

Campylobacter

Fact Sheet



Maine Center for Disease
Control and Prevention
An Office of the
Department of Health and Human Services

What is *Campylobacter*?

Campylobacter are bacteria that cause diarrheal disease in humans. The bacteria are common in chickens, but don't make chickens sick.

How is it spread?

Campylobacter is spread to people when they eat food that has not been well cooked, drink water that has the bacteria in it, or drink unpasteurized milk. *Campylobacter* is found in the feces of infected people and animals. Sometimes it can spread from person to person if a person has the bacteria on their hands and they do not wash their hands well after using the toilet or changing diapers. People can also be infected by their pets.

What are the signs and symptoms?

The most common symptom is diarrhea. The diarrhea may have blood in it. Other symptoms include stomach pains, tiredness, fever, nausea and vomiting.

How will I know if I have an infection?

Your doctor's office will send a sample of your stool to the laboratory to be tested. It will take several days to do the test. Some people can have the disease and not have any symptoms.

How is it treated?

Most people get over this infection without any treatment. A few can get very sick and may need antibiotics. People with *Campylobacter* should drink lots of fluids while they have diarrhea.

How can I prevent illness?

- Always wash your hands with soap and water
 - Before eating, preparing food, and after preparing food, especially handling raw meat
 - After using the toilet, changing diapers
 - After touching pets or other animals (especially chickens)
- Cook all poultry (chicken and turkey) thoroughly. The meat should not be pink and the juices should be clear.
- Use separate cutting boards and utensils for raw and cooked meat products and raw vegetables, fruit or cheese

- Use only clean utensils, dishes and cutting boards when cooking or preparing food
- Keep infants and children from touching raw poultry products and packaging
- Avoid eating raw shellfish
- Do not eat or drink unpasteurized dairy products, including raw milk
- Avoid drinking untreated water when hiking or camping
- Avoid swallowing water when swimming or boating
- If you are taking care of someone with *Campylobacter* infection wash your hands with soap and water after cleaning the bathroom, helping with toileting, changing diapers or handling soiled clothing or bed linens.

What about work and daycare?

- Children with diarrhea should not attend daycare or school until the diarrhea stops
- People with *Campylobacter* should not work in food related businesses as food handlers or cooks until at least 24 hours after their diarrhea stops
- People who work in health care should not do patient care until their diarrhea stops

How common is illness?

Campylobacter is one of the most common bacterial causes of diarrhea in the United States. The majority of cases occur as isolated cases, not part of outbreaks. Illness occurs more often in the summer months than the winter.

Where can I get more information?

For more information contact your healthcare provider or local health center. You can also contact the Maine Center for Disease Control and Prevention by calling 1-800-821-5821 or visiting www.maine.gov/idepi. The federal Centers for Disease Control and Prevention website - <http://www.cdc.gov> - is another excellent source of health information.

Cryptosporidiosis

Fact Sheet



What is cryptosporidiosis?

Cryptosporidiosis is caused by a parasite called *Cryptosporidium*. The parasite has a hard outer shell, so it can survive outside the body for a long time and is very hard to kill.

The parasite lives in the intestines of people and animals. It passes out of the body in the feces. The parasite is found in soil, food, water, and on surfaces that have been contaminated with feces. People get the disease when they swallow the parasite.

What are the signs and symptoms?

The most common symptom is watery diarrhea. Other symptoms include stomach pain, fever, nausea, vomiting, dehydration, or weight loss. Some people may have no symptoms. The symptoms can last 1 to 2 weeks. The symptoms may seem to get better and then get bad again before they finally go away.

How will I know if I have it?

The only way to know for sure that you have the disease is to have a stool sample tested at the laboratory. It may take a few days to do the test.

How is it treated?

Most people get better without any treatment. There is medicine that your doctor may give you. Everyone with diarrhea should drink a lot of fluids to prevent dehydration. Babies and children can get very sick from dehydration.

How can I prevent it?

The best way to prevent illness is to practice good hygiene and to avoid water that might have the parasite in it.

