

RBC AMINO ACIDS

ASPARTAME , DOSE = 150 MG/KG

VARIABLE IS LYSINE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
KEN HAYE	12.55	11.69	10.65	11.68	11.26	10.99	11.41	12.67	13.62	15.19	12.26	14.30	16.46
JEN WISP	7.91	7.93	7.35	7.90	7.46	7.59	8.01	7.55	9.96	11.03	9.59	10.39	10.46
A MCKEE	11.17	9.95	9.92	10.62	10.07	7.95	6.98	8.45	7.71	3.05	6.20	8.57	3.59
ANN KAYE	11.88	11.65	11.00	11.00	10.39	10.99	10.09	12.72	11.61	11.61	5.36	10.48	15.11
LAURA M	9.62	9.70	9.71	10.99	11.50	11.50	14.20	13.98	11.39	10.26	12.40	14.09	12.72
KENT CLY	10.08	12.75	12.44	12.23	12.25	12.48	9.61	9.42	8.60	8.99	11.53	11.39	14.24
MEAN	10.53	10.62	10.18	10.66	10.57	10.22	10.05	10.36	10.51	10.20	10.34	11.71	12.93
STD. DEV	1.69	1.75	1.69	1.67	1.69	2.01	2.56	2.49	2.13	2.17	2.16	2.42	2.96
N	6.	6.	5.	5.	6.	6.	6.	6.	6.	5.	6.	6.	6.

SEATTLE STUDY - INDIVIDUAL DATA
REC AMINO ACIDS

TABLE XIX Erythrocyte amino acid levels (umoles/100gm) in normal adults administered ASPARTAME at 150 mg/kg body weight.

ASPARTAME DOSE = 150 MG/KG

VARIABLE IS HISTIDIN

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
M. MURPHY	9.10	8.45	8.61	9.08	8.75	7.05	6.66	7.25	6.79	6.32	6.80	5.40	6.86	7.32
ANN KAGE	7.03	6.67	6.60	*****	6.71	6.60	6.20	6.05	7.09	7.01	*****	5.20	6.22	7.33
JEN WISP	5.67	5.54	5.22	5.81	5.98	6.05	6.17	5.45	5.78	7.07	7.80	7.02	6.82	6.19
KENY CUI	5.90	7.73	7.76	7.56	7.55	8.18	6.49	5.87	5.71	5.52	5.59	7.03	6.37	8.19
LAURA MU	6.21	6.18	6.35	7.03	7.56	7.69	9.33	3.68	7.42	6.43	5.71	6.30	7.75	6.94
KEN HAYE	7.10	6.57	6.62	6.82	6.85	6.89	6.77	8.31	8.09	8.49	9.04	6.63	10.16	10.13
MEAN	6.83	6.86	6.87	7.27	7.23	7.06	6.94	6.93	6.53	6.81	6.95	6.25	7.45	7.68
STD. DEV	1.25	1.06	1.20	1.20	0.95	0.75	1.20	1.35	1.20	1.00	1.39	0.80	1.42	1.36
N	6.	6.	6.	5.	6.	6.	6.	6.	6.	6.	5.	6.	6.	6.

REC AMINO ACIDS

ASPARTAME DOSE = 150 MG/KG

VARIABLE IS ARGININE

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
M. MURPHY	2.61	2.73	2.97	3.11	2.61	2.09	1.47	2.65	1.68	1.37	1.57	1.17	2.17	1.24
JEN WISP	3.61	4.12	10.21	4.13	4.02	3.55	3.50	4.67	3.92	3.37	4.40	4.25	3.55	3.87
LAURA MU	1.85	1.76	1.64	1.69	1.76	1.05	3.26	2.88	2.34	1.53	1.19	1.14	2.27	1.79
ANN KAGE	2.33	1.99	1.98	*****	1.67	1.44	1.86	1.39	3.40	3.06	*****	1.25	1.92	2.17
KENY CUI	2.61	2.64	2.60	1.39	2.03	1.89	3.19	3.64	4.76	4.11	4.64	4.24	2.92	2.35
KEN HAYE	2.21	2.98	3.13	3.54	3.28	3.50	2.08	2.35	1.39	1.13	1.67	2.46	3.23	2.62
MEAN	2.54	2.70	3.75	2.77	2.56	2.24	2.56	2.94	2.91	2.51	2.69	2.42	2.92	2.34
STD. DEV	0.90	0.84	3.21	1.19	0.93	1.05	0.86	1.12	1.33	1.34	1.68	1.51	0.92	0.39
N	6.	6.	6.	5.	6.	5.	6.	6.	6.	6.	5.	6.	6.	6.

PLASMA AMINO ACIDS TABLE XX Plasma amino acid levels (umoles/dl) in normal adults
ASPARTAME , DCSE = 200 MG/KG administered ASPARTAME at 200 mg/kg body weight.---

ASPARTAME , DCSE = 200 MG/KG

EXPLANATION OF THE

[illegible]

TABLE XX Plasma amino acid levels (umoles/dl) in normal adults administered ASPARTAME at 200 mg/kg body weight.

ASPARTAME, DUSE = 200 MG/KG

VARIABLE IS ASPART

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
GARY EAR	0.18	0.33	0.23	0.40	0.50	0.30	0.22	0.15	0.11	0.17	0.12	0.12	0.12	0.13
SUSAN KR	0.21	0.28	0.32	0.30	0.43	0.32	0.68	0.24	0.19	0.19	0.11	0.12	0.32	0.46
JACK EAR	0.33	1.28	1.65	1.52	0.99	0.97	0.91	0.35	0.33	0.28	0.12	0.17	0.12	0.37
SUSAN H	0.49	0.49	0.45	0.27	0.36	0.77	0.29	0.25	0.17	0.13	0.11	0.11	0.09	0.10
CINDY MC	0.12	0.42	0.51	0.68	0.44	0.62	0.59	0.33	0.29	0.21	0.15	0.15	0.12	0.30
KAROL FA	0.25	0.18	1.24	0.75	0.53	1.27	0.83	0.26	0.23	0.15	0.17	0.16	0.22	0.34
MEAN	0.22	0.50	0.76	0.65	0.57	0.71	0.58	0.27	0.23	0.20	0.13	0.14	0.25	0.28
STD. DEV	0.08	0.40	0.57	0.47	0.23	0.38	0.26	0.09	0.08	0.05	0.03	0.02	0.16	0.14
N	5	6	6	6	6	6	6	6	6	5	5	6	5	6

PLASMA AMINO ACIDS

 $\text{ASPARAYE}, \text{DLSE} = 200 \text{ MG/KG}$

STEVENS

[illegible]

TABLE XX Plasma amino acid levels (umoles/dl) in normal adults administered Δ^2 -SPARTAME at 200 mg/kg-body-weight.

