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www.hpa.org.uk

# Cryptosporidium



This leaflet contains information about Cryptosporidium  
- what it is and how it affects people

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please contact:

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## 1 What is Cryptosporidium?

Cryptosporidium is a parasite that causes an infection called cryptosporidiosis affecting people, cattle and other animals.

## 2 Who is at risk?

Anyone can get cryptosporidiosis, but it is most common in children aged between one and five years. People who care for, or work with children are more at risk than others. It can be a serious illness in people who have immune systems that are not working properly (including people who have cancer, are having chemotherapy, or have HIV).

## 3 How do you get cryptosporidiosis?

Cryptosporidium is found in lakes, streams and rivers, untreated water and sometimes in swimming pools.

You can get cryptosporidiosis directly from another person or animal by touching faeces, (for example when changing a nappy) and drinking or swimming in contaminated water. Occasionally you can be infected by eating and drinking contaminated food, particularly unpasteurised milk, offal (liver, kidneys, and heart) or undercooked meat.

## 4 How can you avoid getting cryptosporidiosis?

- Wash your hands thoroughly with soap and warm water:
  - before preparing and eating food
  - after handling raw food
  - after going to the toilet or changing a baby's nappy
  - after working, feeding, grooming or playing with pets and other animals
- Do not drink untreated water
- Do not use ice or drinking water in countries where the water supply might be unsafe
- Always wash and/or peel fruits and vegetables before eating them
- Do not go swimming if you have diarrhoea. If you have had cryptosporidiosis do not go swimming until you have been clear of diarrhoea for at least two weeks
- Pay special attention to hygiene during farm visits, washing hands after any contact with animals, and eating only in designated areas
- Clean toilet seats, toilet bowls, flush handles, taps and wash hand basins after use
- Make sure that everyone has their own towel and that they do not use anybody else's
- Wash all soiled clothes and linen on as hot a machine wash as possible

## 5 What are the symptoms of cryptosporidiosis and how long do they last?

Watery diarrhoea, stomach pains, dehydration, weight loss and fever which could last for up to three weeks, but people with weak immune systems can be affected for much longer. People may think they are getting better but then feel worse before the illness eventually goes.

If you have concerns about your health contact NHS Direct on 0845 4647, visit their website <http://www.nhsdirect.nhs.uk>, or see your family GP.

## 6 How do you treat cryptosporidiosis?

There is no specific treatment for cryptosporidiosis. Most people with a healthy immune system will recover within one month. It is important to drink plenty of fluids as diarrhoea or vomiting can lead to dehydration and you can lose important sugars and minerals from your body. Your doctor may recommend a re-hydration solution, available from your pharmacist.

- If you feel sick, try taking small sips of fluid, frequently
- Avoid tea, coffee, carbonated drinks or alcohol
- A simple painkiller like paracetamol can help combat any pain.

## 7 Do I need to stay off work or school?

Yes. While you are ill and have symptoms you are infectious. You should not return to work or school until you have been free from diarrhoea and/or vomiting for 48 hours. You should tell your employer you have had cryptosporidiosis if you work with vulnerable groups such as the elderly, the young, those in poor health, or if you handle food.

## 8 The Health Protection Agency and cryptosporidiosis

More information about the Health Protection Agency and cryptosporidiosis is available on our website at <http://www.hpa.org.uk>.



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## Legionnaires' disease



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This leaflet contains information about Legionnaires' disease  
- what it is and how it affects people

## 1 What is Legionnaires' disease?

Legionnaires' disease is a bacterial disease that may cause pneumonia. The majority of cases are reported as single (sporadic) cases but outbreaks can occur. The disease may have serious consequences for certain groups of people.

## 2 How do you get legionnaires' disease?

The bacteria causing legionnaires' disease exist naturally in the environment, but problems arise when they contaminate man-made water systems, such as cooling towers, hot and cold water supply systems in buildings, and spa pools and hot tubs.