- Wash hands with soap and water
 - After using the toilet or changing diapers
 - Before and after preparing or eating food
 - After handling animals, animal living spaces and animal waste
 - After gardening

- Do not swim if you have diarrhea. Children in diapers should not be in the water if they have diarrhea.
- Do not depend on chlorine or iodine to make water safe from *Cryptosporidium*.
- Do not swallow water when swimming or boating.
- Do not drink untreated water from lakes, streams, ponds, or springs.
- Avoid unpasteurized juices and raw milk products.
- Wash all raw fruits and vegetables with clean water and/or peel before eating.
- When traveling, do not use ice or drink tap water and avoid eating uncooked foods in countries where the water may not be safe and sanitation is poor.

What about work and daycare?

People with cryptosporidiosis should not prepare or serve food to others until their diarrhea has stopped. Children should not go to daycare until the diarrhea has stopped. Healthcare workers should not provide patient care until they are free of diarrhea.

Where can I get more information?

For more information contact your healthcare provider or local health center. You can also contact the Maine Center for Disease Control and Prevention by calling 1-800-821-5821 or visiting the website www.maine.gov/idepi. The federal Centers for Disease Control and Prevention website - <http://www.cdc.gov> - is another great source of health information.

Influenza

Fact Sheet



Maine Center for Disease
Control and Prevention

An Office of the
Department of Health and Human Services

What is influenza (flu)?

Influenza, commonly called "the flu," is caused by the influenza virus, which infects the nose, throat, and lungs. Unlike many other viruses such as the common cold, the flu causes severe illness and life-threatening complications in many people.

What are the symptoms of the flu?

Flu is a respiratory illness. Symptoms of flu include fever, headache, extreme tiredness, dry cough, sore throat, runny or stuffy nose, and muscle aches. Children can have additional symptoms, such as nausea, vomiting, and diarrhea, but these symptoms are uncommon in adults. Although the term "stomach flu" is sometimes used to describe vomiting, nausea, or diarrhea, these illnesses are caused by other viruses, bacteria, or possibly parasites, and are rarely related to the flu.

When is the flu season in Maine?

The flu season is generally from October through May, although flu may be found year round. Maine Center for Disease Control and Prevention (Maine CDC) monitors flu activity and provides reports each week from October through May.

How does the flu spread?

The main way the virus is spread is from person to person in droplets of coughs and sneezes. When a person coughs or sneezes the droplets can travel up to 3 feet and land on the mouth or nose of others. It is also possible to get the flu from touching a surface that has flu virus on it, and then touching your own mouth or nose (or someone else's mouth or nose) before washing your hands.

Does the flu have complications?

Yes. Some of the complications caused by flu include bacterial pneumonia, dehydration, and worsening of chronic medical conditions, such as congestive heart failure, asthma, or diabetes. Children may get sinus problems and ear infections after getting the flu. Those aged less than five years, 65 years and older and persons of any age with chronic medical conditions are at highest risk for serious complications of flu.

How can I prevent getting the flu?

The single best way to prevent the flu is to get a flu vaccine each year. There are two types of vaccines:

- The "flu shot" – an inactivated vaccine (containing killed virus) that is given with a needle. The flu shot is approved for use in people 6 months of age and older, including healthy people and people with chronic medical conditions.
- The nasal-spray flu vaccine – a vaccine made with live, weakened flu viruses that do not cause the flu (sometimes called LAIV for "Live Attenuated Influenza Vaccine"). LAIV is approved for use in healthy people 2 years to 49 years of age who are not pregnant.

About two weeks after getting the vaccine, antibodies develop that protect against the flu. Flu vaccines will not protect against other viral illnesses

What are other steps that can be taken to prevent the flu?

Maine CDC recommends following the "No Flu 4 You" Approach:

1. Wash your hands
2. Cover your cough
3. Stay home when you are sick
4. Get vaccinated

How soon will I get sick if I am exposed to the flu?

The time from when a person is exposed to flu virus to when symptoms begin is one to four days, with an average of two days.