ASPAN T-100, CCSE = 200 MG/KG

[illegible][illegible]

ASPARTAME, CCSE = 200 MG/KG

[illegible][illegible]

TABLE XX Plasma amino acid levels—(umoles/dl)—in normal adults administered ASPAPTAME at 200 mg/m²/day

ASPARTAME • CUSE = 200 MG/KG

VARIABLE IS GLUTAMINE

[illegible]

PLASMA AMINO ACIDS

Aspartame, DOSE = 200 MG/KG

174V177G SI 715418-7A

[illegible]

PLASMA ANTIGACCS

TABLE XX Plasma amino acid levels (umoles/dl) in normal adults administered ASPARTAME at 200 mg/kg body weight.

DOSE = 200 MG/KG

VARIALE IS GLYCINE.

[illegible]

CLASPA AMINO ACIDS

ASPARTAME, DCSE = 200 MG/KG

—VARIABLE IS ALANINE—

[illegible]

TABLE XX Plasma amino acid levels (umoles/dl) in normal adults

administered-ASPARTAME at 200 mg/kg-body-weight;

PARADE IS FRCLINE

[illegible]

AVERAGE, CSE = 200 MG/KG

WHEELER IS CITIZEN

[illegible]

TABLE XX Plasma amino acid levels (umoles/dl) in normal adults administered ASPARTAME at 200 mg/kg body weight.

VARIABLE IS A_4MINDB

[illegible]

ASPARTAME , DOSE = 200 MG/KG

[illegible]

TABLE XX Plasma amino acid levels (umoles/dl) in normal adults administered ASPARTAME at 200 mg/kg body weight.

WARRIALE IS URAITHN.

[illegible]

ASPARTATE, CUSE = 200 MG/KG

VARIABLE IS LYSINE.

[illegible]

TABLE XX. Plasma amino acid levels (μ moles/dl) in normal adults administered ASPARTAME at 200 mg/kg body weight.

ASPARTAME, DCSE = 200 MG/KG

VARIABLE IS HISTORIC

[illegible]

FLASMA AMINO ACIDS

 $\Delta \text{SPRATIVE}$, $\text{DOSE} = 200 \text{ MG/KG}$

UNION IS ARGENTINE

[illegible]

TABLE XXI---Erythrocyte amino-acid levels (umoles/100 gm) in normal adults administered ASPARTAME at 200 mg/kg body weight.

ASPARTAME, DCSE = 200 MG/KG

VARIABLE IS TAUCHINE.

[illegible]

24C AMING ACICS

ASPARTATE, DSSF = 200 MG/KG

MICHAEL IS SPARTAN

[illegible]

TABLE XXI Erythrocyte amino acid levels (umoles/100 gm) in normal adults administered ASPARTAME at 200 mg/kg body weight.

VARIABLE IS ASPRAGN

[illegible]

ASPARTAME • CCSE = 200 MG/KG

VALERIE IS GLUTAMIN

[illegible]

TABLE XXI Erythrocyte amino acid levels (μ moles/100 gm) in normal adults-administered-ASPARTAME-at-200-mg/kg-body-weight.

ASPARTAME, LC50 = 200 MG/KG

[illegible]

ASPARTAME, CCSE = 200 MG/KG

[illegible]

AMINO ACIDS

TABLE XXI Erythrocyte amino acid levels (umoles/100gm) in normal adults administered ASPARTAME at 200 mg/kg body weight.

ASPARTAME, CCSE = 200 MG/KG

WARRIAGE IS GLYCINE

[illegible]

Fig. 2. Amino acids.

ASPARTATE, DOSE = 200 MG/KG

VARIABLE IS ALAINE.

[illegible]

TABLE XXI Erythrocyte amino acid levels (umoles/100gm) in normal adults administered ASPARTAME at 200 mg/kg body weight.

adults administered ASPARTAME at 200 mg/kg body weight.

VARIABLE IS CYSTINE

[illegible]

SCIENTIFIC JAC

ASSAYABLE, CASE = 200 MG/KG

VARIABLE IS METHICIN.

[illegible]

TABLE XXI Erythrocyte amino acid levels(umole/100gm) in normal adults administered ASPARTAME at 200 mg/kg body weight.

SPARTANE DCE = 200 MC/KG

TABLE 1

[illegible]

AMINO ACIDS

CONSTANTE • CUSE = 200 KG/KG

...VARIABLE IS LEUCINE

[illegible]

TABLE XXI Erythrocyte amino acid levels (umole/100gm) in normal adults administered ASPARTAME at 200 mg/kg body weight.

VARIAELE IS TYRCSINE-

AMINO ACIDS

VERIAC IS PHENYLALANINE

[illegible]

TABLE XXI Erythrocyte amino acid levels (umoles/100gm) in normal adults administered ASPARTAME at 200 mg/kg body weight.

CHARLELE IS CRAITHIN

[illegible]

4. REPORTAGE , DCSE = 200 MG/KG

WALKER-15-15

[illegible]

TABLE XXI Erythrocyte amino acid levels (umoles/100gm) in normal adults administered ASPARTAME at 200 mg/kg body weight.

