



E. coli factsheet

What is VTEC or E. coli O157?

VTEC is the abbreviation used for Vero cytotoxin producing Escherichia coli of which O157 is the most common in the UK.

What are the symptoms of VTEC and how long do they last?

People infected with VTEC can have a combination of the following symptoms:

- diarrhoea (about 50% of cases have bloody diarrhoea)
- stomach cramps
- fever

Some people may have mild diarrhoea or even no symptoms at all (termed asymptomatic carriage).

Symptoms can last up to 2 weeks in cases without complications. A small proportion of patients, mainly children, may develop haemolytic uraemic syndrome (HUS) which is a serious life-threatening condition resulting in kidney failure. A small proportion of adults may develop a similar condition called thrombotic thrombocytopenic purpura (TTP).

How do you get infected with VTEC?

Cattle are the most important reservoir of VTEC O157 in the UK although VTEC have also been found in the faeces of a range of animals, including deer, rabbits, horses, pigs and wild birds.

People can become infected by:

- eating contaminated food (see below - How can I avoid being infected?)
- contact with infected animals either directly or through inadvertent contact with animal faeces (eg at farms, petting farms and campsites)
- contact with other people who have the illness (ie through inadequate hand hygiene after using the toilet and/or before food handling – particularly in households, nurseries and infant schools)

- drinking water from inadequately treated water supplies
- swimming or playing in contaminated water such as ponds or streams

Is it infectious?

VTEC are very infectious because very few bacteria are needed to cause illness. This means that disease can spread easily within families and in other settings such as day nurseries, primary schools, nursing homes and hospitals where there are young children and others who might have difficulty in keeping clean.

Infected food handlers pose a risk of contaminating food products and must be excluded from work to avoid spreading infection.

How can I avoid getting infected with VTEC?

Very few bacteria (possibly fewer than 100 individual cells) can cause disease and it is important to observe good hygiene practices relating to food and drink, and animals and their environment.

That means:

- cook all minced meat products (i.e. burgers, meatloaf, meat balls etc.) thoroughly, until the colour is the same all the way through, and no blood runs from them
- ensure refrigerators are working correctly- bacteria grow more quickly at temperatures over 4°C
- only leave cooked foods, meat and dairy products out at room temperature for a short time
- store uncooked meats below cooked meats and salad vegetables to avoid dripping juices onto ready to eat food
- store uncooked and cooked meats on different plates, avoid all contact between raw and cooked meats
- thoroughly wash all salad vegetables and do not prepare them with utensils that have also been used for raw meat
- children and the elderly who are particularly susceptible to the severe effects of VTEC should avoid eating or drinking unpasteurised dairy products
- people who have been ill should not prepare food for others for at least 48 hours after they have recovered
- boil any drinking water if you are unsure of its source
- do not swim in water that you think may be contaminated by cattle and sheep in nearby fields

- wash your hands* thoroughly after using the toilet (or helping others including changing nappies), handling raw meat, before meals and after contact with animals

On farm visits:

- avoid touching faces or putting fingers in mouths while in farm environments
- do not kiss farm animals nor allow children to put their faces close to animals
- wash hands* thoroughly with soap and water after touching animals, fences or other surfaces in animal areas
- do not eat or drink while touching animals or walking round the farm and only eat and drink in picnic areas or cafes
- wash hands* thoroughly with soap and water before eating or drinking
- remove and clean boots or shoes that might have become soiled and clean pushchair wheels then wash hands* thoroughly with soap and water

* Do not use gels or wipes instead of washing hands with soap and water. Gels and wipes do not remove E. coli O157. Supervise children closely to ensure that they wash their hands thoroughly.

Further advice on farm visits  [Avoiding infection on farm visits \(PDF, 1 MB\)](#)

If someone in the family has VTEC infection, wash all dirty clothes, bedding and towels in the washing machine on the hottest wash cycle possible. Clean toilet seats, toilet bowls, flush handles, taps, hand basins and any other areas that might have been soiled with detergent and hot water, rinsing with household disinfectant.

How do you treat VTEC?

There is no specific treatment for VTEC infection.

The illness is usually self-limiting, and will clear itself within a week. It is important to drink plenty of fluids as diarrhoea can lead to dehydration.

Antibiotics are not recommended, and are likely to increase the risk of getting complications such as HUS.

Do you need to stay off work or school?

You may be excluded from work/school or other institutional settings until 48 hours after you have stopped vomiting or having diarrhoea unless you belong to one of the following groups of people who should be screened for VTEC in their stools to confirm negativity prior to returning to work/school:

- those that cannot ensure personal hygiene at home, work or school
- those attending pre-school groups or nurseries
- those that prepare or serve unwrapped food that is not heated further
- healthcare workers with direct contact to highly susceptible patients, or patients for whom an infection like VTEC could have serious consequences

Public Health England and VTEC

PHE undertakes epidemiological investigations and provides advice for the control of VTEC outbreaks. Laboratory methods are used to type strains so that strains from cases can be compared with those isolated from suspect foods and other specimens collected during outbreak investigations.

We also look for any possible connections between the people who are infected. When a case is found, health protection specialists in Health Protection Teams across the country work with environmental health officers to identify how people became ill, and thus prevent other people from becoming infected. Where outbreaks are linked to contact with animals or their environment, we work closely with the Animal Health and Veterinary Laboratories Agency (AHVLA) to investigate the source.