How do I find out if I have the flu?

It is hard to tell the flu from other causes of respiratory illnesses on the basis of symptoms alone. A lab test can confirm that an illness is the flu if the patient is tested within the first two to three days after symptoms begin. In addition, a doctor's exam may be needed to determine whether a person has another infection that is a complication of the flu.

If I got the flu last year, will I have immunity against the flu this year?

It is possible, but varies widely. Young and healthy people with strong immune systems will likely have good immunity against the same or closely related strains of virus from one year to the next. However, people with weakened immune systems are less likely to have immunity that carries over in other years.

Flu viruses are constantly changing, so antibody made against one strain will become less effective against new strains as they change over time. In addition, there are different types of flu viruses circulating and different strains within virus types. The same type of flu virus does not necessarily circulate each year.

How long is a person with flu virus contagious?

Most healthy adults may be able to infect others from 1 day prior to becoming sick to 5 days after they first develop symptoms. Some young children and people with weakened immune systems may be contagious for longer than a week.

How many people get sick or die from the flu every year?

Each flu season is unique, but it is estimated that, on average, approximately 5% to 20% of U.S. residents get the flu, and more than 200,000 persons are hospitalized for flu-related complications each year. About 36,000 Americans die on average per year from the complications of flu.

How long can flu viruses live on hard surfaces (such as books and doorknobs)?

Flu viruses generally can survive on hard surfaces for between 2 and 8 hours.

What kills the flu virus?

Routine soaps, disinfectants and alcohols are effective against flu viruses if used properly. For example, wipes or gels with alcohol in them can be used to clean hands. The gels should be rubbed until they are dry.

What is novel or variant flu?

Novel or variant flu is any type of flu strain that is not commonly seen. This can include flu viruses that are normally found in pigs, birds, dogs, bats or other animals. How bad the novel strain is

depends on many things, and may be different for each novel type.

Symptoms of novel flu are usually the same as regular flu. Lab testing is required to find out if a strain is a common one, or a novel one. The “No Flu 4 You” approach should also be used to prevent novel flu.

Where can I get more information?

For more information contact your healthcare provider or local health center. You can also contact Maine Center for Disease Control and Prevention by calling 1-800-821-5821 or visiting the website www.maine flu.gov. The federal Centers for Disease Control and Prevention website - <http://www.cdc.gov/flu> – is another excellent source of health information.

Salmonellosis

Fact Sheet



What is Salmonellosis?

Salmonellosis is an illness caused by a group of bacteria called *Salmonella*. *Salmonella* is a major cause of diarrheal illness in the United States.

What are the signs and symptoms?

Symptoms usually appear between 6 and 72 hours after swallowing the bacteria. The most common signs of illness are:

- Diarrhea
- Stomach cramps
- Fever
- Headache
- Nausea and sometimes vomiting

Illness usually lasts 5 to 7 days, and most people recover without treatment. In some people the bacteria may move from the intestines into the blood or other body sites and cause more severe illness. The elderly, infants, and people with weakened ability to fight off germs are more likely to have severe illness. Some people may not look or feel sick, but may still shed the bacteria in their stools and pass the bacteria to others.

How is it spread?

The bacteria must be swallowed to cause illness. Usually this happens when someone eats food contaminated with the bacteria that has not been properly handled, prepared or cooked.

The illness may spread from person to person if people do not wash their hands well with soap and water after using the toilet, changing diapers, or touching animals or reptiles. People who get the bacteria on their hands can spread it to anyone or anything they touch, especially food. The food can make others sick if it is not cooked well enough to kill the germs.

The disease may be spread from person to person in places where hygiene may be poor.

What types of food are commonly linked with Salmonellosis?

The bacteria are commonly found in uncooked food products from farm animals. Examples include eggs, egg products, meat, meat products, poultry, milk, and dairy products. In recent years,

contaminated fruits and vegetables have been found to be sources of outbreaks. The bacteria can get in the food at any time between processing, cooking, and eating. For example, an infected food handler may get the bacteria on the food if his or her hands are not washed well before preparing food. Cooking foods well done and complete processing will kill the bacteria and make food safe to eat.