SCIENCE CITY

$$\therefore \text{LAPARTIME} \quad , \quad \text{LCSE} = 200 \text{ MG/KG}$$

VARIALE IS HISTICIN[®]

SUBJECT / TIME	0 MIN	15 MIN	30 MIN	45 MIN	1 HR.	90 MIN	2 HR	3 HR	4 HR	5 HR	6 HR	7 HR	8 HR	24 HR
PARK PAR	5.99	5.53	5.73	5.77	5.22	5.34	5.13	5.89	6.94	5.27	6.73	4.91	4.93	5.02
GANDY PA	7.39	7.39	7.17	7.32	7.20	6.81	5.69	6.64	5.76	6.18	5.91	6.31	5.93	7.29
SHARON F	7.93	5.95	6.67	6.63	6.33	5.70	5.83	6.11	6.28	4.97	5.89	6.88	5.94	6.76
CARY EAR	8.73	8.90	5.17	9.52	8.58	9.03	8.57	8.25	8.35	8.41	8.42	7.79	8.56	9.95
SUSAN AR	6.18	7.30	7.37	7.37	7.32	7.46	6.92	7.45	7.17	7.57	6.09	7.50	8.50	7.18
CINDY AG	9.72	10.10	9.73	9.47	9.32	9.25	8.74	8.96	8.65	9.16	8.39	8.56	8.38	7.94
MEAN	8.00	7.51	7.63	7.68	7.42	7.26	6.80	7.22	7.19	6.93	6.90	6.58	7.05	7.19
STD. DEV	1.26	1.74	1.53	1.52	1.54	1.64	1.54	1.22	1.13	1.72	1.20	1.32	1.61	1.31

AC AMINO ACIDS

ASPARTAME, CCSE = 200 MG/KG

ARGENTINE IS ARGENTINE.

[illegible]

TABLE XXII Plasma amino acid levels (umoles/dl) in PKU HETEROZYGOTES administered ASPARTAME at 34 mg/kg body weight

IOWA PKU

PLASMA AMINO ACIDS, DOSE = 34 # SUBJECTS = 4		0.0	0.25	0.50	0.75	1.00	1.50	2.00	3.00	4.00	5.00	6.00	7.00	8.00
TIME (HR)														
Taurine	4.13	4.12	3.78	3.90	3.73	4.15	4.29	4.34	3.81	0.0	0.0	0.0	0.0	4.12
	1.93	1.42	1.34	1.18	1.22	1.84	1.35	1.61	1.50	0.0	0.0	0.0	0.0	0.61
Asparatate	0.26	0.16	0.20	0.15	0.14	0.16	0.15	0.13	0.11	0.0	0.0	0.0	0.0	0.23
	0.18	0.12	0.13	0.08	0.09	0.10	0.11	0.08	0.08	0.0	0.0	0.0	0.0	0.09
Threonine	19.34	19.72	21.01	20.40	19.71	18.80	16.40	17.65	18.55	0.0	0.0	0.0	0.0	19.89
	8.76	8.98	9.13	9.15	8.23	8.35	9.69	7.72	7.38	0.0	0.0	0.0	0.0	6.04
Serine	11.76	12.04	13.14	12.86	12.48	11.79	11.44	11.04	11.87	0.0	0.0	0.0	0.0	13.68
	4.33	3.95	4.57	5.15	4.68	3.98	3.95	3.73	4.29	0.0	0.0	0.0	0.0	2.73
Asparagine	7.29	9.65	10.97	10.98	10.15	8.76	9.08	7.48	9.04	0.0	0.0	0.0	0.0	7.85
	3.51	1.92	2.26	2.07	1.73	1.84	1.60	1.26	1.81	0.0	0.0	0.0	0.0	1.99
Glutamine	56.26	56.57	59.00	58.31	60.46	61.71	56.28	53.43	58.12	0.0	0.0	0.0	0.0	54.01
	10.45	8.46	10.95	12.19	11.96	9.73	12.13	4.35	12.64	0.0	0.0	0.0	0.0	19.66
Glutamate	2.62	2.03	2.46	2.65	3.51	3.21	3.61	2.02	2.21	0.0	0.0	0.0	0.0	1.37
	0.80	0.87	1.76	1.63	3.37	3.29	2.15	0.82	1.19	0.0	0.0	0.0	0.0	0.08
Proline	17.41	18.84	21.52	22.23	21.05	19.70	18.80	16.95	17.08	0.0	0.0	0.0	0.0	13.87
	4.00	3.63	5.16	5.66	5.38	3.99	4.18	3.13	4.98	0.0	0.0	0.0	0.0	4.89
Citrulline	2.15	1.75	1.54	1.47	1.39	1.33	1.43	1.72	1.88	0.0	0.0	0.0	0.0	2.27
	1.30	0.80	0.85	0.84	0.73	0.68	0.72	0.73	0.79	0.0	0.0	0.0	0.0	1.33
Glycine	27.52	29.08	27.18	26.31	25.99	27.72	24.72	24.67	24.61	0.0	0.0	0.0	0.0	26.32
	12.42	15.41	12.32	13.83	13.90	16.05	13.04	11.67	11.39	0.0	0.0	0.0	0.0	20.67
Alanine	34.90	37.97	45.81	48.04	49.07	44.66	40.53	37.60	35.56	0.0	0.0	0.0	0.0	29.21
	3.53	3.49	6.25	7.21	5.16	3.66	5.40	4.37	5.83	0.0	0.0	0.0	0.0	2.19
A-Aminobut.	1.08	1.06	1.11	1.07	1.05	0.95	0.97	0.92	0.94	0.0	0.0	0.0	0.0	1.38
	0.32	0.35	0.35	0.33	0.32	0.36	0.27	0.43	0.35	0.0	0.0	0.0	0.0	0.06

Table XXII Plasma amino acid levels (umoles/dl) in PKU HETEROZYGOTES after ASPARTAME administration at 34 mg/kg body weight

