

***E. coli* O157**



What is *E. coli* O157?

E. coli is the abbreviated name of the bacteria called *Escherichia coli*, that are a normal inhabitant of the large intestine of mammals and birds. The human intestine contains many bacteria necessary for us to maintain a normal and healthy life. However, certain strains of *E. coli* known as verocytotoxin-producing *E. coli* (VTEC), produce a potent poison, or toxin, which causes illnesses ranging from mild diarrhoea through to very severe inflammation of the gut. Occasionally this can cause complications such as kidney failure, and anaemia. The most important toxin-producing strain associated with human illness is known as *E. coli* O157.

How do you get infected with *E. coli* O157?

E. coli O157 bacteria are commonly found in the gut of cattle and other farm animals.

You can become infected by:

- eating infected food, mainly meat, unpasteurised milk and cheese.
- contact with infected animals, such as at farms or animal sanctuaries.
- contact with other people who have the illness, through inadequate hand washing after using the toilet, and/or before food-handling, particularly in households, nurseries and infant schools.
- eating unwashed vegetables which may have been infected by manure from infected cattle.
- drinking or swimming in infected water, such as river water, stream water or water from drinking wells.

How can you avoid getting infected with *E. coli* O157?

Handle food and drink safely

- Fully cook minced meat products like beefburgers or meat loaf so that they are coloured all the way through, and no blood runs from them.
- Keep cooked and uncooked meats separately; store uncooked meat on the bottom shelf of the fridge to avoid dripping raw meat juices onto other food.
- Never put cooked food back on a plate which has had fresh uncooked meat on it.
- Thoroughly wash all salads and vegetables that are to be eaten raw.
- Avoid eating and drinking unpasteurised milk and dairy products.
- Boil any drinking water if you are unsure of its source.
- Do not swim in water that may be contaminated

Personal hygiene is also very important. Thoroughly wash hands after using the toilet, handling raw meat, before meals and after contact with animals. Ensure children wash their hands with warm water and soap after contact with animals, particularly while on farm visits.

If someone has *E. coli* infection, wash all dirty clothes, bedding and towels in the washing machine on the hottest cycle possible. Clean toilet seats, toilet bowls, flush handles, taps and wash hand basins after use with detergent and hot water, followed by a household disinfectant.

If you have *E. coli* infection you should not prepare food for others.

What are the symptoms of *E. coli* O157, and how long do they last?

People infected with *E. coli* O157 can have one, some, or all of the following symptoms: diarrhoea – about 50% of people also have blood in their stools; stomach cramps; fever.

Some infected people may have mild diarrhoea or no symptoms at all. A very small number of patients may develop 'haemolytic uraemic syndrome' (HUS) which is associated with kidney failure, anaemia, and bleeding. Complications are more common in children under five years of age and the elderly.

On average, it takes three to four days for symptoms to develop after swallowing an infectious dose of *E. coli* O157. Symptoms can last up to two weeks, except in cases with complications. Most people get rid of the bacteria after about one week although children may continue to carry it for longer periods.

How do you treat *E. coli* O157 infection?

There is no specific treatment for *E. coli* O157 infection. It is important to drink plenty of fluids as diarrhoea can lead to dehydration and you can lose important sugars and minerals from your body. Your doctor may recommend a re-hydration solution, available from your pharmacist.

- If you feel sick, try taking small sips of fluid, frequently.
- Avoid tea, coffee, carbonated drinks or alcohol.
- Always dilute sugary drinks even if you would not normally dilute them.
- A simple painkiller like paracetamol can help combat any pain

Antibiotics have not been shown to be helpful and are likely to increase the risk of getting complications such as haemolytic uraemic syndrome (HUS). When complications develop, patients need to be admitted to hospital.

How long should you stay away from work or school?

Most adults, and children over five years, can go back to work or school 48 hours after the first normal stool. Children under five should stay away from nurseries and playgroups until they are shown to be completely clear of the bacteria and free from diarrhoea.

You must tell your employer if you have had *E. coli* O157 infection if you handle food, or work with vulnerable groups such as the elderly, the young, or people in poor health. These groups should stay off work until two further stool tests, at least 48 hours apart, show that the bacteria have cleared.

Also if you are a contact of a case and work in any of the above groups you may have to be excluded whilst a stool test is conducted to make sure you have not acquired the bacteria.

The Health Protection Agency and *E. coli* O157

We provide advice on controlling outbreaks. We work with Environmental Health Officers to look for the source of the infection; for example the food that is responsible, so that we can help to prevent other people from becoming infected. We also monitor outbreaks of *E. coli* O157 and look for any patterns or trends which show possible connections between the people who are affected.

For more information about the Health Protection Agency and *E. coli* O157 is available on our website at <http://www.hpa.org.uk>

If you have concerns about your health contact NHS Direct on 0845 4647, visit their website <http://www.nhsdirect.nhs.uk>, or see your family doctor.

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If you have any further questions,
please contact

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