

Local Resource No 2 - Escherichia coli (E coli) 0157

What is E Coli 0157?

E. coli 0157 is one of hundreds of strains of the bacterium Escherichia coli. Most strains are harmless and live in the intestines of humans and animals, but this strain produces a powerful toxin, which can cause severe illness. Escherichia coli (VTEC) is known as E. coli 0157 is found in the intestines of some cattle and other domesticated animals such as goats and also in the intestines of infected people.

What are the symptoms of infection with *E. coli* 0157?

E. coli O157 is often very mild, but some people develop diarrhoea, which can be severe and bloody, with abdominal cramps. A few cases (especially in children under 5 years of age and older people) may develop a complication called haemolytic uraemic syndrome, which is a form of kidney failure. They may need admitting to hospital for renal dialysis.

How is *E. coli* 0157 spread?

There are 3 main ways in which the infection can be spread to humans.

The bacteria are present in the faeces of some farm animals and this can contaminate the carcass during slaughter. *E. coli* 0157 present on the surface of meat can become mixed into the meat during the mincing process. The bacteria present in faeces may also contaminate udders and milking equipment and get into the raw milk.

The infection can be acquired during visits to farms and fields where farm animals live. Their microorganisms can be found in the general environment (e.g. gates, fences and soil) or contaminate salads and vegetables being grown in the vicinity. Faeces may also be picked up on shoes, clothing and fingers. Infection can develop if the bacteria are able to get into the mouth through poor hygiene or eating poorly washed salads and vegetables.

The infection can be passed from person to person by direct or indirect contact with the faeces of people with *E. coli* 0157 infection. This may happen within families, households, care homes and nurseries where equipment and the environment may become contaminated. Ingestion of a small number of organisms can cause illness.

How can the spread of *E. coli* 0157 be prevented?

- Don't eat undercooked meat products, e.g. beef burgers and minced beef.
- Thoroughly cook meat until the juices run clear.
- Drink only pasteurised milk.
- Wash hands before handling food, after using the toilet or changing nappies. Wash animal faeces from shoes and clothing, followed by hand washing. Follow recommended precautions for school visits to farms.
- In residential care, nurse in a single room with en-suite, or dedicated toilet facilities until diarrhoea has stopped for 48 hours (may need negative stools see below).

When can people with *E. coli* 0157 infection return to work/school/playgroup?

Most people must remain away until well and symptom free for 48 hours.

Certain individuals in high risk groups including service users and care workers in care homes and food handlers must remain away until 2 samples of faeces, obtained at least 48 hours apart, are negative.

Any household contact in a risk group will need to be tested and excluded from work or school. The Health Protection Unit will advise if this is necessary.

Further information can be found at:

Public Health England

<https://www.gov.uk/government/collections/escherichia-coli-e-coli-guidance-data-and-analysis>

Food Standards Agency

<https://www.food.gov.uk/safety-hygiene/e-coli>

Health & Safety Executive

<http://www.hse.gov.uk/campaigns/farmsafe/ecoli.htm>

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