PLASMA AMINO ACIDS, DOSE = 34 # SUBJECTS = 4														
TIME (HR)	0.0	0.25	0.50	0.75	1.00	1.50	2.00	3.00	4.00	5.00	6.00	7.00	8.00	
Valine	20.80	19.95	20.29	19.22	18.98	18.28	17.71	17.55	18.18	0.0	0.0	0.0	17.86	
	3.16	1.84	2.65	3.22	3.27	2.32	1.80	2.39	1.40	0.0	0.0	0.0	0.66	
Cystine	9.26	9.06	8.87	8.58	8.83	8.81	8.50	8.12	8.56	0.0	0.0	0.0	7.86	
	0.55	1.59	1.78	1.28	1.72	2.63	2.10	1.44	2.37	0.0	0.0	0.0	1.32	
Methionine	2.77	3.08	2.87	2.66	2.46	2.84	2.21	2.50	2.67	0.0	0.0	0.0	2.84	
	0.85	0.73	0.87	1.03	1.04	1.27	0.59	0.85	0.96	0.0	0.0	0.0	1.18	
Isoleucine	5.39	5.74	5.38	4.71	4.45	4.67	4.00	4.33	5.11	0.0	0.0	0.0	5.37	
	0.85	0.47	0.57	0.84	0.93	1.68	0.68	0.70	0.68	0.0	0.0	0.0	0.29	
Leucine	10.82	10.84	10.94	9.76	9.12	8.76	8.44	9.19	10.34	0.0	0.0	0.0	11.47	
	1.32	1.29	1.96	2.27	2.59	2.36	1.54	1.27	0.73	0.0	0.0	0.0	1.46	
Tyrosine	4.60	4.88	5.45	5.67	5.15	5.74	5.43	5.25	5.46	0.0	0.0	0.0	4.40	
	1.50	1.18	1.52	1.70	2.10	1.26	1.31	1.15	1.32	0.0	0.0	0.0	2.04	
phenylalanine	6.56	9.98	14.93	15.34	15.67	13.40	12.79	10.39	9.27	0.0	0.0	0.0	7.45	
	1.43	1.71	2.54	1.95	1.50	0.90	0.84	1.63	1.32	0.0	0.0	0.0	2.18	
Ornithine	4.47	4.21	4.54	4.59	4.28	4.28	4.12	4.13	4.25	0.0	0.0	0.0	4.05	
	1.05	0.82	0.88	1.07	0.97	1.20	1.35	1.13	1.01	0.0	0.0	0.0	0.79	
Lysine	18.83	18.99	18.89	18.58	17.79	17.58	17.20	17.64	18.49	0.0	0.0	0.0	17.87	
	3.09	2.40	2.78	4.06	3.63	3.03	3.79	3.08	2.50	0.0	0.0	0.0	4.23	
Histidine	10.88	10.83	11.11	11.02	10.71	10.23	9.75	9.73	10.01	0.0	0.0	0.0	10.11	
	1.32	0.87	1.47	2.17	1.93	1.31	1.91	1.38	0.71	0.0	0.0	0.0	2.79	
Arginine	8.96	10.07	10.82	10.31	9.60	8.76	7.99	8.14	8.88	0.0	0.0	0.0	8.35	
	2.00	2.56	2.93	3.67	2.94	2.22	2.46	2.51	2.76	0.0	0.0	0.0	4.45	

TABLE XXIII ERYTHROCYTE AMINO ACID LEVELS (UMOLS/100 GM) IN PKU HETEROZYGOTES
ADMINISTERED ASPARTAME AT 34 mg/kg BODY WEIGHT

IOWA PKU

RBC AMINO ACIDS, DOSE = 34 # SUBJECTS = 4

Time(HR)	0.0	0.25	0.50	0.75	1.00	1.50	2.00	3.00	4.00	5.00	6.00	7.00	8.00
Taurine	6.07	11.57	10.51	11.64	16.07	13.21	14.21	9.81	15.86	0.0	0.0	0.0	19.32
	3.29	5.12	8.74	7.50	13.81	8.28	7.53	3.63	7.04	0.0	0.0	0.0	0.30
Asparate	22.17	21.21	21.66	21.66	21.09	21.16	20.83	22.55	21.60	0.0	0.0	0.0	22.61
	4.45	4.10	4.56	3.57	3.46	4.20	3.49	3.34	3.76	0.0	0.0	0.0	4.50
Threonine	14.51	14.04	14.87	14.01	13.61	13.12	11.65	12.68	12.28	0.0	0.0	0.0	13.29
	4.96	5.16	6.81	4.99	5.21	5.05	5.13	5.22	5.46	0.0	0.0	0.0	5.66
Serine	12.91	12.58	12.88	12.55	11.25	11.38	11.96	12.10	11.53	0.0	0.0	0.0	13.94
	3.60	2.98	3.37	3.75	2.90	2.49	3.50	3.28	3.02	0.0	0.0	0.0	2.31
Asparagine	11.80	10.77	11.29	13.15	11.45	12.33	9.45	10.82	11.22	0.0	0.0	0.0	12.15
	4.92	2.52	3.78	3.98	2.38	4.08	1.87	1.94	1.58	0.0	0.0	0.0	3.76
Glutamine	50.66	47.72	46.44	45.85	45.44	44.83	47.58	45.21	43.20	0.0	0.0	0.0	39.97
	10.34	7.97	10.55	8.29	7.56	8.50	7.60	8.00	7.80	0.0	0.0	0.0	10.18
Glutamate	24.37	23.27	24.63	24.58	23.70	23.34	22.99	25.26	25.24	0.0	0.0	0.0	31.51
	5.57	6.30	6.97	6.52	7.38	7.22	7.23	4.83	5.80	0.0	0.0	0.0	0.85
Proline	11.19	10.42	12.41	12.08	11.90	11.53	10.96	10.15	9.18	0.0	0.0	0.0	7.89
	2.55	1.73	2.60	2.44	1.75	2.29	1.11	1.12	1.38	0.0	0.0	0.0	1.92
Glycine	27.08	26.79	27.39	28.67	28.02	29.29	27.66	27.21	26.80	0.0	0.0	0.0	23.52
	3.99	3.50	4.42	4.81	5.32	3.07	5.21	6.09	5.55	0.0	0.0	0.0	1.97
Alanine	29.76	31.08	31.92	31.62	34.20	33.82	30.88	27.96	27.67	0.0	0.0	0.0	23.50
	2.04	3.05	4.84	3.86	4.31	3.87	1.19	4.55	3.12	0.0	0.0	0.0	1.45
A-Aminobut.	0.99	0.88	0.75	0.64	0.63	0.61	0.91	0.66	0.75	0.0	0.0	0.0	0.67
	0.77	0.64	0.19	0.21	0.33	0.17	0.74	0.21	0.21	0.0	0.0	0.0	0.20

