



Public Health
England

Protecting and improving the nation's health

Shiga toxin-producing *Escherichia coli* non-O157 STEC PCR

An information leaflet for cases

About Public Health England

Public Health England exists to protect and improve the nation's health and wellbeing, and reduce health inequalities. We do this through world-leading science, knowledge and intelligence, advocacy, partnerships and the delivery of specialist public health services. We are an executive agency of the Department of Health and Social Care, and a distinct delivery organisation with operational autonomy. We provide government, local government, the NHS, Parliament, industry and the public with evidence-based professional, scientific and delivery expertise and support.

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Hearing from Public Health England

The Public Health England (PHE) local Health Protection Team is contacting you because the result of the poo sample submitted by you or your child is positive for a bacterium called Shiga toxin-producing *Escherichia coli* (STEC), previously known as VTEC.

The local laboratory test has detected genetic material (DNA) of STEC bacteria, and has confirmed that you are unlikely to have STEC O157, the most common strain of STEC in the UK which often causes more serious illness, It is likely that your infection is caused by another strain of STEC that usually causes mild illness.

Many NHS laboratories send samples to the PHE reference laboratory in London for further tests to identify the exact strain. If further testing has been done, then in a few weeks the result will be sent to the doctor who arranged for your sample; and the Health Protection team or Environmental Health team may contact you for further information.

In the meantime, because some strains can cause serious illness and can be passed from person to person, we are contacting you to:

- identify potential sources of the infection
- provide some information on the infection and how you can prevent the spread of infection to others

Next steps

Please read the leaflet. If you have any concerns or questions that are not answered after reading the rest of this leaflet please contact your local Health Protection Team.

Symptoms

Most people get better within 5 to 7 days. Treatment involves drinking plenty of fluids as vomiting and diarrhoea can lead to dehydration. Antibiotics should not be used as there is no evidence that they are helpful to treat STEC infections and they may increase the risk of complications.

Rarely, symptoms may be severe or even life-threatening causing Haemolytic Uraemic Syndrome (HUS) which may occur up to 2 weeks after the start of the diarrhoea. If your symptoms do not go away or you develop easy bruising, feel you are passing less urine than usual or your urine is pink/brown in colour please urgently seek medical advice as these symptoms could indicate the start of HUS and you may need further tests.

Staying away from work or school/nursery

You should stay away from work/school or nursery until you have stopped having symptoms for **at least 48 hours** to avoid passing it on to others.

For some people, this time may be longer and further samples may be needed because of the higher chance of spreading the infection to others or spreading it to people who may be more likely to develop severe illness. This may include:

- those that need help with their own personal hygiene at home, work or school
- children aged 5 years and under, particularly those attending nursery or pre-school groups
- those that prepare or serve unwrapped food that is not heated further
- healthcare workers with direct contact with highly susceptible patients for whom an infection like STEC could have serious consequences

Children aged 5 years and under (up to sixth birthday)

Although rare, the risk of HUS is highest in children aged 5 years and under. Some children aged 5 years and under have also been shown to continue to pass STEC in their poo for longer than adults, sometimes for many weeks or even months.

For these reasons, children aged 5 years and under may need to stay away (be excluded) from childcare settings until their poo samples are clear of the infection. If there are other children aged 5 years and under in the household, they may also be excluded, whether they have symptoms or not, until poo samples show that they have not picked up the infection.

Your local PHE Health Protection or Environmental Health Officers will be in contact to advise you if exclusion is needed for you and/or your contacts. They will provide you with information on this clearance process and aim to support you to get you or your child back to normal activities as quickly as possible.

Please read the rest of this leaflet and in particular follow the advice on ‘*How can I prevent others from becoming ill?*’ to minimise passing the infection on to others.

General information on STEC?

STEC (Shiga toxin-producing *Escherichia coli*)

STEC (Shiga toxin-producing *Escherichia coli*) can cause illness ranging from mild diarrhoea to life threatening conditions. STEC O157 is the most common type in the UK and in a small number of people can cause very serious illness called Haemolytic Uraemic Syndrome (HUS). The risk of HUS is highest in children aged 5 years and under.

We know that STEC is very infectious and can be easily passed to others. It has also been the cause of several outbreaks following eating infected food, contact with infected people and touching infected animals or their poo.

In some European countries, other types of STEC are the cause of serious illness and outbreaks.

Becoming infected

You may become infected with STEC in a variety of ways:

- **Eating infected/contaminated food** that has not been cooked all the way through, particularly minced meat products such as burgers and sausages, or salad items that have not been washed properly
- **Handling/preparation of food contaminated with soil** for example, potatoes and leeks where the soil has not been washed away
- **Drinking infected/contaminated water** such as from streams, rivers and lakes etc. which may contain animal poo
- **Close contact with animals**, particularly cattle, sheep and goats. Animal saliva may be infected because of the way animals clean themselves
- **Direct contact with animal poo** on the animal itself, in their pen or on the floor
- **Contact with an infected person**, particularly if you don't wash your hands thoroughly after using the toilet or before handling food

Symptoms

It usually takes between 2 and 4 days from being infected with STEC to develop symptoms which may be:

- No symptoms
- Very mild diarrhea
- Stomach pain
- Vomiting
- Fever
- Severe diarrhoea with blood
- Passing less urine than normal
- Haemolytic uraemic syndrome (HUS)

Preventing others from becoming ill

Normal cooking temperatures kill STEC and it can be easily washed off your hands. For extra reassurance, you can use antibacterial gels/wipes AFTER washing your hands with soap and water.

Important steps you can take include:

- **Wash hands thoroughly** with liquid soap and running water after using the toilet (or helping others including changing nappies), handling raw meat, before meals and after contact with animals. If you have false nails, pay particular attention to cleaning these thoroughly
- **Clean hard surfaces** including toilet bowls, flush handles, taps and hand basins regularly with hot soapy water followed by a disinfectant/sanitiser
- **Wash dirty clothes, bedding and towels** on the hottest wash cycle possible and do not share towels or face flannels with someone who is infected
- **Clean animal faeces from footwear/buggy wheels** after visits to animal attractions and wash your hands after doing so
- **Stay away from work/school/nursery** until 48 hours after you've stopped vomiting or having diarrhoea and **comply with any additional exclusions** recommended by the Environmental Health and/or Health Protection Teams

Further information about STEC

Further information relating to STEC can be found on the following websites:

- NHS Choices
<http://www.nhs.uk/conditions/Escherichia-Coli-O157/Pages/Introduction.aspx>
- Public Health England <https://www.gov.uk/government/collections/vero-cytotoxin-producing-escherichia-coli-vtec-guidance-data-and-analysis>
- The UK E.coli Support Group called H.U.S.H (Haemolytic Uraemic Syndrome Help)
<http://www.ecoli-uk.com/>