Infection occurs when droplets contaminated with legionella are inhaled by the lungs. The disease is spread through the air from a contaminated water source. It cannot be spread from person to person.

Anyone can be affected by legionnaires' disease, but it is more common in men, people aged over 50 years, people with weakened immune systems and those who already have underlying lung conditions. Smoking is the most important risk factor.

## 3 What are the symptoms of legionnaires' disease?

The severity of the symptoms varies greatly, but include:

- Fever
- Loss of appetite
- Headache
- Feeling generally unwell
- Tiredness
- Dry cough
- People may feel initially like they have the flu.

Other symptoms such as diarrhoea and vomiting can sometimes develop, along with blood-streaked phlegm, feelings of confusion and occasionally delirium.

If you have concerns about your health contact NHS Direct on 0845 4647, visit their website <http://www.nhsdirect.nhs.uk>, or see your family doctor.

## 4 How long does it take for symptoms to develop?

It can take between two to ten days for the disease to develop. In rare cases, it can be as long as three weeks.

## 5 How is it treated?

People with legionnaires' disease always need antibiotic treatment. Appropriate antibiotic treatment has a good rate of success in treating the illness.

## 6 How is it prevented?

The UK has regulations which aim to ensure that water systems and those using water such as air conditioning systems do not harbour the bacteria which cause legionnaires' disease.

## 7 The Health Protection Agency and legionnaires' disease

We monitor outbreaks of legionnaires' disease and look for any patterns or trends which show possible connections between people who are affected. We provide advice on controlling outbreaks and work with colleagues in environmental health to track the source that has caused the illness, so that we can stop other people from becoming infected. We also work with colleagues in Europe in the control and investigation of cases of legionnaires' disease associated with holiday resorts abroad.

More information about the Health Protection Agency and legionnaires' disease is available on our website at <http://www.hpa.org.uk>.



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# Salmonella



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## 1 What is Salmonella?

Salmonella bacteria cause food poisoning. Anyone can get salmonella, but young children, the elderly and people who have immune systems that are not working properly (including people with cancer, AIDS or alcoholism) have a greater risk of becoming severely ill.

## 2 How do you get infected with salmonella?

You usually get salmonella by eating contaminated food. Salmonella bacteria live in the gut of many farm animals and can affect meat, eggs, poultry, and milk. Other foods like green vegetables, fruit and shellfish can become contaminated through contact with manure in the soil or sewage in the water.

Dogs, cats, and rodents can occasionally become infected.

Salmonella can be spread from person to person by poor hygiene, by failing to wash your hands properly after going to the toilet, or after handling contaminated food.

## 3 How can you avoid getting infected with salmonella?

- Wash your hands thoroughly with soap and warm water:
  - before preparing and eating food
  - after handling raw food
  - after going to the toilet or changing a baby's nappy
  - after contact with pets and other animals, especially reptiles and amphibians
  - after working in the garden
- Keep cooked food away from raw food
- Store raw foods below cooked or ready-to-eat foods in the fridge to prevent contamination
- Wash raw fruits and vegetables thoroughly before eating
- Cook food thoroughly, especially meat, so that it is piping hot
- Keep all kitchen surfaces and equipment including knives, chopping boards and dish cloths clean

- Do not drink untreated water from lakes, rivers or streams
- If someone has salmonella, wash all dirty clothes, bedding and towels in the washing machine on the hottest cycle possible. Clean toilet seats, toilet bowls, flush handles, taps and wash hand basins after use with detergent and hot water, followed by a household disinfectant

## 4 What are the symptoms of salmonella and how long do they last?

Diarrhoea, stomach cramps and sometimes vomiting and fever. It usually takes from 12 to 72 hours for the symptoms to develop. Symptoms usually last for four to seven days. Most people recover without treatment, but if you become seriously ill you may need hospital care because the dehydration (fluid loss) caused by the illness can be life-threatening.

If you have concerns about your health contact NHS Direct on 0845 4647, visit their website <http://www.nhsdirect.nhs.uk>, or see your family doctor.