TABLE XXIII Erythrocyte amino acid levels (umoles/100 gm) in PKU HETEROZYGOTES given 34 mg/kg APM
RBC AMINO ACIDS, DOSE = 34 # SUBJECTS = 4

	0.0	0.25	0.50	0.75	1.00	1.50	2.00	3.00	4.00	5.00	6.00	7.00	8.00
Valine	15.50	16.34	16.03	15.10	13.56	13.22	13.72	14.92	15.39	0.0	0.0	0.0	15.15
	0.58	0.41	1.35	1.54	1.14	0.79	0.37	0.34	1.21	0.0	0.0	0.0	0.50
Cystine	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Methionine	0.57	0.53	0.54	0.48	0.38	0.35	0.37	0.45	0.41	0.0	0.0	0.0	0.0
	0.66	0.61	0.63	0.56	0.45	0.42	0.43	0.52	0.47	0.0	0.0	0.0	0.0
Isoleucine	3.10	3.43	3.33	2.32	1.97	1.93	2.14	2.32	2.41	0.0	0.0	0.0	3.13
	0.94	1.60	1.50	0.76	0.85	0.85	0.52	0.65	0.71	0.0	0.0	0.0	0.18
Leucine	7.21	6.83	6.66	5.63	5.00	4.66	5.13	5.90	6.26	0.0	0.0	0.0	7.39
	0.82	0.96	1.16	0.98	1.32	0.71	1.06	0.62	0.73	0.0	0.0	0.0	0.56
Tyrosine	3.13	2.95	3.62	3.65	3.66	3.66	3.34	3.60	3.18	0.0	0.0	0.0	2.93
	0.73	0.49	1.30	1.40	1.36	1.09	0.67	0.87	0.52	0.0	0.0	0.0	0.88
Phenylalanine	4.03	6.03	9.62	9.10	8.92	8.16	7.32	6.56	5.35	0.0	0.0	0.0	4.42
	1.05	1.21	2.36	2.16	1.28	1.26	0.49	1.47	1.23	0.0	0.0	0.0	0.59
Ornithine	9.06	9.58	10.50	10.39	9.44	9.79	8.38	8.73	8.34	0.0	0.0	0.0	9.60
	3.27	4.07	4.90	4.89	4.34	4.15	3.42	3.15	2.64	0.0	0.0	0.0	0.11
Lysine	11.18	10.31	10.51	9.71	9.35	9.78	9.22	9.55	9.19	0.0	0.0	0.0	9.46
	1.79	1.91	2.33	1.76	1.69	1.82	1.68	1.45	1.50	0.0	0.0	0.0	1.17
Histidine	7.57	6.76	7.30	6.88	6.79	6.66	6.26	6.49	6.16	0.0	0.0	0.0	6.36
	1.15	0.65	1.19	1.01	0.86	0.74	0.81	0.80	0.69	0.0	0.0	0.0	1.00
Arginine	1.59	1.63	1.87	1.96	1.77	1.32	1.61	1.29	1.01	0.0	0.0	0.0	1.36
	0.82	0.71	0.97	1.06	0.98	0.76	1.02	0.70	0.43	0.0	0.0	0.0	0.71

TABLE XXV Blood Methanol Levels In Normal Subjects Administered Aspartame.

General Comments:

Study 1: Aspartame (34 mg/kg) vs aspartate (13 mg/kg). Blood samples for methanol were obtained and assayed by the gas-chromatographic method. The original method used by Tephly's lab, was set up to measure very high methanol levels as part of their studies on methanol toxicology. As a result, the sensitivity of the assay was such that small peaks were not noted. In our studies, we used a much higher sensitivity setting, picking up some noise in the baseline. At times, we noted a blood peak present which overlapped methanol. This peak was noted both in patients given a source of methanol (Aspartame) and those receiving no methanol source (aspartate). After some work, the temperature change program on the gas-chromatograph was worked out so that this peak did not interfere with the methanol analysis. The latter method was utilized for all other studies. Thus, the values listed for methanol under the 34 mg Aspartame and 13 mg aspartate study represent absolute maximal values.

Study 2: Blood methanol levels were not part of the 50 mg/kg Aspartame study. However, we carried out methanol analyses on 3 of the 6 patients studied. The results of these determinations have been included in order to give an estimate of the blood methanol range at this dose level.

Other Studies:

Methanol levels were not measured in PKU heterozygotes. In the 100, 150, and 200 mg/kg studies, methanol levels were measured by a gas-chromatograph modification in which the artifact peak coeluting with methanol was eliminated.

TABLE XXV Blood Methanol Levels In Normal Subjects Administered Aspartame.

General Comments:

Study 1: Aspartame (34 mg/kg) vs aspartate (13 mg/kg). Blood samples for methanol were obtained and assayed by the gas-chromatographic method. The original method used by Tephly's lab, was set up to measure very high methanol levels as part of their studies on methanol toxicology. As a result, the sensitivity of the assay was such that small peaks were not noted. In our studies, we used a much higher sensitivity setting, picking up some noise in the baseline. At times, we noted a blood peak present which overlapped methanol. This peak was noted both in patients given a source of methanol (Aspartame) and those receiving no methanol source (aspartate). After some work, the temperature change program on the gas-chromatograph was worked out so that this peak did not interfere with the methanol analysis. The latter method was utilized for all other studies. Thus, the values listed for methanol under the 34 mg Aspartame and 13 mg aspartate study represent absolute maximal values.

