

Advice for pregnant women, the elderly and anyone with suppressed immunity

What is Listeria infection?

Listeria infection or listeriosis, is an illness usually caused by eating food contaminated with bacteria known as *Listeria monocytogenes*.

Who is at risk of Listeria infection?

Listeria infection can affect people differently. Healthy people may develop few or no symptoms. However, for some people, the infection can be serious enough to require hospitalisation and may be a threat to life.

People who are at particular risk of infection include:

- anyone whose immune system has been weakened by disease or illness, for example:
 - cancer
 - leukaemia
 - diabetes
 - AIDS
 - liver disease
 - kidney disease (including those on dialysis)
- the elderly
- pregnant women and their unborn babies
- anyone on medication such as prednisone or cortisone as this can also suppress the immune system. This includes organ transplant patients.
- newborn babies.

What are the symptoms?

Healthy people may not be affected at all. In persons at risk, symptoms may include fever, headache, tiredness, aches and pains. These symptoms may progress to more serious forms of the illness, such as meningitis (brain infection) and septicaemia (blood poisoning). Less common symptoms are diarrhoea, nausea and abdominal cramps. After eating contaminated food, on average, symptoms appear after about three weeks but can occur from 3 to 70 days.

In pregnant women, Listeria infection is usually a mild illness. A high temperature before or during labour may be the only sign. However, even a mild form of the illness can affect the unborn baby (foetus) and can lead to miscarriage, stillbirth, premature birth or a very ill baby at birth.

Infected individuals can excrete the bacteria in their faeces for several months.

How common is Listeria infection?

Listeria infection is relatively uncommon. However, the fatality rate can be as high as 30 per cent amongst at-risk people.

Can Listeria infection be treated?

Yes, Listeria infection can be treated successfully with antibiotics if treatment is started early.

Where is Listeria found?

Listeria bacteria are widespread and commonly found in soil, silage, sewage, birds and animals. They have also been found in a variety of foods, including raw meat, raw vegetables and some processed foods. Sometimes, it is not possible to identify which particular food caused a person's illness as symptoms may not appear for 3 to 70 days after eating contaminated food.

Outbreaks of Listeria infection due to foods such as soft cheeses, milk, coleslaw, hot dogs and paté have been reported in Europe, America and Australia.

How can I avoid Listeria infection?

As Listeria bacteria are commonly found in the environment, they are impossible to eradicate. Some exposure to the bacteria is unavoidable. Most people are, however, at low risk of Listeria infection.

Prevention is better than cure

People at risk from Listeria infection can reduce their risk of infection by:

- saying no to high risk foods (see over)
- always handling food safely (see over)
- avoiding contact with any animal afterbirth (placenta) and with aborted animal fetuses, as listeria infection has been known to cause illness and abortion in animals.

High risk foods

These foods should be avoided:

- ready-to-eat seafood such as smoked fish and smoked mussels, oysters or raw seafood such as sashimi or sushi
- pre-prepared or pre-packaged fruit and vegetable salads including those available from buffets, salad bars and sandwich bars
- drinks made from fresh fruit and/or vegetables where washing procedures are unknown (excluding pasteurised or canned juices)
- deli meats which are eaten without further cooking or heating, such as paté, ham, strass and salami, and cooked diced chicken (as used in sandwich shops)
- any unpasteurised milk or foods made from unpasteurised milk
- soft serve ice-creams
- soft cheeses, such as brie, camembert, ricotta and feta (these are safe if cooked and served hot)
- ready-to-eat foods, including leftover meats, which have been refrigerated for more than one day
- dips and salad dressings in which vegetables may have been dipped
- raw vegetable garnishes.

Safe foods

These include:

- freshly prepared foods, to be eaten immediately
- freshly cooked foods, to be eaten immediately
- hard cheeses, cheese spreads, processed cheese
- milk—freshly pasteurised and UHT
- yoghurt
- canned and pickled food.

Safe food handling and storage

Safe food handling and safe storage of food are important for everyone. To anyone at risk of the serious complications of Listeria infection, such practices are especially important. Unlike most other food-contaminating bacteria, Listeria can grow in the refrigerator. However, Listeria bacteria are readily killed during cooking. You can reduce the risk of developing Listeria infection and other food-borne illnesses, such as gastroenteritis, by following some basic food hygiene and food storage rules:

- wash your hands before preparing food and between handling raw and ready-to-eat foods
- keep all food covered

- place all cooked food in the refrigerator within one hour of cooking
- store raw meat, raw poultry and raw fish on the lowest shelves of your refrigerator to prevent them dripping onto cooked and ready-to-eat foods
- keep your refrigerator clean and the temperature below 5°C
- strictly observe use-by or best-before dates on refrigerated foods
- do not handle cooked foods with the same utensils (tongs, knives, cutting boards) used on raw foods, unless they have been thoroughly washed with hot soapy water between uses
- all raw vegetables, salads and fruits should be well washed before eating or juicing, and consumed fresh
- defrost food by placing it on the lower shelves of a refrigerator or use a microwave oven
- thoroughly cook all food of animal origin, including eggs
- keep hot foods hot (above 60°C) and cold foods cold (at or below 5°C)
- reheat food until the internal temperature of the food reaches at least 75°C (piping hot)
- when using a microwave oven, read the manufacturer's instructions carefully, and observe the recommended standing times to ensure the food attains an even temperature before it is eaten.

Any other questions?

For further advice, contact your local doctor, specialist, community health centre or maternal and child health nurse.

Language assistance may be gained through TIS, the Translating and Interpreting Service: for the cost of a local call on 13 1450.

The following websites provide further information:

Food Standards Australia
www.foodstandards.gov.au

Centre for Diseases Control and Prevention (USA)
www.cdc.gov

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