

STEC and E. coli 0157

What is it?

STEC covers a group of E. coli bacteria which can have serious effects because they produce a toxin. The most common type of Shiga toxin-producing Escherichia coli (STEC) in the UK is 0157.

What are the symptoms of STEC?

People infected with STEC can have a combination of these 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 did I catch it?

Cattle are the most important reservoir of STEC O157 in the UK, although STEC 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;
- contact with infected animals either directly or through inadvertent contact with animal faeces, for example at farms, petting farms and campsites;
- contact with other people who have the illness (through inadequate hand hygiene after using the toilet, before food handling - particularly in households, nurseries and infant schools, or both);
- drinking water from inadequately treated water supplies;
- swimming or playing in contaminated water such as ponds or streams.

STEC 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.

Cleaning up the mess

- If you have to clear up diarrhoea or other mess, take care and wear rubber gloves. Scoop up what you can with a dustpan or paper towel. Rinse down a WC, don't use a sink that is used for food preparation or washing up. Wash what is left with cloths, and warm soapy water. Pour dirty water down a WC afterwards. Dispose of or clean all cloths and equipment with dilute bleach (1 eggcup in a small bucket of warm (not hot) water);
- Wash soiled sheets and clothing straight away. Fold them so that you don't touch the dirty parts. Wash on as hot a wash as possible. Do not over fill the washing machine;
- 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 to avoid getting infected with STEC

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.

You must:

- cook all minced meat products (burgers, meatloaf, meat balls) 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;
- avoid eating or drinking unpasteurised dairy products - children and the elderly are particularly susceptible to the severe effects of STEC;
- not allow people who have been ill to prepare food for others for at least 48 hours after they have recovered;
- boil any drinking water if you are unsure of its source;
- 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.

Farm visits

On farm visits you must:

- avoid touching faces or putting fingers in mouths while in farm environments;
 - not kiss farm animals or allow children to put their faces close to animals;
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- wash hands thoroughly with soap and water after touching animals, fences or other surfaces in animal areas;
- 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;
- not use gels or wipes instead of washing hands with soap and water - gels and wipes don't remove E. coli O157;
- supervise children closely to make sure they wash their hands thoroughly.

How is it treated?

There is no specific treatment for STEC 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.

Staying away from work, school or nursery

You may be excluded from work, school or other institutional settings until 48 hours after you've stopped vomiting or having diarrhoea. Your local Environmental Health Team will be able to advise you further.

If you belong to one of the following groups of people you will have to submit more faecal specimens to confirm that you are no longer excreting STEC in your stools prior to returning to work or 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 STEC could have serious consequences.

For further information please contact:

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