

Insights into the presence of *Listeria monocytogenes* in certain ready-to-eat foods

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The European Food Safety Authority recently published the findings from a European Union (EU) survey on the presence of *Listeria monocytogenes* in certain ready-to-eat foods, i.e. fish (hot smoked, cold smoked or gravad fish), packaged heat-treated meat products and soft and semi-soft cheeses. Overall, the proportion of samples exceeding the legislative limit for *Listeria monocytogenes* in ready-to-eat foods was low. However, considering the popularity of these foods and the severe implications that infection with *Listeria monocytogenes* can have on health, vigilance is required by everyone in the food chain.

Listeriosis is the illness caused by the bacterium *Listeria monocytogenes*. Symptoms range from mild flu-like symptoms, such as nausea, vomiting and diarrhoea; to more serious infections such as meningitis and other potentially life threatening complications. People most susceptible to infection include the elderly, pregnant women, infants and people with weakened immune systems such as cancer and AIDS patients. Although listeriosis is rare, the illness is associated with high mortality rates. In 2011 1,470 human cases were reported in the EU and the mortality rate was 12.7%.

Listeria monocytogenes can be transmitted directly from infected animals to humans as well as between humans; however, the consumption of contaminated food is believed to be the main route of transmission. *Listeria monocytogenes* can be found in raw foods and in processed foods that are contaminated during and/or after processing. The ability of this bacterium to grow at low temperatures makes its presence in ready-to-eat foods with a relatively long shelf-life, such as fishery products, heat-treated meat products and cheese, of particular concern. The risk for human health arises from exposure to foods contaminated with *L. monocytogenes* at levels greater than 100 colony forming units (cfu) per gram of food. To protect public health, EU legislation specifies that ready-to-eat foods exceeding this level during their shelf-life are unsafe and must be withdrawn or recalled from the market. As a consequence, food business operators are legally obliged to take measures, as part of their food safety management system, to ensure compliance with this limit.

This survey was conducted in 2010 and 2011 with the aim of estimating the EU prevalence of *Listeria monocytogenes* in certain ready-to-eat foods. The foods sampled were packaged fish (3,053 samples), i.e. smoked fish (hot or cold smoked) or gravad fish (cured in salt and sugar without thermal treatment); packaged heat-treated meat products (3,530 samples) and soft or semi-soft cheeses (3,452 samples). Sampling was conducted in 3,632 retail outlets in 26 EU Member States, plus Norway. Overall, *Listeria monocytogenes* was detected in 10.3% of fish, 2.1% of meat and 0.5% of cheese samples. However, only 1.7% of fish, 0.4% of meat and 0.06% of cheese samples exceeded the legislative limit of 100cfu/g.

The report concluded that the proportion of food samples exceeding the legislative limit was low. However, considering the popularity of these foods and the severe implications of listeriosis, particular vigilance is warranted by everyone in the food chain. Good manufacturing practices, good hygiene practices and



effective temperature control are required to prevent contamination of *Listeria monocytogenes* or prevent its growth to levels exceeding 100cfu/g. These measures should form an integral part of the food businesses food safety management system. Consumers should pay particular attention to storage conditions and must respect use-by dates as *Listeria monocytogenes* can grow at refrigeration temperatures. Vulnerable groups are also advised to follow national guidelines regarding the consumption of food which pose a high risk of contamination with *Listeria monocytogenes*.

For further information see:

[European Food Safety Authority \(2013\). Analysis of the baseline survey on the prevalence of *Listeria monocytogenes* in certain ready-to-eat foods in the EU, 2010-2011 Part A: *Listeria monocytogenes* prevalence estimates. EFSA Journal 2013;11\(6\):3241](#)

EUFIC Food Today (2013). Food industry standards – focus on HACCP. February 2013

EUFIC Food Today (2011). Food safety controls in the European Union. November 2011