

UNDERSTANDING LISTERIOSIS

The word 'listeriosis' has struck fear into the hearts of South Africans. According to the World Health Organisation (WHO), South Africa's current outbreak is the largest ever reported worldwide. Anybody can contract listeriosis but it is a preventable and curable disease.

According to a Situational Report on the listeria outbreak released by the National Institute for Communicable Diseases (NICD) on 25 January 2018, there are 820 laboratory-confirmed cases of listeriosis in the country. 66% of cases have been diagnosed in the public health care sector and 34% in private. 82 people have died.

Although cases had been identified in all nine provinces, Gauteng remained the province with the highest number. While infected chicken has been traced from a patient's home to a store and abattoir in Pretoria, the exact source of the current outbreak has not yet been established.

What is listeriosis?

Listeriosis is food poisoning that you contract after eating food infected with the *Listeria monocytogene* bacteria. The bacteria was discovered in 1926 by a South African bacteriologist, Dr Everitt Murray, who was working in Cambridge in England at the time. However, it was only recognised as a foodborne pathogen in the early 1980s.

The listeria bacteria is found in soil, water, vegetation and in the faeces of some animals. Food can become contaminated if it comes into contact with the bacteria. Contamination may occur on farms, at processing plants, in stores or during food preparation at home. Listeria can survive and multiply in a refrigerator but the bacteria is killed by cooking (75°C +) and pasteurisation.

What foods can be affected?

- › Fresh produce – fruit and vegetables may be contaminated through the soil or manure used as fertiliser

- › Meat and meat products
- › Seafood (refrigerated smoked and ready-to-eat products)
- › Dairy products, including unpasteurised milk or foods made with raw milk
- › Processed foods like soft cheese or ready-to-eat meats (contamination after processing)

The disease has an incubation period of between three days and 70 days. This means that if you eat contained food today, you may only develop symptoms some three weeks later. The delayed incubation period makes it difficult for people to remember what they ate and where it was purchased. This causes delays for authorities when trying to identify the source of the pathogen.

Symptoms

A person who eats contaminated food may become seriously ill, others may only get mildly ill or have no signs of sickness.

- › Flu-like symptoms – muscle aches, headaches etc.
- › Gastroenteritis symptoms – vomiting and diarrhoea
- › Weakness
- › Infection of the blood (septicaemia)
- › Infection of the brain (meningitis)

Diagnosis and treatment

A medical doctor evaluates the patient's symptoms and may suspect listeriosis based on them. A blood test can confirm listeria, as can a sample of body tissue, spinal fluid or the

placenta of a newborn. A test called a 'bacterial culture' is conducted in a laboratory to confirm the diagnosis.

A mild case of listeriosis will likely clear on its own but in severe cases or if the patient falls into one of the high risk groups (see the box), antibiotics may be prescribed. The patient may also receive fluids to prevent dehydration and medication for nausea and vomiting. If the patient is pregnant, a course of antibiotics is usually prescribed immediately.

Food safety guidelines

SHOPPING

- › When buying food, don't package meat and fish with fresh produce.
- › Use ready-to-eat meals by the 'use by' date.
- › Use deli salads the same day of purchase.



STORAGE

- › Set your fridge to 4°C and freezer to -18°C. Listeria can survive in refrigeration temperatures but grows more slowly at these lower temperatures.
- › Store leftovers in a sealed container in the fridge. When reheating, ensure that the food is heated all the way through. Don't use after three days.
- › Store deli meats (cold cuts, sausages etc.) in sealed containers in the fridge.



KITCHEN HYGIENE

- › Always wash your hands before you handle or prepare food (see box).
- › Regularly clean out your fridge and discard old produce and expired products. Wash surfaces with warm water and dishwashing liquid and dry with a paper towel.
- › If something spills in the fridge (especially liquid from meat and meat products) clean it up immediately.
- › Don't leave dishtowels and cleaning towels in the open for days. Regularly wash these on a hot cycle in the machine or soak in bleach.



FOOD PREPARATION

- › Always wash fresh produce thoroughly in water before eating.
- › Wash work surfaces before and after food preparation.
- › Do not place raw and cooked food together during preparation.
- › Cook food thoroughly – don't eat raw or undercooked foods.
- › Wash knives used to cut raw meat before chopping fresh produce.
- › Have two cutting boards – one for fresh produce and one for meat products. Wash thoroughly after every use.



PRECAUTION

- › Don't drink raw milk and only use pasteurised dairy products.
- › Pregnant women should avoid unpasteurised dairy products, soft cheeses, pâté, meat spreads, smoked seafood and any raw or partially cooked meats.
- › If you buy ready-to-eat meats from deli counters, ensure that it is properly heated.
- › Consume ready-to-eat foods/refrigerated foods by the use by date.



Resources: The World Health Organisation (www.who.int); Department of Health (www.health.gov.za); NICD – <http://www.nicd.ac.za>; <http://www.microbiology-matters.com/>; www.foodsafety.gov; www.webmd.com; www.fda.gov



WHO IS AT GREATER RISK?

Anyone can get listeriosis, but the disease may be more serious (possibly even fatal) in:

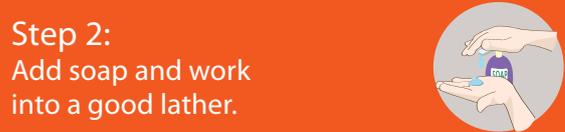
- › Newborn babies
- › Pregnant women (may cause miscarriage, stillbirth or illness in the newborn)
- › The elderly (65+)
- › Adults with compromised immune systems, including those with HIV/AIDS and cancer and those with kidney or liver disease.
- › Transplant patients (on medication to prevent organ rejection)

WASH YOUR HANDS!

Regularly washing your hands during food preparation and handling can prevent listeriosis.



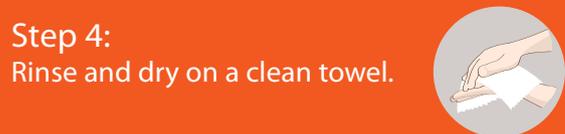
Step 1:
Wet your hands thoroughly under running water.



Step 2:
Add soap and work into a good lather.



Step 3:
Rub your hands together thoroughly, taking care to work between your fingers, wash the back of your hands and under your nails. The process should take about 20 seconds.



Step 4:
Rinse and dry on a clean towel.