## 5 How do you treat salmonella?

Drink plenty of fluids as diarrhoea or vomiting can lead to dehydration and you can lose important sugars and minerals from your body. Your doctor may recommend a re-hydration solution.

Sometimes severe cases are treated with antibiotics and/or admitted to hospital.

## 6 Do I need to stay off work or school?

Yes. While you are ill and have symptoms you are infectious. Children and adults should stay away from nursery, school or work for 48 hours after the symptoms have stopped.

You should tell your employer you have had salmonella if you work with vulnerable groups such as the elderly, the young, those in poor health, or handle food.

## 7 The Health Protection Agency and Salmonella

More information about the Health Protection Agency and salmonella is available on our website at <http://www.hpa.org.uk>.



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# Giardia



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## 1 What is Giardia?

Giardia is a parasite, (known as a protozoan), that causes an infection called giardiasis. Giardiasis occurs in people and also cattle, domesticated and wild animals.

## 2 Who is at risk?

Anyone can get giardiasis, but it is particularly common in children under 5 years. People who care for, or work with children are more at risk. Recreational water use and close contact with animals can increase the risk of getting giardiasis.

## 3 How do you get giardiasis?

Giardia is found in lakes, streams and rivers, untreated or contaminated water and sometimes in swimming pools.

You can get giardiasis directly from another person or animal by touching faeces, (for example when changing a nappy) and swimming in, or drinking contaminated water. Occasionally you can be infected by eating and drinking contaminated food, particularly where there is poor hygiene or sanitation.

## 4 How can you avoid getting giardiasis?

- Pay particular attention to personal hygiene and wash your hands thoroughly with soap and warm water:
  - before preparing and eating food
  - after handling raw food
  - after going to the toilet or changing a baby's nappy
  - after working, feeding, grooming or playing with pets and other animals and especially when handling faeces
  - after recreational water use – particularly inland rivers, streams, ponds and lakes
  - during farm visits, washing hands after any contact with animals
  - eating only in designated areas
- Do not drink untreated water, or use ice or drinking water in countries where the water supply might be unsafe
- Always wash and/or peel fruits and vegetables before eating them
- Clean toilet seats, toilet bowls, flush handles, taps and wash hand basins after use when there is a case of diarrhoea in the house

- Wash all soiled clothes and linen on as hot a machine wash as possible. Don't share towels

## 5 What are the symptoms of giardiasis and how long do they last?

Watery diarrhoea, which may be profuse and foul smelling, is often accompanied by nausea. Vomiting and abdominal pain may also be present. Prolonged diarrhoea and weight loss can occur in cases of giardiasis. The diarrhoea can last days and into weeks and even after the profuse diarrhoea has stopped, the organism can continue to be excreted.

If you have concerns about your health contact NHS Direct on 0845 4647, visit their website <http://www.nhsdirect.nhs.uk>.

## 6 How do you treat giardiasis?

If giardiasis is diagnosed you may be offered a course of antibiotics. Most people with a healthy immune system will recover within around a month.

It is important to drink plenty of fluids as diarrhoea or vomiting can lead to dehydration and you can lose important sugars and minerals from your body. Your doctor may recommend a re-hydration solution or may consider treatment in more persistent cases.

## 7 Do I need to stay off work or school?

Yes. While you are ill and have symptoms you are infectious. You should not return to work or school until you have been free from diarrhoea and/or vomiting for 48 hours.

You should tell your employer you have had giardiasis if you work with vulnerable groups such as the elderly, the young, those in poor health, or if you handle food.

More information about the Health Protection Agency and giardiasis is available on our website at <http://www.hpa.org.uk>. If you have any further questions, please contact your family doctor.

## 8 The Health Protection Agency and Giardia

More information about the Health Protection Agency and giardia is available on our website at <http://www.hpa.org.uk>.



