EFSA explains zoonotic diseases

Listeria

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1. What is **Listeria?**

- Listeria is a group of bacteria that contains ten species. One of these, Listeria monocytogenes, causes the disease "listeriosis" in humans and animals. Although listeriosis is rare, the disease is often severe with high hospitalisation and mortality rates.
- Unlike many other food-borne bacteria, Listeria survives in salty environments and cold temperatures, as low as 2 to 4 °C.
- Listeria is found in soil, plants and water. Animals, including cattle, sheep and goats, can also carry the bacteria. Listeriosis is usually contracted by eating contaminated foods.
- Ready-to-eat foods such as smoked fish, ready-to-eat deli meats and soft cheeses are often the source of *Listeria* infections as their long shelf life is conducive to bacterial growth. This is an important factor as these foods are usually consumed without any additional cooking.

People who are most susceptible to *Listeria* infections are the elderly, pregnant women, newborn infants and people with weak immune systems.

 Symptoms of human listeriosis vary, ranging from mild flu-like symptoms, such as nausea, vomiting and diarrhea to more serious infections, such as meningitis and other potentially life-threatening complications.

2. How EFSA supports the EU's fight against *Listeria*

The European Food Safety Authority (EFSA) monitors the prevalence of *Listeria monocytogenes* in animals and foods and assesses risks posed by this bacteria for human health. Upon request, the Authority advises on measures to prevent the occurrence of and reduce levels of *Listeria* found in food (control measures). EFSA's findings are used by risk managers in the EU and Member States to help inform policy and to support the setting of possible reduction targets for *Listeria* in the food chain.

Annual monitoring of Listeria in the food chain EFSA collects and analyses EU-wide data on the presence of Listeria monocytogenes in the food chain. The European Centre for Disease Prevention and Control (ECDC) does the same for listeriosis cases in humans. Findings are published in annual EU Summary Reports.

- EU-wide surveys on the prevalence of *Listeria*
- EFSA produced a report on the EU-wide baseline survey on *Listeria monocytogenes* in ready-to-eat fish products (packaged, hot-smoked or cold-smoked and cured fish), packaged heat-treated meat products (such as cooked sliced ham, cooked chicken fillet and pâtés) and soft or semi-soft cheeses. EFSA also looks at risk factors that contribute to the presence of *Listeria* in the food categories concerned and the factors favouring its growth in fish.
- **Risk assessments and recommendations**EFSA's Panel on Biological Hazards evaluates the food safety risks associated with *Listeria monocytogenes* and provides scientific advice on control measures at the request of risk managers or on its own initiative



3. EFSA cooperates with **key EU actors** to reduce listeriosis in humans

In its scientific advice published in 2008, EFSA's Panel on Biological Hazards recommended to investigate listeriosis cases more thoroughly, and to generate and analyse data on the consumption in the EU of ready-to-eat foods that support the growth of *Listeria monocytogenes*.

Using the technical specifications proposed by EFSA, a European Union-wide baseline survey on *Listeria monocytogenes* in ready-to-eat foods at retail was carried out from January 2010 to January 2012.

EFSA will continue to assist European and national risk managers in monitoring and evaluating the prevalence of *Listeria* in animals and foods and, upon request, provide scientific advice on control measures. EFSA, ECDC and Member States will also collect information on molecular characteristics of *Listeria* strains in foods, animals and humans.

4. EU cooperation for protecting public health

To protect consumers from this and other potential public health threats, the EU has adopted an integrated approach to food safety from farm to fork. The approach consists of risk assessment and risk management measures involving all key actors: EU Member States, European Commission, European Parliament, EFSA and ECDC. The approach is supported by timely and effective risk communication activities.

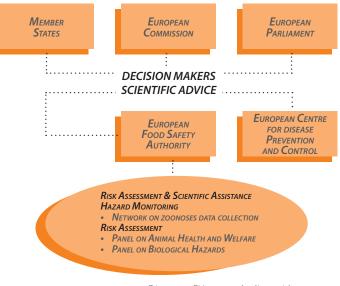


Diagram: EU actors dealing with zoonoses

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Did you know?

- About 1,640 listeriosis cases in humans were reported in the European Union in 2012, with a mortality rate of 17.8%.
- Listeria monocytogenes was found in 10.3% of fishery products, 2.1% of heat-treated meat products and 0.5% of soft and semi-soft cheese samples collected from supermarkets and shops across the EU, according to EFSA's analysis of an EU-wide baseline survey carried out from January 2010 to January 2012.
- The proportion of samples from foods at the end of their shelf-life that exceeded the legal food safety limit (100 bacteria per gram) was low: 1.7% of fish, 0.4% of meat and 0.06% of cheese samples. However, overall vigilance regarding the possible presence of this bacterium in food is warranted.
- Good manufacturing practices, hygiene practices and effective temperature control throughout the food production, distribution and storage chain - including in the home - can limit the growth of *Listeria* should it be present in ready-to-eat foods.
- National food safety agencies in the EU provide practical advice to consumers regarding food and kitchen hygiene and generally recommend that refrigerators are set between 0°C and 5°C, in line with advice provided by the World Health Organisation.



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