Study 2: Blood methanol levels were not part of the 50 mg/kg Aspartame study. However, we carried out methanol analyses on 3 of the 6 patients studied. The results of these determinations have been included in order to give an estimate of the blood methanol range at this dose level.

Other Studies:

Methanol levels were not measured in PKU heterozygotes. In the 100, 150, and 200 mg/kg studies, methanol levels were measured by a gas-chromatograph modification in which the artifact peak coeluting with methanol was eliminated.

TABLE XXIV

PLASMA PHENYLALANINE LEVELS UNDER VARIOUS CONDITIONS

	<u>μMOLES/DL</u>	<u>MG %</u>
<u>NORMAL SUBJECTS</u>		
FASTING	6 ± 3	1 ± 0.5
POSTPRANDIAL	12 ± 3	2 ± 0.5
<u>PHENYLALANINEMIA</u>		
CLASSICAL PKU	180 - 600	30 - 100
QUESTIONABLE VARIANTS	60 - 120	10 - 20
BENIGN VARIANTS	24 - 48	4 - 8
<u>AFTER ASPARTAME LOADING AT 34 MG/KG</u>		
NORMAL SUBJECTS	11 ± 3	1.8 ± 0.5
PKU HETEROZYGOTES	15.7 ± 1.5	2.6 ± 0.3

TABLE XXV Blood Methanol Levels In Normal Subjects Administered Aspartame.

General Comments:

- Study 1: Aspartame (34 mg/kg) vs aspartate (13 mg/kg). Blood samples for methanol were obtained and assayed by the gas-chromatographic method. The original method used by Tephly's lab, was set up to measure very high methanol levels as part of their studies on methanol toxicology. As a result, the sensitivity of the assay was such that small peaks were not noted. In our studies, we used a much higher sensitivity setting, picking up some noise in the baseline. At times, we noted a blood peak present which overlapped methanol. This peak was noted both in patients given a source of methanol (Aspartame) and those receiving no methanol source (aspartate). After some work, the temperature change program on the gas-chromatograph was worked out so that this peak did not interfere with the methanol analysis. The latter method was utilized for all other studies. Thus, the values listed for methanol under the 34 mg Aspartame and 13 mg aspartate study represent absolute maximal values.
- Study 2: Blood methanol levels were not part of the 50 mg/kg Aspartame study. However, we carried out methanol analyses on 3 of the 6 patients studied. The results of these determinations have been included in order to give an estimate of the blood methanol range at this dose level.

Other Studies:

Methanol levels were not measured in PKU heterozygotes. In the 100, 150, and 200 mg/kg studies, methanol levels were measured by a gas-chromatograph modification in which the artifact peak coeluting with methanol was eliminated.

Table XXV Blood Methanol Levels (Mg %) In Normal Subjects Administered Aspartame or Aspartate

SUBJECT	34 MG/KG ASPARTAME										
	0 hr	0.25	0.50	0.75	1.0	1.5	2.0	3.0	4.0	8.0	24.0 hrs
KC	**	**	**	**	**	**	0.50	0.57	0.43	0.59	0.30
TVG	**	**	**	**	**	**	**	**	**	**	**
VS	**	**	**	**	**	0.43	**	**	**	0.43	**
KP	**	0.43	**	**	**	0.43	**	**	**	**	1.03
LS	**	**	**	**	**	**	**	**	**	**	**
DS	0.32	**	0.41	0.45	0.39	0.36	0.62	**	**	**	**
MM	0.46	**	0.43	**	**	**	0.43	**	**	**	**
DB	**	**	0.44	0.52	0.58	0.40	**	**	**	**	**
MW	**	**	**	**	0.30	0.40	**	**	**	**	**
PM	**	**	**	0.46	1.84†	0.78	**	**	**	**	**
CM	**	**	0.32	0.49	0.49	**	0.30	**	**	**	**
AW	**	0.32	**	**	**	**	**	**	**	**	**

† This sample was reassayed later using a better column, and assayed at 0.35 mg%

SUBJECT	13 MG/KG ASPARTATE										
	0 hr	0.25	0.50	0.75	1.0	1.5	2.0	3.0	4.0	8.0	24 Hours
KC	**	**	**	**	**	**	**	**	**	**	**
TVG	**	**	**	**	**	**	**	**	**	**	**
VS	0.73	0.65	0.88	0.50	**	**	0.39	**	**	**	0.41
KP	**	**	**	0.38	0.61	0.51	0.51	0.41	**	**	**
LS	0.83	**	0.73	**	**	0.84	**	0.78	**	**	**
DS	**	0.45	**	**	**	**	**	**	**	**	0.45
MM	**	0.61	0.77	0.86	0.43	0.43	**	**	**	0.81	**
DB	**	**	0.54	**	0.43	0.38	**	**	**	**	**
MW	**	**	**	**	**	**	0.49	0.49	**	**	**
PM	**	**	0.30	0.48	**	**	**	**	**	**	**
CM	**	**	**	**	**	**	**	**	**	**	**
AW	**	0.30	**	**	**	**	**	**	**	**	**

** Level of detection in early studies was 0.27 mg%. In addition, this early method often had other compounds which eluted under methanol. Thus, the values listed represent absolute maximal amounts and in most cases are not methanol.

Table XXV Blood Methanol Levels (MG %) In Normal Subjects Administered Aspartame or Lactose.