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# Diarrhoea and vomiting in schools



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This leaflet contains information about diarrhoea and vomiting  
in schools - what it is and how it affects people

## 1 What causes diarrhoea and vomiting?

Diarrhoea and vomiting can be caused by a number of different organisms, including viruses (such as Rotavirus or Norovirus), bacteria (such as salmonella or campylobacter) and parasites.

## 2 How does diarrhoea and vomiting spread?

Diarrhoea and vomiting can be contracted by eating contaminated food or drinking contaminated water. It can also be easily spread from one person to another (especially if hygiene is poor). All cases of gastro-enteritis should be regarded as potentially infectious.

## 3 What are the symptoms?

The main symptoms are diarrhoea, vomiting, nausea, stomach pains and fever but these may vary. Most people make a full recovery within 1-2 days, however children may become dehydrated and require hospital treatment.

If you have concerns about your health contact NHS Direct on 0845 4647, visit their website <http://www.nhsdirect.nhs.uk>, or see your family doctor.

## 4 Why does diarrhoea and vomiting cause outbreaks?

Diarrhoea and vomiting causes outbreaks because it can easily spread from one person to another and some organisms are able to survive in the environment for many days.

Some organisms causing gastro-enteritis can infect people without causing symptoms or be excreted for long periods after recovery, however spreading it is unlikely providing that good personal hygiene is practised. Good personal hygiene is essential in limiting spread. Outbreaks are common in environments such as schools, nurseries and homes for elderly people.

## 5 How can these outbreaks be controlled?

Outbreaks can be difficult to control and long-lasting.

- Personal hygiene should be very strict. Thorough hand washing with soap and warm water and hand drying are the most important factors in preventing the spread of gastro-intestinal infections

- Everyone should wash their hands after going to the toilet and before preparing and eating food
- It is important to ensure that children have access to soap, warm water and paper towels in their school toilets
- The person who is ill should not prepare food for others because they can spread the organism to others very easily
- Toilet seats, flush handles, wash basin taps and toilet door handles should be cleaned at least daily, using detergent, hot water and disposable cloths
- Vomit or faeces spillages should be cleaned with detergent and water and then the cleaned area wiped over with a **bleach based** solution
- Disposable gloves and aprons must be worn when cleaning up spillages and disposed of into a plastic bag along with the used gloves and apron. This bag can be tied and disposed of into the normal black rubbish bag

## 6 How is diarrhoea and vomiting treated?

There is no specific treatment for diarrhoea and vomiting apart from letting the illness run its course. It is important to drink plenty of fluids to prevent dehydration. One or two of the less common organisms may require some specific treatment. If diarrhoea continues or there is blood in the diarrhoea, advice should be sought from a GP.

## 7 Do I need to stay off work or school?

Social contact should be restricted especially with children during the acute stage of the illness. In general people should stay away from work and school until they have been free of symptoms for 48 hours. Only very rarely it is necessary to close a school.

## 8 The Health Protection Agency and diarrhoea and vomiting

More information about the Health Protection Agency and diarrhoea and vomiting is available on our website at <http://www.hpa.org.uk>.



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# Campylobacter



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This leaflet contains information about Campylobacter  
- what it is and how it affects people

## 1 What is Campylobacter?

Campylobacter bacteria cause food poisoning. Anyone can get campylobacter, but young children under 5 years of age, those over 60 and travellers to developing countries are at greater risk.

## 2 How do you get infected with campylobacter?

You usually get infected by eating contaminated food. Campylobacter is particularly found in raw poultry and is common in other raw meat. You can also get campylobacter from infected pets and other animals. Cross contamination from meat to other foodstuffs in the kitchen is a particular problem.

