

Influenza

Influenza (flu) is an acute viral respiratory illness that spreads very quickly. It occurs mainly during the winter months in the northern hemisphere and threatens the entire population, especially the elderly, people with chronic heart, lung, metabolic and other diseases, and young children.

Causes

There are three known viruses that cause influenza: influenza A, B and C. Influenza A virus causes epidemics and pandemics, while influenza B virus usually causes limited outbreaks, e.g. in schools, kindergartens. Influenza C virus infects individuals and does not cause epidemics. Distinction of the different types of influenza viruses is possible by microbiological tests. Influenza A viruses are subtyped on the basis of two surface antigens: hemagglutinin (H) and neuraminidase (N). Three types of hemagglutinins (H1, H2, H3) and two types of neuraminidase (N1, N2) are present in influenza viruses that cause seasonal influenza in humans. Other hemagglutinins are known to be present in influenza viruses, but cause disease in animals (birds, pigs and horses).

New subtypes of influenza virus emerge periodically and quite unexpectedly, causing pandemics. Pandemic influenza viruses are usually a combination of animal and human viruses. However, gradual small changes in the influenza virus are responsible for annual, seasonal epidemics.

Incubation period

The time from infection to disease onset is short. Illness symptoms and signs of flu (fever, runny nose, sore throat, cough) appear 1–3 days after infection.

Transmission

The influenza virus, the causative agent of influenza, is transmitted by infectious droplets and through surfaces contaminated with respiratory secretions of the person with influenza. Infectious droplets are produced by sneezing, coughing and talking loudly. They travel up to a maximum distance of one metre, so closer contact with the sick person, usually in a confined space, is necessary to transmit the influenza virus. The influenza virus can survive on surfaces in dried mucus for several hours. If contaminated surfaces are touched with the fingers, the influenza virus can be carried on the mucous membranes of the nose and mouth and we become infected.

Susceptibility to infection

We are all acceptable for flu. However, the course of influenza can vary considerably, depending on general health, age, immune system and whether we have had a similar influenza virus in the past. In younger, otherwise healthy people, the infection is asymptomatic - they don't get sick despite the infection - but in older, chronically ill people, the course can be difficult and complicated.

Symptoms and signs of the disease

About 1–3 days after infection, symptoms and signs appear: chills, exhaustion, high temperature, headache, muscle and bone pain, throat irritation and dry cough. Apart from the cough, which can last for several weeks, the symptoms usually disappear within two to seven days.

The influenza virus damages the lining of the respiratory tract and allows bacteria to enter the lung tissue, so bacterial pneumonia can develop as a complication of influenza. This complication is more common in older people and chronic patients. In chronic patients, the underlying illnesses worsen as they get over the flu. As a result, hospital admissions increase sharply during an influenza epidemic. Mortality increases.

Infectiousness

Infectiousness is highest just before the onset of the illness and a few days after the onset of influenza (3–5 days). Young children shed larger amounts of virus and are therefore infectious for longer periods of time (7 days or more). Prolonged shedding of virus is characteristic of immunocompromised patients.

Treatment

For most patients, treatment with antiviral drugs is not reasonable. The most important thing is to ease the problem and wait for the influenza to clear up.

If we have a fever above 38 °C, we take antipyretics - medicines that lower the body temperature. Paracetamol is suitable for children and adults can take paracetamol or aspirin. Especially at night, a blocked nose is very annoying and causes you to breathe through your mouth, which further dries out the mucous membranes of the upper respiratory tract and makes you feel worse. The use of nose drops is advised to increase nasal patency and make breathing easier.

Consume enough fluids, as we lose more than usual due to the heat, to avoid dehydration, which makes us feel even worse. Rest and avoiding physical exertion while the fever lasts is advised.

Taking antibiotics (in the absence of bacterial complications) is pointless and can be harmful.

Several types of antiviral drugs have been available for the treatment of influenza for several years, with varying degrees of effectiveness. These drugs can slightly shorten the duration and mitigate the course of the illness if prescribed by a doctor on the first or second day of the illness. Some medicines are not suitable for patients with serious kidney or liver problems, others not for people with asthma or chronic obstructive pulmonary disease. Antiviral drugs are usually prescribed for patients who are being treated in hospital for severe influenza.

Influenza can be a serious illness in the elderly, in people being treated for chronic illnesses, and in people with lower immunity. If there is no improvement within a few days, especially if a high fever persists and the cough becomes more and more hacking, the course of the influenza has become complicated by pneumonia. In this case, a doctor's examination and advice is urgently needed. The same applies to young children – if the fever doesn't go down and the child is drowsy, lethargic, dehydrated, a check-up in an outpatient clinic is needed.

Make sure you don't pass influenza virus to your loved ones - wash your hands several times a day and cough into your sleeve. Dispose of soiled tissues promptly. Wash your hands every time they become contaminated with respiratory secretions. Use our own glasses and cutlery.

Prevention of infections

The most effective protection against influenza is vaccination. Vaccination usually starts in November. Vaccination is recommended for everyone, especially for people over 65 years of age, patients with chronic lung, heart and kidney diseases, diabetics, people with immunodeficiency, people undergoing chemo- or radiotherapy, people with malignancies, and young children aged 6–23 months. Vaccination is recommended for pregnant women.

We also recommend vaccination for family members of all elderly and chronically ill people, so that they do not bring the influenza virus into the home environment and put a family member with health problems at risk of getting the influenza. In addition, we recommend vaccination for family members of young children and especially if there is an infant under 6 months who cannot yet be vaccinated.

Vaccination is recommended for healthcare staff and people in all those professions where influenza-related absenteeism would cripple activity (police, customs, post office, firefighters, etc.).

Influenza vaccination starts towards the end of autumn and continues until the number of influenza cases starts to decline. After vaccination, protection develops after a week in younger people, while in older people it takes 14 or more days for immunity to develop. Because influenza viruses change frequently and rapidly, each year experts create a new vaccine against the viruses they think will circulate. This is why we need to repeat the influenza vaccination every year.

We need to keep fit, get plenty of fresh air and eat healthy foods with lots of fruit and vegetables. During months when respiratory infections are high, avoid indoors and wash your hands thoroughly several times to avoid introducing influenza virus and other micro-organisms to your respiratory tract. Infection can be prevented by good hygiene habits – not sharing personal items such as toothbrushes, not drinking from the same glass or bottle, not using the same cutlery, etc.