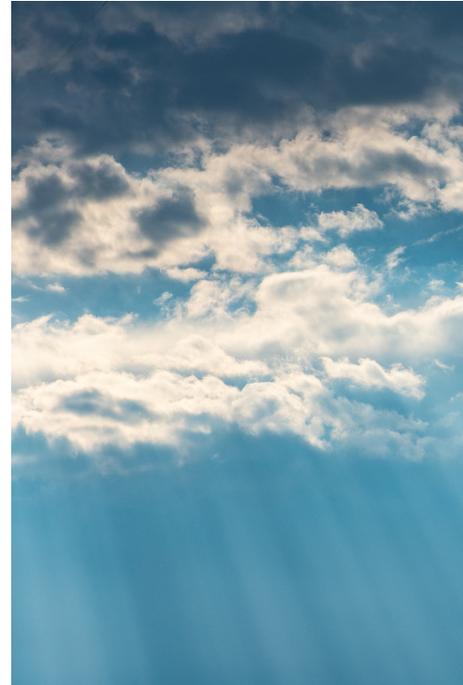


# CLIMATE SENSITIVE INFECTIOUS DISEASES

## What is climate change?

Climate encompasses the weather conditions that we can expect over a long period of time. Weather is the day-to-day conditions outside like rain, wind or snow.

For example, in the spring, the weather might be warm one day and snowy the next, but overall we expect the climate of the season to be mild and rainy.



Over the past 150 years, the earth's climate has been getting warmer because human activities, like burning fossil fuels (ex. gas in cars) is trapping more heat in the earth's atmosphere.

Climate change is having a big impact on the health of plants and animals.

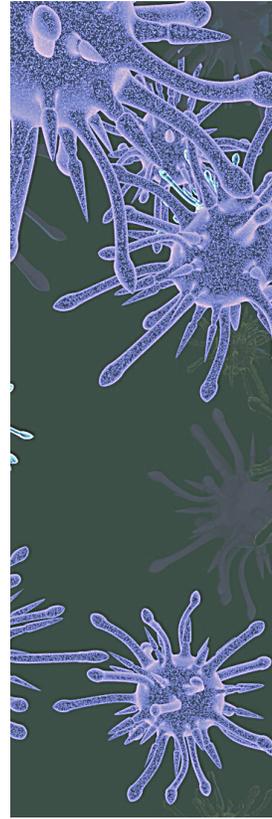
To learn more about climate change, visit: [climatekids.nasa.gov/climate-change-meaning](https://climatekids.nasa.gov/climate-change-meaning)

# What are infectious diseases?

Germs, also called bacteria, parasites and viruses are all around us. They live in our natural environment.

Many of these bacteria, parasites and viruses are harmless unless they enter our bodies. It is then that they can make us sick. When someone gets sick from bacteria, a parasite or a virus, we call it an infectious disease.

There are many different types of infectious diseases, including chicken pox, COVID-19 and Lyme disease. To learn more, visit: [kidshealth.org/en/kids/germs.html](https://kidshealth.org/en/kids/germs.html)



## What are climate sensitive infectious diseases?

Some infectious diseases are spread to humans by animals through bites or their waste contaminating food or water. For example, mosquitos can carry viruses and parasites that they can spread to humans when they bite.

Climate change is changing the size of animal populations and where they live. As the climate in Canada gets warmer, animals can live in places that used to be too cold for them to survive.

As these animals move, they also bring bacteria, parasites and viruses with them. We call these infectious diseases 'climate sensitive' because small changes to the climate will impact where and how many people get the disease.



# CLIMATE SENSITIVE INFECTIOUS DISEASES

There are many climate sensitive infectious diseases in Canada

To learn more about these diseases, visit: [canada.ca/en/public-health/services/diseases](https://canada.ca/en/public-health/services/diseases)

**Disease**

**Which animals spread it to humans?**

**How do humans get the disease?**

**Why is the disease sensitive to climate change?**

**Lyme disease**

The blacklegged tick and the western blacklegged tick



By being bitten by a tick that is infected with the Lyme disease bacteria

Ticks are able to survive longer in warmer temperatures. As Canada gets warmer, ticks are able to live in a bigger area than they used to

**West Nile virus**

Mosquitoes



By being bitten by a mosquito infected with the West Nile virus

Mosquitos are able to survive longer in warmer temperatures. The virus spreads more easily between mosquitos and humans in warmer temperatures

**Hantavirus**

Mice, rats, and other rodents



Touching objects or eating food contaminated by the urine or feces of an infected rodent

More rain will increase the number of rodents. Changes in climate will also affect the habitats of rodents, changing where they live

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**Disease**

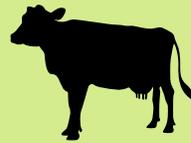
**Which animals spread it to humans?**

**How do humans get the disease?**

**Why is the disease sensitive to climate change?**

**E. coli**

Cows,  
goats,  
sheep



Drinking water or eating food that has been contaminated with the feces of an infected animal

Big rain storms can contaminate lakes and rivers with E. coli. The bacteria survive better in warmer temperatures

**Giardiasis**

Many domestic and wild animals including dogs, cats, cows, sheep, goats, horses, pigs, beavers, coyotes, rodents, racoons

Drinking water or eating food that has been contaminated with the feces of an infected animal

Big rain storms can contaminate lakes and rivers with giardia. The parasite survive better in colder temperatures

**Salmonellosis**

Cows, chickens, rodents, reptiles, cats, dogs, horses, amphibians

Drinking water or eating food that has been contaminated with the feces of an infected animal

Big rain storms can contaminate lakes and rivers with salmonella. The bacteria survive better in warmer temperatures