## 3 How can you avoid getting infected with campylobacter?

- Wash your hands thoroughly with soap and warm water:
  - before preparing and eating food
  - after handling raw food
  - after going to the toilet or changing a baby's nappy
  - after contact with pets and other animals
  - after working in the garden
- Keep cooked food away from raw food; store raw foods below cooked or ready-to-eat foods in the fridge to prevent contamination
- Cook food thoroughly, especially meat, so that it is piping hot, as this will destroy any campylobacter and other food borne bacteria.
- Keep all kitchen surfaces and equipment including knives, chopping boards, and dish cloths clean
- Do not drink untreated water from lakes, rivers or streams
- Pay special attention to hygiene during farm visits, washing hands after any contact with animals, and eating only in designated areas
- If someone has campylobacter wash clothes and linen in the hottest cycle of the washing machine possible. Clean toilet seats, toilet bowls, flush handles, taps and wash hand basins after use with detergent and hot water, followed by a household disinfectant

## 4 What are the symptoms of campylobacter and how long do they last?

Symptoms include diarrhoea, vomiting, stomach pains and cramps, fever, and generally feeling unwell. They usually develop within two to five days, but can take as long as 10 days.

If you have concerns about your health contact NHS Direct on 0845 4647, visit their website <http://www.nhsdirect.nhs.uk>, or see your family doctor.

## 5 How do you treat campylobacter?

Most people recover without treatment within two to five days, although it can sometimes take up to 10 days to get better. Drinking plenty of fluids is important as diarrhoea or vomiting can lead to dehydration. Your doctor may recommend a re-hydration solution, available from your pharmacist.

## 6 Do you need to stay off work or school?

While you are ill and have symptoms you are infectious. You can return to work or school once you have been free from diarrhoea for 48 hours.

You should tell your employer you have had campylobacter infection if you work with vulnerable groups such as the elderly, the young, those in poor health, or handle food.

More information about the Health Protection Agency and campylobacter is available on our website at <http://www.hpa.org.uk>

## 7 The Health Protection Agency and Campylobacter

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# Clostridium difficile



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This leaflet contains information about *Clostridium difficile*  
- what it is and how it affects people

## 1 What is Clostridium *difficile*?

Clostridium *difficile* are bacteria in the bowel that cause disease by producing toxins (poisons).

## 2 Who gets Clostridium *difficile*?

Clostridium *difficile* is mostly found in people who are unwell, but it also exists in the gut of a small number of healthy adults. Elderly patients with other underlying diseases are most at risk. However, infection can occur in anyone who has:

- been treated with antibiotics
- undergone gastrointestinal surgery/manipulation
- had a long stay in a hospital or nursing home
- an immune system which is not working properly

## 3 How do you get Clostridium *difficile*?

Clostridium *difficile* produces spores that can live in the environment for a long time. Any surface, piece of equipment, furniture or furnishing can harbour the spores. The risk of cross-infection increases when patients have diarrhoea and bathrooms and toilets are shared. Antibiotics increase the risk of infection.

## 4 How do you avoid getting Clostridium *difficile*?

- Washing your hands thoroughly with soap and warm water
  - before preparing and eating food
  - after handling raw food
  - after going to the toilet or changing a baby's nappy
  - after visiting hospitals and care homes
- Taking antibiotics only when necessary
- If someone has clostridium, wash all dirty clothes, bedding and towels in the washing machine on the hottest cycle possible. Clean toilet seats, toilet bowls, flush handles, taps and wash hand basins after use with detergent and hot water
- Do not share towels

## 5 What are the symptoms of Clostridium *difficile*?

These include mild to moderate diarrhoea; stomach cramps/tenderness; fever; loss of appetite; nausea. Some cases are more serious.

If you have concerns about your health contact NHS Direct on 0845 4647, visit their website <http://www.nhsdirect.nhs.uk>, or see your family doctor.

## 6 What is the treatment for Clostridium *difficile*?

Drink plenty of fluids, as diarrhoea or vomiting can lead to dehydration and you can lose important sugars and minerals from your body. Your doctor may recommend a re-hydration solution. If you feel sick, try taking small sips of fluid, frequently. Avoid tea, coffee, carbonated drinks or alcohol.

Clostridium *difficile* colitis is usually treated with specific antibiotics. Once the diarrhoea stops it indicates the infection has gone. Clostridium *difficile* infection may recur. If this happens, patients should tell their GP that they have it.

