

This leaflet is to tell you about **E. coli O157 infection** and how to prevent its spread. It explains the reasons why you/your child might have been excluded from work/school and what happens next. It also provides you with information about hygiene in the home.

Now read on...

What is E. coli O157 infection and how common is it?

E. coli O157 is one of hundreds of strains of the bacterium Escherichia coli. Although most strains are harmless and live in the intestines of healthy humans and animals, E. coli O157 produces a powerful toxin (poison) and can cause severe illness.

How is E. coli O157 infection caught?

These are the commonest sources:

- Eating contaminated foods
- Direct contact with infected animals
- From other people with the illness
- Drinking unpasteurised milk

This illness is very easily passed from person to person because only a few of the germs are needed to make someone ill.

What are the symptoms of E. coli O157 infection caught?

E. coli O157 infection usually causes severe bloody diarrhoea and abdominal cramps. Some people do not have blood in their diarrhoea and some even have no symptoms at all.

There is usually little or no temperature and the illness is over in 5 to 10 days.

How is E. coli O157 infection treated?

Most people recover without antibiotics or other specific treatment in 5-10 days. There is no evidence that antibiotics improve the course of disease, and it is thought that treatment with some antibiotics may precipitate kidney complications. Anti-diarrhoeal agents should also be avoided.

Are there any longer term complications of E. coli O157 infection?

In some persons, particularly children under 5 years of age and the elderly, the infection can cause a complication called haemolytic uraemic syndrome (HUS), in which the red blood cells are destroyed and the kidneys fail. About 2%-7% of infections lead to this complication. Even if a person survives the immediate phase of HUS, their kidneys may fail progressively and lead to longer term complications.

HUS is a life-threatening condition usually treated in an intensive care unit. Blood transfusions and kidney dialysis are often required. Even with intensive care, the death rate from HUS is still 3%-5%.

The implications of E.coli O157 infection can be severe

What can I do to prevent E. coli O157 infection?

There is no vaccine to prevent E. coli O157 infection, nor do you become immune once you have had it, so avoiding infection is very much in your own hands.

Cook all ground beef and hamburgers thoroughly as cows are the commonest carriers of this infection

Keep raw meat separate from ready-to-eat foods

Wash hands, work surfaces, and utensils with hot soapy water after they touch raw meat

- Consume only pasteurized products such as milk, juice, or cheese

- Wash fruits and vegetables thoroughly, especially those that will not be cooked

- Avoid swallowing water while swimming

- Make sure that persons with diarrhoea, especially children, wash their hands carefully with soap after bowel movements to reduce the risk of spreading infection

- Ensure people wash hands after handling animals or visiting farms

Hand washing is the single most important thing you can do to prevent the spread of infections

What happens after I find out I have the infection?

When dealing with gastro-intestinal infections it is important that we prevent spread from person to person. There are certain occupations where the risk of this occurring is greater or the consequences of it happening are more serious. The age of the case is also considered a risk factor. The following groups are nationally recognised as high risk groups:

Group A: Any person of doubtful personal hygiene or with unsatisfactory toilet, hand washing or hand drying facilities at home, work or school

Group B: Children who attend pre-school groups or nursery

Group C: People whose work involves preparing or serving unwrapped foods not subjected to further heating

Group D: Health and social care staff

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If you or your child are not in any of the above groups you will be advised by the Environmental Health Practitioner (EHP) that you may return to work or school once you have had 48 hours free of symptoms. Due to the serious nature of E. coli O157 we may require negative samples from children over 5 years of age before they return to school. This is explained below.

What happens if I am in a risk group?

If you/your child has the infection and you are in one of the previously mentioned risk groups you will have to stay off work/nursery/school until you have produced two consecutive faeces (poo) samples that are negative for E. coli O157. These samples must be at least 48 hours apart.

This will be arranged by the EHP or the Anglia Health Protection Team via you and your GP.

What investigations will take place?

An EHP will contact you to ask you some questions to try to find out how you might have contracted the infection. Occasionally we get more than one case that are linked in some way. This type of outbreak requires urgent investigation by the EHP and the Anglia Health Protection Team.

We may take faeces samples to test for the infection from other people in your household especially if they are in one of the risk groups or are ill or at primary school. It is important to note that some people can have the germ in their faeces but have no symptoms at all.

Whatever tests are carried out on you or your household you will be advised of the results either by your GP, EHP or the Anglia Health Protection Team.

What precautions should I take in the home?

Hand washing is very important so ensure all household members wash their hands with warm water and soap at the following times:

- After using or cleaning the toilet
- After attending to another ill person
- After changing a baby's nappy
- After handling/washing soiled clothes or linen
- Before eating or preparing food

Other precautions are:

- Supervise young children when they wash their hands
- Each family member should have their own towel
- Clean toilet seats and flush handles frequently with hot soapy water. You can also use a disinfectant afterwards

What should I avoid doing whilst I/my child remains positive for E. coli O157?

- Where possible avoid preparing food for other people whilst you have symptoms
- Avoid visiting others and having visitors to your house until symptoms have stopped
- Young children should avoid playing with other children whilst they remain positive
- If your child's symptoms have stopped they can go out but should avoid using public toilets until they have had clear samples
- Avoid taking your child to places where there are collections of children such as parties, Brownies, Beavers etc. until they have clear samples
- Avoid swimming whilst ill and for two weeks after symptoms have stopped.

- 1 Campylobacter
- 2 Rotavirus
- 3 Salmonella
- 4 E. coli 0157**
- 5 Clostridium perfringens
- 6 Shigella
- 7 Giardia
- 8 Viral Gastroenteritis



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