# Communicable Diseases

Disease that passes between people or animals

Sometimes referred to as infectious or transmittable disease

Pathogens such as bacteria, viruses, fungi, and protozoa can cause them

Once the pathogen infiltrates the body, I twill begin replicating, which will then cause the infected person to experience symptoms

The symptoms vary based on the disease.

Some people may not experience symptoms but can still transmit the pathogens

Some symptoms are due to the pathogen damaging the body’s cells, others are due to the body’s immune response to the infection

Some of these diseases are mild and symptoms may pass after a few days, however some others can be serious and potentially life threatening

## Common Communicable disease

### Rhinoviruses (Common Cold)

#### Symptoms include

* Stuffy or runny nose
* Sore throat
* Headache

A person can catch a rhinovirus by inhaling contaminated droplets from the cough or sneeze of another person.

Similarly, rhinoviruses are spread by people touching their nose, eyes, or mouth after touching items or surfaces that have come into contact with the virus.

### Coronaviruses

Large group of viruses that affect the respiratory system

#### Symptoms

* Some cause common cold and flu symptoms, while others can cause more severe outcomes

Like Rhinoviruses in spread

The SARS CoV 2 otherwise known as the COVID 19 virus belong to this family of viruses

### Influenza

#### Symptoms

* fever or chills
* stuffy or runny nose
* sore throat
* cough
* headaches
* muscle or body aches
* fatigue

A person catch influenza in the same way they may catch rhinoviruses

### HIV

Attacks the immune system of its host. This makes the person vulnerable to other infections and diseases.

#### Symptoms

The symptoms may develop gradually and in stages. They can include

* fever
* chills
* rash
* mouth sores
* sore throat
* swollen lymph nodes
* night sweats
* muscle aches
* fatigue

Although there is no cure for HIV, medications can help to keep the virus under control or make it undetectable. Without such treatment, HIV can develop into AIDS.

Other medications can help prevent a person from contracting HIV. People at high risk of HIV and those who believe they may have had exposure to it should speak with their primary healthcare professional about these options.

### Salmonella and Escherichia coli

Nontyphoidal Salmonella and Escherichia coli (E. coli) are two different types of bacteria that can infect the digestive system. Another form of salmonella, Salmonella typhi, can also cause typhoid.

#### Symptoms

* abdominal cramps
* diarrhoea
* fever
* headache

They typically spread through contaminated foods, such as uncooked meats and eggs, unwashed fruits and vegetables, and contaminated water sources.

Salmonella can also spread through contact with live animals, including chickens, and through person-to-person contact.

### Tuberculosis

Tuberculosis (TB) is a bacterial infection that primarily attacks the lungs.

#### Symptoms

* a cough continuing for more than 3 weeks
* loss of appetite
* unintentional weight loss
* fever
* chills
* night sweats

A person can catch TB by inhaling tiny droplets or “aerosols” from the cough or sneeze of a person who has the infection.

### Ringworm

Ringworm is a common fungal infection of the skin.

#### Symptoms

The characteristic symptom of ringworm is a ring-shaped rash. It may be dry, scaly, or itchy.

People may contract ringworm through:

* close contact with a person who has ringworm
* sharing towels, bedding, or other personal items with a person who has ringworm
* close contact with animals with ringworm, typically cats.

### Athlete’s foot

Athlete’s foot is a common fungal infection that affects the skin on the feet.

#### Symptoms

It typically causes sore or itchy white patches between the toes.

People can contract athlete’s foot through direct contact with someone who has the fungus or surfaces that have been in contact with the fungus. For example, an individual might contract athlete’s foot after walking barefoot in locker rooms, showers, or swimming pools.

### Plasmodium (Malaria)

The protozoa Plasmodium genus causes the tropical disease malaria.

#### Symptoms

* fever and chills
* headaches
* vomiting
* diarrhoea
* muscle pains

The parasite primarily transmits through mosquito bites.

Without proper treatment, malaria can be life threatening. Vaccination programs are also effectively protecting people from malaria fatalities.

### Lyme’s Disease

Lyme disease is a potentially serious infection that black-legged ticks can pass to humans.

The bacteria *Borrelia burgdorferi* causes the majority of Lyme disease cases. However, the bacteria *Borrelia mayonii* may also cause the disease

#### Symptoms

* headache
* fatigue
* fever
* skin rash

Lyme disease can spread to the joints, heart, and nervous system if a person does not treat it.

## Causes

A person may develop a communicable disease after becoming infected by the pathogen. This may happen through:

* direct contact with a person carrying the pathogen
* contact with bodily fluids containing pathogens
* inhaling pathogen-containing droplets from another person’s cough or sneeze
* receiving a bite from an animal or insect carrying the pathogen
* consuming contaminated water or foods

## How to prevent transmission

People can reduce their risk of contracting or transmitting disease-causing pathogens by following the steps below:

* washing their hands thoroughly and regularly
* disinfecting surfaces at home often, especially doorknobs and food areas
* disinfecting personal items such as phones
* cooking meats, eggs, and other foods thoroughly
* practicing good hygiene when preparing and handling food
* avoiding eating spoiled food
* avoiding touching wild animals
* receiving available vaccinations
* taking antimalarial medications when traveling where there is a malaria risk
* check for ticks and other parasites

## Treatment for communicable diseases

Some communicable diseases cause only mild symptoms that disappear without treatment. Others may cause severe symptoms or potentially life-threatening complications.

Patients require different treatment depending on disease process and clinical presentation.

### Viral infections

Vaccines are a highly effective method for preventing specific viral infections. There are several different types of vaccines.

When a person receives a vaccine, they are receiving a form of the virus. The immune system responds by producing antibodies capable of killing an active form of the virus in the future.

If a person already has a virus, they may require antiviral medications to keep the virus under control.

### Bacterial infections

Bacterial infections can range from mild to life threatening. A person who has a bacterial infection may require a course of antibiotics to help control the infection. These medications can help to kill bacteria or slow them down so the immune system can counteract them.

However, many bacteria are developing a resistance to antibiotics, which poses a major health risk. More than 2.8 million antibiotic-resistant infections occur in the U.S. every year.

A person should only ever take antibiotics on a medical recommendation.

### Fungal infections

A severe or chronic fungal infection may require prescription antifungal medications and, in rare cases, intravenous medication.

However, people can treat many mild infections, such as ringworm and athlete’s foot, with over-the-counter topical ointments.

## Summary

Communicable diseases are diseases that can pass from person to person. The pathogens that cause these diseases can spread in various ways, such as through the air, contact with contaminated substances or surfaces, or from animal and insect bites.

Many communicable diseases cause mild symptoms that go away without treatment. Others require treatment to prevent them from becoming more serious.

There are steps a person can take to reduce their risk of contracting and transmitting disease-causing pathogens. These include receiving available vaccinations, practicing regular handwashing, and maintaining good hygiene at home.