# COVID-19

In China, several cases of pneumonia were detected in December 2019 and infection with a new coronavirus was confirmed. They maned it SARS-CoV-2 and the disease caused by the virus COVID-19.

The first COVID-19 cases in Europe were confirmed at the end of January 2020 in France and Germany. In Slovenia, the first case of COVID-19 was confirmed in early March 2020. On march 11 2020, the World Health Organisation declared a global pandemic of COVID-19, marked by a number of measures to contain and control the spread of SARS-CoV-2 infections, such as isolation for those infected, quarantine for those exposed, wearing masks in public spaces, local and international travel restrictions, and the closure of schools and some businesses.

#### The cause

The causative agent of COVID-19 is SARS-CoV-2, a coronavirus. Mutations in SARS-CoV-2 often lead to the emergence of new variants of the virus. New variants of the virus can potentially pose a challenge to the control of COVID-19, as they can spread more rapidly in the population and may be less sensitive to vaccines and existing drugs.

### **Incubation period**

The incubation period (time from infection to onset of disease) is 2 to 14 days, with an average of 5 to 6 days. The incubation period varies between different variants of the pathogen. During the prevalence of the omicron variant, the median incubation period is estimated to be 3 to 4 days.

# **Transmission**

The virus is transmitted by infectious droplets, including aerosols produced when an infected person coughs, sneezes, speaks or breathes rapidly. It can also be transmitted indirectly through contaminated surfaces or objects. The virus spreads easily in crowded or poorly ventilated indoor areas.

# **Susceptibility to infection**

Everyone is susceptible to infection. The disease does not leave lasting immunity, or it decreases over time, so even people who have already had the disease can get sick.

### Symptoms and signs of the disease

Symptoms of COVID-19 range from mild upper respiratory tract infection to severe lung impairment with respiratory distress, which can even be fatal. However, SARS-CoV-2 infection can also be asymptomatic. Most people who are infected experience fever, sore throat, cough, runny nose, malaise, fatigue, muscle and joint pain, loss of smell and taste, and digestive problems.

The disease can sometimes be more severe. The most common complication of COVID-19 is pneumonia. Blood clots and damage to other organs such as the heart, kidney and brain can occur. Older people and chronic patients are at higher risk of a more severe course of the disease.

In some people, the symptoms can persist for weeks, months or even years, which is known as long COVID or post-COVID syndrome. Problems include fatigue, shortness of breath, reduced exercise capacity, slight fever, concentration problems, difficulty finding words, sleep disturbances, muscle aches, headaches. Long COVID can develop in any patient with COVID-19, regardless of the severity of the disease or the treatment modalities. Women, chronic patients and unvaccinated persons are at increased risk of developing long COVID.

### **Diagnosis**

SARS-CoV-2 infection can be proven by microbiological testing: polymerase chain reaction or rapid antigen test of a nasal or nasopharyngeal swab.

#### Infectiousness

An infected person is contagious from two days before the onset of symptoms and up to 10 days after the onset of symptoms. Persons with severe COVID-19 and immunocompromised persons may be infectious for longer, up to 20 days after the onset of symptoms.

#### **Treatment**

For people with a mild form of COVID-19, rest and symptom relief (e.g. drugs to lower fever and relieve headaches and muscle and joint pain) are sufficient.

Several antiviral drugs are approved for the early treatment of COVID-19 in people at higher risk of a more severe course and adverse outcome of COVID-19.

### **Prevention of infection**

As with other acute respiratory infections, the following measures are important to prevent the spread of infection:

- Frequent hand washing or disinfection;
- Keeping unwashed hands away from mouths, noses and eyes;
- Avoiding crowded indoor spaces or, if possible, keeping a personal distance (2 metres);
- Regular room ventilation;
- Persons with symptoms and signs of COVID-19 should stay at home until symptoms resolve and contact their selected physician if necessary;
- Coughing and sneezing into a disposable sleeve or handkerchief, which should be disposed of in the bin after use, and then wash or disinfect hands;
- Using a mask to further protect ourselves from infection, especially if we are in a group at risk of severe disease.

For protection against COVID-19, especially the more severe form of the disease, vaccination against COVID-19 is available and recommended for people at increased risk of more severe disease (elderly, particularly vulnerable chronic patients, residents of nursing homes and other social care institutions).