

Talk

Think back to the last time you had a cold and discuss the symptoms you had and the treatments you tried.

What home remedies are there for the common cold?

- Rest.
- Drinking plenty of fluids (including tea, which facilitates breathing and acts as a relaxant on the bronchial tubes).
- Onion/garlic syrup anti-inflammatory and bronchodilator/stimulating immunity.
- A spoonful of honey before bedtime (antitussive).
- Echinacea preparations (a plant called Echinacea reduces the duration of the disease).
- Salt solutions for the nose, which can also be in the form of inhalations (these reduce swelling of the nasal mucosa, moisturize, and facilitate breathing).

Video/Slide show

Watch a film in which a doctor talks about why we catch colds.

## What are viruses?

Viruses cause colds (and other illnesses). There are many different types of viruses – about 200 – but there is one particularly large "gang" that most frequently causes colds.

Rhinoviruses (HRV, the common cold virus), are fragments of RNA genetic code wrapped in a coat (capsid) of protein. Rhinoviruses cannot live and reproduce independently. They reproduce in other organisms, and need only that part of the (host's) genetic information that "tells" them how to reproduce. After rhinoviruses penetrate into the human organism, their genetic material (RNA) is incorporated into DNA molecules (human genome). Viruses have the ability to alter the activity of many of our genes.

## What is the difference between viruses and bacteria?

In contrast to bacteria, viruses cannot be called organisms. Viruses are much more dangerous than bacteria. Firstly, all of them are bad. Secondly, antibiotics do not work against them, and although there are some anti-viral drugs, often our only ally in the fight against them is our immune system: an army of white blood cells, which, anyhow, viruses know how to fool tactically.

## What is the difference between a cold and the flu?

Rhinoviruses cause acute inflammation of the mucous membrane of the nose and throat. They enter the organism through the nose and throat, and damage tissues into which they have penetrated, causing irritation, pain, swelling, and mucous secretions. This results in the characteristic symptoms of the common cold: sore throat, elevated temperature, cough, runny nose, sneezing, and general malaise. Cold symptoms differ from those of the flu in that there is initially no cough, a lower temperature, and also the occurrence of headaches is rare. However, it is often difficult to distinguish the two diseases. About a week after rhinoviruses enter into the body, our immune system can effectively fight them off.

**Not every virus circulating in the air will make us sick** – appropriate diet, adequate clothing in bad weather, and proper nutrition enable our bodies to fight off viruses before they multiply in our nose, so we will not get sick. Besides, since we know the route of entry of viruses and the symptoms caused by them, we can prevent the spread of infection.

**The immune system** is a system of many biological structures and processes within an organism that protects against disease. To function properly, the immune system must detect a wide variety of agents, known as pathogens (including viruses), and distinguish them from the organism's own healthy tissue.