

Amoebiasis (Dysentery)

Introduction

Dysentery is an infection of the intestines that causes diarrhoea containing blood or mucus.

Diarrhoea is the passing of three or more watery stools a day. Other symptoms of dysentery include:

stomach cramps

nausea (feeling sick)

vomiting

When to see your DOCTOR

It is not always necessary to see a DOCTOR because dysentery often clears up within a few days.

However, see your DOCTOR if you have diarrhoea containing blood or mucus that last longer than a few days. Tell them if you have recently been abroad, particularly if it was to a country with poor sanitation.

Treatment is not always needed, but it is important to drink plenty of fluids to replace those that have been lost through diarrhoea.

Types of dysentery

There are two main types of dysentery:

bacillary dysentery or shigellosis - caused by shigella bacteria, this is the most common type of dysentery in the UK

amoebic dysentery or amoebiasis - caused by an amoeba (single-celled parasite) called *Entamoeba histolytica*, found mainly in tropical areas, so this type of dysentery is picked up abroad

Both types of dysentery are commonly passed on through poor hygiene and people often become infected by eating contaminated food. Read more about the causes of dysentery.

Preventing dysentery

To minimise the risk of catching the condition, you should:

- wash your hands with soap and water after using the toilet
- wash your hands before handling, eating or cooking food
- wash the laundry of an infected person on the hottest setting possible

If travelling to an area with poor sanitation:

- drink bottled water (make sure the seal is intact)
- do not have ice in your drinks
- do not eat fresh fruit or vegetables that cannot be peeled before eating
- avoid eating food or drink bought from street vendors (except drinks from properly sealed cans or bottles)

Outlook

Amoebic dysentery is more serious than bacillary dysentery, but both types will often resolve themselves without treatment. In very rare cases, fatalities do occur. However this is more common in developing countries where sanitation is often poor and people do not have access to medical treatment.

Symptoms of dysentery

Bacillary dysentery

Dysentery that is caused by shigella bacteria (bacillary dysentery or shigellosis).

Symptoms of bacillary dysentery usually begin one to seven days after infection. Common symptoms are mild stomach pains and bloody diarrhoea. These symptoms last for three to seven days and many people do not need to visit their DOCTOR.

There is usually a lot of diarrhoea to begin with, followed by smaller amounts that are passed frequently and sometimes painfully.

In more severe cases, symptoms can include:

watery diarrhoea that contains blood or mucus

nausea or vomiting (feeling or being sick)

severe abdominal pain

stomach cramps

a high temperature (fever) of 38C (100.4F) or over

Amoebic dysentery

Dysentery that is caused by an amoeba (a single-celled parasite) is called amoebic dysentery or amoebiasis. Amoebic dysentery mainly occurs in tropical areas.

In some cases, amoebic dysentery does not cause any symptoms.

However, an infected person will pass cysts (amoebas that are surrounded by a protective wall) in their stools when they go to the toilet, and can infect their surroundings (see causes of dysentery for more information).

If you do experience symptoms, they may start up to 10 days after you originally became infected. Symptoms of amoebic dysentery include:

watery diarrhoea, which can contain blood

mucus or pus

nausea

vomiting

abdominal pain

fever and chills

bleeding from your rectum (back passage)

loss of appetite and weight loss

If you have amoebic dysentery, it is likely you will have blood in your diarrhoea. This is because the amoebas attack the walls of the large intestine, causing ulcers (sores) to develop that can bleed. The passing of stools may be painful.

Occasionally, the parasite can enter the bloodstream and spread to other organs in the body, particularly the liver, leading to the formation of an abscess (liver abscess). Symptoms of a liver abscess include:

fever and weakness

abdominal swelling and pain

cough

nausea (feeling sick)

jaundice

loss of appetite

weight loss

The symptoms of amoebic dysentery usually last a few days to several weeks. However, without treatment, even if the symptoms disappear, the amoebas can continue to live in the bowel for months or even years. This means that the infection can still be passed on to other people and that the diarrhoea can return.