What are some non-food sources of Salmonella?

The bacteria have been found in the feces of both sick and apparently healthy people and animals. Many pets and farm animals, including dogs and cats, pet turtles, reptiles, chicks, poultry, cattle and swine, can carry the bacteria. Reptiles are very likely to carry the germ and people should always wash their hands immediately after contact with them. Animals might not show signs of being infected, but may still pass germs to people.

How is it treated?

Most people who are otherwise healthy recover without treatment. In healthy people, treatment with antibiotics may cause them to shed the bacteria in their stools for a longer period of time and increase the risk of passing the germ to others.

Antibiotics may be needed if infection spreads from the intestines to other parts of the body. Infants, the elderly and those who may not be able to fight off the infection on their own may also need antibiotics. It is important for all people with diarrhea to drink plenty of fluids to avoid dehydration.

How can you know for sure if you have Salmonellosis?

Your healthcare provider may ask you for a sample of your stool so the laboratory can test for the bacteria. It takes the lab several days to do this test.

How can Salmonellosis be prevented?

You can prevent this illness and other diseases by following these steps:

- Always wash your hands thoroughly with soap and water

- Before eating or preparing food
 - After using the toilet
 - After changing diapers
 - After touching pets or other animals (especially reptiles).
- Thoroughly cook all food products from animals, especially poultry and eggs.
- Do not eat raw or cracked eggs, raw unpasteurized milk or any other dairy product made with raw unpasteurized milk.
- Keep foods that will be eaten raw, such as fruits and vegetables, away from food products from animals. Wash your hands, utensils, and work surfaces that have been in contact with raw poultry before you make a salad.
- If you are caring for a person with this infection or diarrhea, wash your hands well after contact with the person's stool. After changing diapers, be sure to clean changing area well and wash hands carefully.
- Avoid letting infants or young children come into contact with reptiles, such as turtles or iguanas. If they do, make sure to wash their hands thoroughly with soap and water. Reptiles (including turtles) are not appropriate pets for small children and should not be in the same house as an infant.
- If you have a child in daycare that has this infection or diarrhea, let the daycare provider know so they can take extra steps to prevent spread of illness. Children with diarrhea should stay out of daycare until their diarrhea stops. The daycare provider should contact the Maine Center for Disease Control and Prevention (Maine CDC) for information on how to prevent spread of salmonellosis in the daycare.
- Contact your healthcare provider whenever you have diarrhea for more than a few days.

Are there any restrictions for people with Salmonellosis?

Yes. The Maine CDC will determine which restrictions apply in a specific situation. An infected food handler, child care worker or health care worker needs to stay out of work while ill. Contact Maine CDC at 1-800-821-5821 for specific information.

Where can I get more information?

For more information contact your healthcare provider or local health center. You can also contact the Maine Center for Disease Control and Prevention by calling 1-800-821-5821 or visiting the website www.maine.gov/idepi. The federal Centers for Disease Control and Prevention website - <http://www.cdc.gov/salmonella> – is another excellent source of health information.

Shiga toxin producing *E. coli* Fact Sheet



Maine Center for Disease
Control and Prevention
An Office of the
Department of Health and Human Services

What are Shiga toxin producing *Escherichia coli* (STEC)?

E. coli are bacteria that normally live in the intestines of people and animals. There are hundreds of different strains of *E. coli* and most strains do not make people sick. Some strains of *E. coli* - including *E. coli* O157:H7 - produce a powerful toxin (chemical) called "Shiga toxin" that can make people sick.

What are the symptoms?

The most common symptoms include severe diarrhea and stomach cramps. Sometimes the diarrhea is bloody. Some people may vomit or have a fever, but this is less common. Some people don't look or feel sick at all. Symptoms usually begin 1-10 days after swallowing the bacteria (average of 3-4 days). Most people get better within 5-7 days.

