**Overview**

**What is a virus?**

Viruses are small germs (pathogens) that can infect you and make you sick. They can infect humans, plants, animals, bacteria and fungi. Each one infects only specific types of hosts.

[Viral infections](https://my.clevelandclinic.org/health/diseases/24473-viral-infection) in humans can cause no symptoms or make you extremely ill. Types of diseases they can cause include:

* [Respiratory illnesses](https://my.clevelandclinic.org/health/articles/4022-upper-respiratory-infection).
* Diarrhea and vomiting.
* Skin conditions.

A virus is a small piece of genetic information in a “carrying case” — a protective coating called a capsid. Viruses aren’t made up of cells, so they don’t have all the equipment that cells do to make more copies of themselves. Instead, they carry instructions with them and use a host cell’s equipment to make more copies of the virus.

It’s like someone breaking into your house to use your kitchen. The virus brought its own recipe, but it needs to use your dishes, measuring cups, mixer and oven to make it. (Unfortunately, they usually leave a big mess when you finally kick them out.)

Viruses are also sometimes called “virions.”

**Virus features**

Viruses share some common features. Viruses:

* Are made up of [genetic material](https://my.clevelandclinic.org/health/body/23064-dna-genes--chromosomes) (RNA or DNA) and a protective protein coating (capsid).
* Sometimes have another layer called an envelope around the capsid. Viruses without an envelope are called “naked viruses.”
* Are similar to parasites — they need a host to reproduce. They’ll survive outside of a host until their capsid breaks down over time.
* Are 100 to 1,000 times smaller than the cells in your body.