Causes of dysentery

Bacillary dysentery (shigellosis) is caused by shigella bacteria. Amoebic dysentery is caused by an amoeba (a single-cell parasite) usually found in tropical areas.

Bacillary dysentery

There are four types of shigella:

Shigella sonnei: this is the most common type in the UK and produces the mildest symptoms

Shigella flexneri

Shigella boydii

Shigella dysenteriae: this produces the most severe symptoms

The shigella bacteria are found in faeces and are spread through poor hygiene; for example, by not washing your hands after having diarrhoea.

If you do not wash your hands, you can transfer the bacteria to other surfaces. The bacteria can then infect someone else if they touch the surface and transfer the bacteria to their mouth. The bacteria will travel from the mouth to the bowel, invading the cells that line the large bowel. The bacteria multiply, killing the cells and producing the symptoms of dysentery.

Most cases of bacillary dysentery are spread within families and in places where people are in close contact with one another, such as in schools, nurseries, military bases and day centres. The condition can be spread for up to four weeks after a person has become infected.

Dysentery is also spread through food that has been contaminated with human faeces (stools), particularly cold, uncooked food, such as salad.

This is more likely to happen in countries where:

there is poor sanitation

water supplies and sewage disposal are inadequate

human faeces are used as fertiliser

Severe dysentery is more common in developing countries.

The time between coming into contact with the bacteria and the symptoms starting (the incubation period) is usually one to seven days.

Amoebic dysentery

Amoebic dysentery (amoebiasis) is caused by an amoeba (a single-celled parasite) called *Entamoeba histolytica*. It is mainly found in tropical areas.

When the amoebas inside the bowel of an infected person are ready to leave the body, they group together and a shell surrounds and protects them. This group of amoebas is known as a cyst.

The cyst passes out of the person's body in their faeces and is able to survive outside the body. If hygiene standards are poor; for example, if the person does not dispose of their faeces hygienically, it can contaminate the surroundings, such as nearby food and water.

If another person then eats or drinks food or water that has been contaminated with faeces containing the cyst, they will also become infected with the amoeba. Amoebic dysentery is particularly common in parts of the world where human faeces are used as fertiliser.

After entering the person's body through their mouth, the cyst will travel down into their stomach. The amoebas inside the cyst are protected from the stomach's digestive acid. From the stomach, the cyst will travel to the intestines where it will break open and release the amoebas, causing the infection. The amoebas are able to burrow into the walls of the intestines and cause small abscesses and ulcers to form. The cycle then begins again.

The amoebas that cause dysentery can also be sexually transmitted during mouth-to-anus contact.

Diagnosing dysentery

You should visit your DOCTOR if you have diarrhoea containing blood or mucus that lasts longer than a few days. Tell your DOCTOR if you have recently been abroad, particularly if it was to a tropical country with poor sanitation where amoebic dysentery is common, such as India or Africa.

Stool sample

Dysentery is diagnosed by testing a sample of your stools (faeces) to see whether it contains the bacteria or amoebas that cause dysentery.

Other investigations

Other investigations may be used if dysentery has caused further problems, such as a liver abscess (see complications of dysentery), or to rule out other conditions, such as inflammatory bowel disease.

Further tests could include:

an ultrasound scan - where high frequency sound waves are used to create an image of part of the inside of your body, such as your liver

a blood test - a blood sample may be tested for infection-fighting proteins called antibodies that are likely to be present if you have amoebic dysentery

a colonoscopy - a type of endoscopy used to examine your bowels

Treating dysentery

Dysentery usually clears up after a few days and no treatment is needed. However, it is important to replace any fluids that have been lost through diarrhoea.

Treating diarrhoea

Diarrhoea can be treated by:

drinking plenty of fluids

taking oral rehydration solutions (ORS)

eating when you are able to

Information and advice about each of these is provided briefly below, but for more detail see treating diarrhoea.

Drinking fluids

If you have diarrhoea and vomiting, you should drink plenty of fluids to replace those that have been lost and to avoid dehydration. Take small, frequent sips of water.

