

Coronavirus disease 2019 (COVID-19)

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Coronavirus disease 2019 (COVID-19) is a contagious disease caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). The first case identified in Wuhan, China, in December 2019. It has since spread worldwide, leading to an ongoing pandemic.

Symptoms of COVID-19 are variable, but often include fever, cough, fatigue, breathing difficulties, and loss of smell and taste. Symptoms begin one to fourteen days after exposure to the virus. Around one in five infected individuals do not develop any symptoms.¹ While most people have mild symptoms, some people develop acute respiratory distress syndrome (ARDS). ARDS can be precipitated by cytokine storms, multi organ failure, septic shock and blood clots.² Longer-term damage to organs (in particular, the lungs and heart) has been observed. There is concern about a significant number of patients who have recovered from the acute phase of the disease but continue to experience a range of effects- known as long COVID - for months afterwards. The effects include severe fatigue, memory loss and other cognitive issues, low-grade fever, muscle weakness, and breathlessness.^{3,4,5,6}

The virus that causes COVID-19 spreads mainly when an infected person is in close contact with another person.^{7,8} Small droplets and aerosols containing the virus can spread from an infected person's nose and mouth as they breathe, cough, sneeze, sing, or speak. Other people are infected if

the virus gets into their mouth, nose or eyes. The virus may also spread via contaminated surfaces, although this is not thought to be the main route of transmission.⁸ The exact route of transmission is rarely proven conclusively, but infection mainly happens when people are near each other for long enough.⁹ It can spread as early as two days before infected persons show symptoms, and from individuals who never experience symptoms. People remain infectious for up to ten days in moderate cases, and two weeks in severe cases. Various testing methods have been developed to diagnose the disease. The standard diagnosis method is by real-time reverse transcription polymerase chain reaction (rRT-PCR) from a nasopharyngeal swab.

Preventive measures include physical or social distancing, quarantining, ventilation of indoor spaces, covering coughs and sneezes, hand washing, and keeping unwashed hands away from the face. The use of face masks or coverings has been recommended in public settings to minimize the risk of transmissions. Several vaccines have been developed and various countries have initiated mass vaccination campaigns.

Although work is underway to develop drugs that inhibit the virus, the primary treatment is currently symptomatic. Management involves the treatment of symptoms, supportive care, isolation, and experimental measures.

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