Subject	50 MG/KG LACTOSE								
	0 Hrs	0.25	0.50	0.75	1.0	1.5	2.0	3.0	4.0 Hours
BUET	**	**	**	**	**	**	**	**	**
MEAD	**	**	**	**	**	**	**	**	**
DEPR	**	**	**	**	**	**	**	**	**

Subject	50 MG/KG ASPARTAME								
	0 Hrs	0.25	0.50	0.75	1.0	1.5	2.0	3.0	4.0 Hours
BUET	**	**	**	**	0.27	0.31	**	**	**
MEAD	**	**	0.31	0.46	0.68	0.77	NA	0.68	**
DEPR	**	**	**	0.27	**	0.27	**	0.41	0.27

** Level of detection is about 0.25 mg%. Values listed in this manner have a level below this quantity.

TABLE XXV Blood Methanol Levels (mg %) in Normal Subjects Administered Aspartame

100 MG/KG IN SOLUTION														
Subject	0 hr	0.25	0.50	0.75	1.00	1.50	2.00	3.00	4.00	5.00	6.00	7.00	8.00	24.0
JF	0.00	0.20	0.39	0.36	0.51	0.71	1.13	0.74	0.64	0.55	0.21	0.05	0.05	0.00
KS	0.00	0.29	0.82	0.89	0.99	1.12	1.00	0.82	0.90	0.60	0.09	0.05	0.00	0.00
LS	0.00	0.07	0.51	0.54	1.04	0.68	0.91	0.77	0.58	0.37	0.21	0.04	0.04	0.00
RW	0.00	0.48	0.22	1.76	1.81	1.65	0.95	1.10	0.87	0.75	0.15	0.21	0.00	0.00
NW	0.00	0.12	0.48	0.90	0.98	1.21	1.11	0.99	0.76	0.12	0.10	0.00	0.00	0.00
RW	0.00	0.33	1.10	0.84	1.60	0.98	0.92	0.29	0.00	0.00	0.07	0.00	0.00	0.00
Mean	0.00	0.25	0.60	0.88	1.16	1.06	1.00	0.79	0.63	0.40	0.14	0.058	0.015	0.00
± Std Deviat.	0.00	0.15	0.31	0.48	0.47	0.36	0.095	0.28	0.33	0.29	0.06	0.077	0.023	0.00
100 MG/KG IN SLURRY														
Subject	0 hr	0.25	0.50	0.75	1.00	1.50	2.00	3.00	4.00	5.00	6.00	7.00	8.00	24.0
JF	0.00	0.37	1.07	1.00	1.23	1.04	1.10	1.00	0.83	0.73	0.01	0.02	0.00	0.00
KS	0.00	0.00	0.40	0.68	1.10	1.35	1.24	0.61	0.36	0.00	0.00	0.00	0.00	0.00
LS	0.00	0.00	0.00	0.00	0.00	0.73	0.84	1.08	1.50	0.77	0.42	0.05	0.00	0.00
RW	0.00	0.00	1.01	1.33	1.74	2.12	1.10	0.65	0.52	0.37	0.05	0.00	0.00	0.00
NW	0.00	0.00	0.73	NA	0.93	1.00	1.48	0.94	0.41	0.39	0.34	0.34	0.13	0.00
RW	0.05	0.49	1.36	1.84	1.03	1.38	1.07	0.44	0.19	0.08	0.03	0.00	0.00	0.00
Mean	0.008	0.09	0.76	0.97	1.00	1.27	1.14	0.79	0.64	0.39	0.14	0.07	0.02	0.00
± S.D.	0.02	0.18	0.50	0.69	0.57	0.48	0.21	0.26	0.47	0.32	0.19	0.13	0.05	0.00

TABLE XXV Blood Methanol Levels (Mg %) In Normal Subjects Administered Aspartame.

Subject	0 hr	150 MG/KG IN SOLUTION												24 Hr.
		0.25	0.50	0.75	1.0	1.5	2.0	3.0	4.0	5.0	6.0	7.0	8.0	
KG	0.00	0.00	0.94	1.41	1.21	1.75	2.07	1.60	0.84	0.62	0.15	0.06	0.08	0.00
JW	0.00	0.14	1.16	1.18	1.59	2.39	1.12	1.39	1.35	1.05	0.52	0.71	0.08	0.00
MM	0.00	0.32	0.71	0.71	1.12	2.16	2.41	2.47	1.60	1.20	0.90	0.62	0.40	0.00
AKH	0.04	0.72	0.84	1.19	1.43	1.88	2.25	2.02	1.83	0.89	0.46	0.38	0.28	0.00
KH	0.00	0.75	1.05	1.48	1.22	2.68	1.83	2.11	1.64	1.01	0.63	0.56	0.39	0.00
LM	0.00	0.67	2.20	1.71	2.37	1.95	1.81	1.43	0.73	0.73	0.79	0.43	0.30	0.00
Mean	0.006	0.43	1.15	1.28	1.49	2.14	1.91	1.84	1.33	0.92	0.58	0.46	0.26	0.00
± S.D.	0.016	0.32	0.54	0.34	0.46	0.35	0.45	0.43	0.45	0.21	0.27	0.23	0.14	0.00

Subject	0 hr	200 MG/KG IN SOLUTION												2± Hr
		0.25	0.50	0.75	1.0	1.5	2.0	3.0	4.0	5.0	6.0	7.0	8.0	
GB	0.00	0.47	1.68	2.15	2.46	2.38	2.38	2.26	1.52	1.25	0.51	0.40	0.31	0.00
RF	0.00	0.00	0.11	1.21	0.76	3.14	2.43	1.46	1.39	1.02	0.00	0.00	0.00	0.00
SH	0.12	0.90	1.05	1.55	3.67	3.59	4.11	2.07	1.68	0.82	0.70	0.39	0.27	0.00
MH	0.22	1.13	1.83	2.03	1.83	2.34	2.38	2.22	1.40	0.94	0.78	0.66	0.31	0.00
SWK	0.00	0.49	0.70	0.98	1.33	1.52	1.83	1.68	1.25	0.94	0.90	0.82	0.51	0.18
CW	0.00	0.41	1.13	1.03	2.71	2.35	2.32	1.84	1.17	0.23	0.00	0.00	0.00	0.00
Mean	0.056	0.58	1.08	1.49	2.13	2.55	2.58	1.92	1.40	0.87	0.43	0.38	0.23	0.03
± S.D.	0.093	0.40	0.63	0.51	1.04	0.72	0.78	0.32	0.18	0.34	0.39	0.33	0.20	0.073