It is very important that babies and small children do not become dehydrated. You should make sure that your child takes frequent sips of water even if they vomit. Taking a small amount of fluid is better than not taking any at all. Avoid giving your child fruit juice or fizzy drinks because these can make their diarrhoea worse.

In severe cases of diarrhoea, fluid may need to be given through a drip into the arm in hospital.

Oral rehydration solutions (ORS)

If you are particularly vulnerable to the effects of dehydration; for example, because you are 60 years of age or over, your DOCTOR or pharmacist may suggest using an ORS. An ORS may also be recommended for your child if they are dehydrated or at risk of dehydration.

ORS usually come in sachets that are available without a prescription from your local pharmacist. You dissolve them in water and they help to replace salt, glucose and other important minerals that your body loses through dehydration.

Rehydration drinks can't cure diarrhoea but they can help treat or prevent dehydration. Don't use homemade salt or sugar drinks.

Advice about eating

Expert opinion is divided over when and what you should eat if you have diarrhoea. However, most experts agree that you should eat solid food as soon as you feel able to. Eat small, light meals and avoid fatty, spicy or heavy foods.

If you feel that you're unable to eat, it should not do you any harm, but make sure that you continue to drink fluids and eat as soon as you can. If your child is dehydrated, avoid giving them any solid food until they have drunk enough fluids. Once they have stopped showing signs of dehydration; for example, they have become less irritable and started passing urine more frequently, your child can start to eat their normal diet.

If your child is not dehydrated, you should offer them their normal diet. If they refuse to eat, continue to offer drinks and wait until their appetite returns.

Antibiotics for bacillary dysentery

If you have moderate to severe dysentery that is caused by the shigella bacteria, antibiotics may be recommended to shorten the length of time that your symptoms last.

A number of different antibiotics can be used, including ciprofloxacin. However, the exact antibiotic that is recommended is likely to depend on the organism's pattern of resistance to some antibiotics. Antibiotic resistance is where the medicines are no longer able to kill the bacteria that they are meant to fight.

Antibiotics are not prescribed for mild cases of dysentery. This is because generally, overusing antibiotics to treat minor ailments can make them less effective in treating more serious or life-threatening conditions.

Treating amoebic dysentery

If you have amoebic dysentery (amoebiasis), your DOCTOR may prescribe an antibiotic called metronidazole. They will let you know how long you need to take it for, which will usually be around five days. Tinidazole is a possible alternative medicine.

After you have finished taking the antibiotics, you should be given a course of diloxanide (a medicine that kills the more resistant amoebic cysts forms). You will need to take diloxanide for 10 days.

Preventing dysentery

Dysentery is spread as a result of poor hygiene.

To minimise the risk of catching the condition, you should:

wash your hands with soap and water after using the toilet and regularly throughout the day, particularly after coming into contact with an infected person

wash your hands before handling, eating or cooking food

wash your hands before handling babies and feeding children or elderly people

keep contact with an infected person to a minimum

avoid sharing towels

wash the laundry of an infected person on the hottest setting possible

Travel advice

Good hygiene and proper sanitation are an enormous challenge for people living in poor conditions in developing countries where there is little or no access to fresh water and disinfectant.

If you're travelling to a country that has a high risk of contamination by the amoeba that causes dysentery, the advice below can help prevent infection.

Don't drink the local water unless you're sure that it's sterile (clean). Safe alternatives are bottled water or fizzy drinks from sealed cans or bottles.

If the water is not sterile, boil it for several minutes or use chemical disinfectant or a reliable filter.

Don't drink from public water fountains or clean your teeth with tap water.

Don't have ice in your drinks because it may be made from the local water.

Don't eat fresh fruit or vegetables that can't be peeled before eating.

Don't eat or drink milk, cheese or dairy products that haven't been pasteurised (a process that involves heating to destroy unwanted micro-organisms).

Don't eat or drink anything sold by street vendors (except drinks from properly sealed cans or bottles).