In some people, particularly children under 5 years of age, women, and the elderly, the infection can cause a complication called hemolytic uremic syndrome (HUS). HUS can damage the kidneys and cause other serious problems.

How is it spread?

Infections start when you swallow STEC—in other words, when you get tiny (usually invisible) amounts of human or animal feces in your mouth.

Eating contaminated food, drinking unpasteurized (raw) milk or water that has not been disinfected, or contact with cattle or the feces of infected people can result in illness. Sometimes the contact is obvious (e.g. working with cows at a dairy or changing diapers), but sometimes it is not (like eating an undercooked hamburger or a contaminated piece of lettuce).

People have gotten infected by swallowing lake water while swimming, touching the environment in petting zoos and other animal exhibits, and by eating food prepared by ill people who did not wash their hands well after using the toilet.

Where does STEC come from?

STEC live in the intestines of healthy animals, including cattle, goats, sheep, deer, and elk. The major source for human illnesses is cattle. STEC that causes human illness generally does not make animals sick. Other kinds of animals, including pigs and birds, sometimes pick up STEC from the environment and may spread it.

How do you know for sure if you have a STEC infection?

The laboratory will test a sample of your stool to see if shiga toxin is present. Anyone who suddenly has diarrhea with blood in it should seek medical advice and get their stool tested.

How is the illness treated?

Antibiotics should not be used. The use of antibiotics may increase the risk of HUS. Drink plenty of liquids to replace the fluids being lost. Do not try to stop the diarrhea by taking antidiarrheal medications like Imodium®; it can make the illness worse.

People who develop HUS need to be treated in the hospital where they may receive blood transfusions and kidney dialysis.

What are the long-term consequences of infection?

People who only have diarrhea usually recover completely. A small number of people who develop HUS have long term complications such as blindness, paralysis, persistent kidney failure, and the effects of having part of their bowel removed. Many people with HUS have mild kidney problems many years later.

How can STEC infections be prevented?

- Cook meats thoroughly. Use a meat thermometer, as color is not a very reliable indicator of "doneness." If no thermometer is available, do not eat ground beef patties that are still pink in the middle.
 - Ground beef, pork, veal or lamb at least 165°F
 - Ground turkey or chicken at least 160°F

- Roasts and Steaks 145°F
- Poultry at least 165°F
- Pork and ham 145°F
- Fish 145°F
- Keep raw meat separate from ready-to-eat foods like salads and vegetables you want to eat raw. Do not put cooked hamburgers or ground beef on the same plate that held raw patties. Wash the meat thermometer in between tests of patties that require further cooking.
- Wash hands, counters, and utensils with hot soapy water after they touch raw meat.
- Avoid raw milk, unpasteurized dairy products, and unpasteurized juices (like fresh apple cider).
- Wash fruits and vegetables under running water, especially those that will not be cooked.
 - Remove the outer leaves of leafy vegetables.
 - Children under 5 years of age, people with weak immune systems, and the elderly should avoid eating fresh sprouts.
- Avoid swallowing water when swimming or playing in lakes, ponds, streams, swimming pools, and backyard “kiddie” pools.
- People with diarrhea should
 - Avoid sharing baths with others
 - Avoid preparing food for others
 - Not swim in public swimming pools, lakes, waterparks or other bodies of water until 2 weeks after diarrhea ends
- Wash hands thoroughly
 - After using the bathroom or changing diapers and
 - Before preparing or eating food
 - After contact with animals or their environments (at farms, petting zoos, fairs, even your own backyard)

Where can I get more information?

For more information contact your healthcare provider or local health center. You can also contact the Maine Center for Disease Control and Prevention by calling 1-800-821-5821 or visiting the www.maine.gov/idepi. The federal Centers for Disease Control and Prevention website - <http://www.cdc.gov/ecoli> – is another excellent source of health information.

Are there any restrictions for people with STEC infection?

Yes. The Maine CDC will determine which restrictions apply in a specific situation. Contact Maine CDC at 1-800-821-5821 for specific information.