

# Gloucester City Council

## *Factsheet*

### E COLI

## Verocytotoxin producing Escherichia coli (VTEC)?

#### **What are Verocytotoxin producing Escherichia coli (VTEC)?**

Verocytotoxin producing Escherichia coli [VTEC] are bacteria responsible for a range of illnesses in humans from mild diarrhoea to severe colitis. There are a number of different VTEC bacteria, the commonest one responsible for human disease being E. coli 0157. At present most of these infections are diagnosed in children under 5 years of age and the majority of cases occur in the summer and early autumn.

#### **What symptoms do VTEC cause?**

Diarrhoea is the commonest symptom produced by E. coli 0157 and the other VTEC infections. The incubation period for the illness is usually one to six days with an average of about two days. It is usually a self-limiting, mild diarrhoea which settles within two weeks but it can progress to a more serious colitis with severe abdominal pain and bloody diarrhoea. Nearly half of all infected patients have blood in their faeces.

#### **Where do VTEC infections come from and how do they spread to humans?**

Raw meat and products like undercooked beef burgers are a common source of infections. Other suggested sources of infection include contaminated pasteurised and unpasteurised milk, yoghurt and faecally contaminated raw vegetables and water. Outbreaks due to the spread of the infection from person to person have occurred within households, nurseries and infant schools. Direct contact with infected animals, particularly on farms or in animal sanctuaries, have also been reported as a source of infection.

#### **What measures can be taken to control the spread of VTEC?**

Hand washing by children must be supervised in nurseries and infant schools. Cases who pose a special risk of spreading the infection include:

- food handlers whose work involves touching unwrapped foods to be consumed raw or without further cooking;
- health care, pre-school nursery or other staff who have direct contact, or contact through serving food, with highly susceptible patients or people in whom a diarrhoeal illness could be serious;
- children under five years of age attending play groups, pre-school nurseries or other similar groups;
- older children and adults who are unable to implement good standards of personal hygiene.



## ENVIRONMENTAL HEALTH

Gloucester City Council  
Herbert Warehouse  
The Docks  
Gloucester GL1 2EQ

Tel 01452 396396 Fax 01452 396340  
Email [enviro@gloucester.gov.uk](mailto:enviro@gloucester.gov.uk)  
Minicom 01452 396161  
[www.gloucester.gov.uk](http://www.gloucester.gov.uk)



**GLOUCESTER**  
CITY COUNCIL

All these cases should be excluded from their work or school until two faecal samples taken at intervals of not less than 48 hours have been found to be clear of the organism. Cases who pose no special risk can return to work or school 48 hours after their diarrhoea has settled.

Contacts who are children under five years of age attending play groups, pre-school nurseries or other similar groups as well as older children and adults who are unable to implement good standards of personal hygiene should, in addition, be excluded from their work or school until their faeces samples have been found to be clear of the organism.

### **How can I avoid this illness?**

- All meat and meat products must be thoroughly cooked until the juices run clear or they achieve a core temperature of at least 75°C.
- Frozen food must be thoroughly defrosted before cooking unless the manufacturer's directions allow for cooking from frozen.
- Food that is cooked and cooled for service later must be cooled rapidly and refrigerated not more than 1½ hours after cooking.
- To ensure thorough cooking and rapid cooling, joints of meat should not exceed 6lb or 2.5kg in weight.
- Your refrigerator should operate at a temperature of between 0 and 5°C.
- Raw food must always be stored below cooked and ready to eat food so that juices, soil and bacteria from the raw food do not drop onto these items.
- Food which has been pre-cooked for reheating prior to service must be reheated thoroughly to a core temperature of at least 75°C.
- Thoroughly wash your hands with soap and hot water prior to handling food and after handling raw food, rubbish, pets, children, the laundry or visiting the toilet.
- Work surfaces and equipment should be thoroughly cleaned and disinfected with a sanitiser or bactericidal surface cleaner before use and between tasks especially after being in contact with raw food.
- If you are suffering from food poisoning type symptoms, e.g. stomach pains, diarrhoea, vomiting, fever, you should avoid preparing food until you are better.
- In addition please note the following as they are potential sources of the illness:
  - *Unchlorinated/untreated water supply*
  - *Raw/unpasteurised milk and milk products*
  - *Undercooked/pink minced meat or beef burgers*
  - *Raw/lightly cooked shellfish drawn from sewage contaminated waters*
  - *Inadequately cooked/reheated meats, including gravy and meat pies*
  - *Exercise extreme care in contact with known sufferers of E coli as person to person spread is not uncommon.*

### **What do I do if I think I or a member of my family has food poisoning?**

- Visit your doctor.
- If suffering from diarrhoea, ensure a stool sample is submitted as soon as possible via your doctor. This will help identify the cause of the illness. Do not return to work/school whilst symptoms persist.
- If E coli is isolated, do not return to work/school until 48 hours after symptoms have ceased or if you work in a food business, hospital, nursing home or nursery school, inform your employer and do not return to work until you have obtained two negative stool samples.
- Children should be kept at home until 48 hours after symptoms have ceased.
- Employ scrupulous standards of personal hygiene:
  - *Wash hands thoroughly with soap and hot water before preparing or serving food looking after the very young, the elderly or infirm, after using or cleaning the toilet, after attending to the patient, changing the baby's nappy or washing soiled clothes and bedding.*

- *Whilst diarrhoea persists great care should be taken to clean the toilet after the patient has used it with a household disinfectant. This should include cleaning of the WC seat, flushing handle, door handles and washbasin taps.*

**Summary:**

**Common causes:**

- Raw meat and undercooked products, for example, beef burgers.
- Contaminated pasteurised and unpasteurised milk.
- Person to person spread.
- Contact with infected animals.

**Prevention:**

- Thorough cooking of meat and meat products.
- Thoroughly defrosting food before cooking.
- Keeping food at correct temperatures.
- Thoroughly washing hands.
- Thoroughly cleaning work surfaces and equipment.