## 7 Do patients who have had Clostridium *difficile* in hospital need special care once they have returned home?

People who have had Clostridium *difficile* colitis in hospital do not need special care once they return home. The symptoms of diarrhoea should have gone or their bowels should have started working normally 48 hours before they are discharged from hospital. Those returning to a care home need special precautions if they get ill with diarrhoea again.

## 8 Are there any complications?

In severe cases, patients can suffer ulceration and bleeding from the colon (colitis). At worst the intestine tears, so that the spaces in the surrounding abdomen become infected. Although rare, this can be fatal.

## 9 Do I need to stay off work or school?

Clostridium *difficile* infection is unusual in school age children and young adults. While you are ill and have symptoms you are infectious. You should not return to work or school until you have been free from diarrhoea for 48 hours. If you work with vulnerable groups such as those in care homes, you need to inform your employer.

## 10 The Health Protection Agency and Clostridium *difficile*

More information about the Health Protection Agency and Clostridium *difficile* is available on our website at <http://www.hpa.org.uk>.



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# Dysentery



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- what it is and how it affects people

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## 1 What is Dysentery?

Dysentery is an infection of the gut usually caused in the UK by a bacterium called Shigella. Dysentery can also be caused by small microscopic organisms, causing amoebic dysentery but the only usually affects people travelling abroad.

## 2 Who is at risk?

Anyone can get dysentery, but it is most common in children. People who care for, or work with young children are more at risk. International travel, particularly where sanitation is poor also increases the risk of getting dysentery.

## 3 How do you get dysentery?

The source of the bacteria is in the faeces (stools) of infected persons, particularly those who still have diarrhoea. Spread between young children occurs easily.

## 4 How can you avoid getting dysentery?

- Pay particular attention to personal hygiene and wash your hands thoroughly with soap and warm water:
  - before preparing and eating any food
  - after going to the toilet or changing a baby's nappy
  - not sharing the towel of an infected person
  - paying particular attention to hand washing when dealing with young children who have diarrhoea, or may have dysentery
- Do not drink untreated water
- Do not use ice or drinking water in countries where the water supply might be unsafe
- Always wash and/or peel fruits and vegetables before eating them
- Clean toilet seats, toilet bowls, flush handles, taps and wash hand basins after use when there is a case of diarrhoea in the house
- When there is a case in the family/home make sure that everyone has their own towel and that they do not use anybody else's

- Wash all soiled clothes and linen on as hot a machine wash as possible. As much faecal matter as possible, on soiled clothing and linen, should be removed before washing. This should be flushed down the toilet. Disposable gloves should be worn and hands washed thoroughly afterwards

## 5 What are the symptoms of dysentery and how long do they last?

Watery diarrhoea, which may be profuse and often accompanied by abdominal pain. Prolonged diarrhoea and weight loss can occur in some cases of dysentery. The diarrhoea can last days and into a week or longer and care in hand washing must be exercised during this time

If you have concerns about your health contact NHS Direct on 0845 4647, visit their website <http://www.nhsdirect.nhs.uk>

## 6 How do you treat dysentery?

Some types of dysentery require treatment. This will be identified from saecal samples. Most people with a healthy immune system will recover within around a month.

It is important to drink plenty of fluids as diarrhoea or vomiting can lead to dehydration and you can lose important sugars and minerals from your body. Your doctor may recommend a re-hydration solution, available from your pharmacist in more persistent cases.

- If you feel sick, try taking small sips of fluid, frequently
- Avoid tea, coffee, carbonated drinks or alcohol
- Always dilute sugary drinks even if you would not normally dilute them.

## 7 Do I need to stay off work or school?

Yes. While you are ill and have symptoms you are infectious. You should not return to work or school until you have been free from diarrhoea for 48 hours. You should tell your employer you have had dysentery if you work with vulnerable groups such as the elderly, the young, those in poor health, or if you handle food.

## 8 The Health Protection Agency and Dysentery

More information about the Health Protection Agency and dysentery is available on our website at <http://www.hpa.org.uk>.