APPENDIX 1

CALCULATIONS OF GLUTAMATE, ASPARTATE, PHENYLALANINE AND TYROSINE
INTAKE IN HUMAN BREAST-FED INFANTS

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BASIC DATA USED IN MAKING THE CALCULATIONS AND REFERENCES

BREAST MILK INTAKE IN HUMAN INFANTS (1)

3.5 Kg infant ingests a mean volume of 600 ml/day, with the 90% confidence limits being 400-800 ml/day.

5.5 Kg infant ingests a mean volume of 850 ml/day, with the 90% confidence limits being 700-1000 ml/day.

FREE AMINO ACID CONTENT OF HUMAN BREAST MILK (2)

Glutamate	150 umoles/dl	22 mg%
Aspartate	5 umoles/dl	0.67 mg%
Phenylalanine	1.44 umoles/dl	0.24 mg%
Tyrosine	1.25 umoles/dl	0.23 mg%

AMINO ACID CONTENT IN PROTEIN OF HUMAN BREAST MILK (3)

Total Glutamate*	230 mg%
Total Aspartate**	116 mg%
Corrected Glutamate†	133 mg%
Corrected Aspartate‡	64 mg%
Phenylalanine	48 mg%
Tyrosine	61 mg%

FOOTNOTES

* Total after hydrolysis, includes glutamine.

** Total after hydrolysis, includes asparagine.

† Corrected using the data of Jukes et al. (4) which indicate that 58% of the total glutamate released from an average protein upon hydrolysis comes from glutamate, while 42% comes from glutamine.

‡ Corrected using the data of Jukes et al. (4) which indicate that 55% of the total aspartate released from an average protein upon hydrolysis comes from aspartate while 45% comes from asparagine.

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GLUTAMATE AND ASPARTATE INTAKE IN BREAST-FED INFANTS

BREAST MILK INTAKE

<u>INFANT SIZE</u>	<u>MEAN</u> ml/kg/dy	<u>RANGE</u>
3.5 Kg	171	114-228
5.5 Kg	154	127-200

FREE GLUTAMATE INTAKE

<u>INFANT SIZE</u>	<u>TOTAL DAILY INTAKE</u>		<u>INTAKE PER MEAL (6/DAY)</u>	
	<u>MEAN</u> mg/kg	<u>RANGE</u>	<u>MEAN</u> mg/kg	<u>RANGE</u>
3.5 Kg	38	25-50	6.5	5-10
5.5 Kg	34	28-44	5.7	4.7-7.4

FREE ASPARTATE INTAKE

<u>INFANT SIZE</u>	<u>TOTAL DAILY INTAKE</u>		<u>INTAKE PER MEAL (6/DAY)</u>	
	<u>MEAN</u> mg/kg	<u>RANGE</u>	<u>MEAN</u> mg/kg	<u>RANGE</u>
3.5 Kg	1.15	0.76-1.52	0.19	0.13-0.25
5.5 Kg	1.03	0.85-1.34	0.17	0.14-0.22

TOTAL PROTEIN BOUND GLUTAMATE INTAKE

<u>INFANT SIZE</u>	<u>TOTAL DAILY INTAKE</u>		<u>INTAKE PER MEAL (6/DAY)</u>	
	<u>MEAN</u> mg/kg	<u>RANGE</u>	<u>MEAN</u> mg/kg	<u>RANGE</u>
3.5 Kg	393	262-524	65.5	44-87
5.5 Kg	354	292-460	59	49-77

TOTAL PROTEIN BOUND ASPARTATE INTAKE

<u>INFANT SIZE</u>	<u>TOTAL DAILY INTAKE</u>		<u>INTAKE PER MEAL (6/DAY)</u>	
	<u>MEAN</u> mg/kg	<u>RANGE</u>	<u>MEAN</u> mg/kg	<u>RANGE</u>
3.5 Kg	198	132-264	33	22-44
5.5 Kg	178	147-232	30	24.5-38.7

CORRECTED GLUTAMATE INTAKE--PROTEIN BOUND

<u>INFANT SIZE</u>	<u>TOTAL DAILY INTAKE</u>		<u>INTAKE PER MEAL (6/DAY)</u>	
	<u>MEAN</u> mg/kg	<u>RANGE</u>	<u>MEAN</u> mg/kg	<u>RANGE</u>
3.5 Kg	227	151-303	38	25-50.5
5.5 Kg	204	169-266	34	28-44

APPENDIX II

BREAST MILK PHENYLALANINE IN LACTATING WOMEN PREVIOUSLY
STUDIED BY STEGINK, L.D., FILER, L.J., JR., AND BAKER, G.L.,
PROC. SOC. EXPTL. MED. 140, 836 (1972).

BREAST MILK PHENYLALANINE LEVELS μ MOLES/DL

TIME (HRS)	LACTOSE WITH H ₂ O	MSG WITH SLENDER®	MSG WITH H ₂ O
0	1.23 \pm 0.35	1.22 \pm 0.56	0.90 \pm 0.54
1	1.25 \pm 0.19	1.04 \pm 0.48	1.03 \pm 0.20
2	1.41 \pm 0.28	1.53 \pm 0.57	1.20 \pm 0.30
3	1.44 \pm 0.20	1.64 \pm 0.45	1.09 \pm 0.27
4	1.39 \pm 0.42	1.46 \pm 0.55	1.04 \pm 0.28
6	1.55 \pm 0.42	1.60 \pm 0.29	1.51 \pm 0.48
12	1.79 \pm 0.38	1.55 \pm 0.52	1.90 \pm 0.58