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## *E. coli* O157



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This leaflet contains information about *E. coli* O157  
- what it is and how it affects people

## 1 What is *E. coli* O157?

*Escherichia coli* (*E. Coli*) are a normal inhabitant of the large intestine of mammals and birds. However *E.coli* O157 is much rarer.

However, certain strains of *E. coli* known as verocytotoxin-producing *E. coli* (VTEC), produce a potent poison, or toxin, which causes illnesses ranging from mild diarrhoea through to very severe inflammation of the gut and kidneys. The most important toxin-producing strain associated with human illness is known as *E. coli* O157.

## 2 How do you get infected with *E.coli* O157?

You can become infected by:

- eating infected food, mainly meat, unpasteurised milk and cheese
- contact with infected animals, such as at farms or animal sanctuaries
- contact with other people who have the illness, through inadequate hand washing

## 3 How can you avoid getting infected with *E. coli* O157?

- Handle food and drink safely
- Fully cook minced meat products like beefburgers or meat loaf so that they are coloured all the way through, and no blood runs from them
- Keep cooked and uncooked meats separately; store uncooked meat on the bottom shelf of the fridge to avoid dripping raw meat juices onto other food
- Never put cooked food back on a plate which has had fresh uncooked meat on it
- Thoroughly wash all salads and vegetables that are to be eaten raw
- Avoid eating and drinking unpasteurised milk and dairy products
- Boil any drinking water if you are unsure of its source. Do not swim in water that may be contaminated
- Thoroughly wash hands after using the toilet, handling raw meat, before meals and after contact with animals
- Ensure children wash their hands with warm water and soap after contact with animals, particularly while on farm visits
- If someone has *E. coli* infection, wash all dirty clothes, bedding and towels in the washing machine on the hottest cycle possible
- Clean toilet seats, toilet bowls, flush handles, taps and wash hand basins after use with detergent and hot water, followed by a household disinfectant. If you have *E. coli* infection you should not prepare food for others

## 4 What are the symptoms of *E. coli* O157, and how long do they last?

People infected with *E. coli* O157 can have one, some, or all of the following symptoms: diarrhoea - about 50% of people also have blood in their stools; stomach cramps; fever. Some infected people may have mild diarrhoea or no symptoms at all. A very small number of patients may develop 'haemolytic uraemic syndrome' (HUS) which is associated with kidney failure, anaemia, and bleeding. Complications are more common in children under five years of age and the elderly.

On average, it takes three to four days for symptoms to develop after swallowing an infectious dose of *E. coli* O157. Symptoms can last up to two weeks, except in cases with complications. If you have concerns about your health contact NHS Direct on 0845 4647, visit their website <http://www.nhsdirect.nhs.uk>, or see your family doctor.

## 5 How do you treat *E. coli* O157 infection?

There is no specific treatment for *E. coli* O157 infection. Drink plenty of fluids as diarrhoea can lead to dehydration and you can lose important sugars and minerals from your body. Your doctor may recommend a re-hydration solution, available from your pharmacist. All cases require blood tests. Family contacts of cases will normally be investigated to see if they are also carrying the germ. When complications develop, patients need to be admitted to hospital.

## 6 How long should you stay away from work or school?

Most adults, and children over five years, can go back to work or school 48 hours after the first normal stool. Children under five should stay away from nurseries and playgroups until they are shown to be completely clear of the bacteria and free from diarrhoea.

You must tell your employer if you have had *E. coli* O157 infection if you handle food, or work with vulnerable groups such as the elderly, the young, or people in poor health. These groups should stay off work until two further stool tests, at least 48 hours apart, show that the bacteria have cleared. Also if you are a contact of a case and work in any of the above groups you may have to be excluded whilst a stool test is conducted to make sure you have not acquired the bacteria.

## 7 The Health Protection Agency and *E. coli* O157

More information about the Health Protection Agency and *E.coli* O157 is available on our website at <http://www.hpa.org.uk>.