Coronavirus disease 2019 (COVID-19) is a contagious disease caused by the coronavirus SARS-CoV-2. In January 2020, the disease spread worldwide, resulting in the COVID-19 pandemic.  
The symptoms of COVID‑19 can vary but often include fever, fatigue, cough, breathing difficulties, loss of smell, and loss of taste. Symptoms may begin one to fourteen days after exposure to the virus. At least a third of people who are infected do not develop noticeable symptoms. Of those who develop symptoms noticeable enough to be classified as patients, most (81%) develop mild to moderate symptoms (up to mild pneumonia), while 14% develop severe symptoms (dyspnea, hypoxia, or more than 50% lung involvement on imaging), and 5% develop critical symptoms (respiratory failure, shock, or multiorgan dysfunction). Older people have a higher risk of developing severe symptoms. Some complications result in death. Some people continue to experience a range of effects (long COVID) for months or years after infection, and damage to organs has been observed. Multi-year studies on the long-term effects are ongoing.  
COVID‑19 transmission occurs when infectious particles are breathed in or come into contact with the eyes, nose, or mouth. The risk is highest when people are in close proximity, but small airborne particles containing the virus can remain suspended in the air and travel over longer distances, particularly indoors. Transmission can also occur when people touch their eyes, nose, or mouth after touching surfaces or objects that have been contaminated by the virus. People remain contagious for up to 20 days and can spread the virus even if they do not develop symptoms.  
Testing methods for COVID-19 to detect the virus's nucleic acid include real-time reverse transcription polymerase chain reaction (RT‑PCR), transcription-mediated amplification, and reverse transcription loop-mediated isothermal amplification (RT‑LAMP) from a nasopharyngeal swab.  
Several COVID-19 vaccines have been approved and distributed in various countries, many of which have initiated mass vaccination campaigns. Other preventive measures include physical or social distancing, quarantining, ventilation of indoor spaces, use of face masks or coverings in public, covering coughs and sneezes, hand washing, and keeping unwashed hands away from the face. While drugs have been developed to inhibit the virus, the primary treatment is still symptomatic, managing the disease through supportive care, isolation, and experimental measures.  
The first known case was identified in Wuhan, China, in December 2019. Most scientists believe that the SARS-CoV-2 virus entered into human populations through natural zoonosis, similar to the SARS-CoV-1 and MERS-CoV outbreaks, and consistent with other pandemics in human history. Social and environmental factors including climate change, natural ecosystem destruction and wildlife trade increased the likelihood of such zoonotic spillover.  
Nomenclature  
During the initial outbreak in Wuhan, the virus and disease were commonly referred to as "coronavirus" and "Wuhan coronavirus", with the disease sometimes called "Wuhan pneumonia". In the past, many diseases have been named after geographical locations, such as the Spanish flu, Middle East respiratory syndrome, and Zika virus. In January 2020, the World Health Organization (WHO) recommended 2019-nCoV and 2019-nCoV acute respiratory disease as interim names for the virus and disease per 2015 guidance and international guidelines against using geographical locations or groups of people in disease and virus names to prevent social stigma. The official names COVID‑19 and SARS-CoV-2 were issued by the WHO on 11 February 2020 with COVID-19 being shorthand for "coronavirus disease 2019". The WHO additionally uses "the COVID‑19 virus" and "the virus responsible for COVID‑19" in public communications.  
Symptoms and signs  
Complications  
Complications may include pneumonia, acute respiratory distress syndrome (ARDS), multi-organ failure, septic shock, and death. Cardiovascular complications may include heart failure, arrhythmias (including atrial fibrillation), heart inflammation, thrombosis, particularly venous thromboembolism, and endothelial cell injury and dysfunction. Approximately 20–30% of people who present with COVID‑19 have elevated liver enzymes, reflecting liver injury.  
Neurologic manifestations include seizure, stroke, encephalitis, and Guillain–Barré syndrome (which includes loss of motor functions). Following the infection, children may develop paediatric multisystem inflammatory syndrome, which has symptoms similar to Kawasaki disease, which can be fatal. In very rare cases, acute encephalopathy can occur, and it can be considered in those who have been diagnosed with COVID‑19 and have an altered mental status.  
According to the US Centers for Disease Control and Prevention, pregnant women are at increased risk of becoming seriously ill from COVID‑19. This is because pregnant women with COVID‑19 appear to be more likely to develop respiratory and obstetric complications that can lead to miscarriage, premature delivery and intrauterine growth restriction.  
Fungal infections such as aspergillosis, candidiasis, cryptococcosis and mucormycosis have been recorded in people recovering from COVID‑19.  
Cause  
COVID‑19 is caused by infection with a strain of coronavirus known as "severe acute respiratory syndrome coronavirus 2" (SARS-CoV-2).  
Transmission  
Virology  
Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) is a novel severe acute respiratory syndrome coronavirus. It was first isolated from three people with pneumonia connected to the cluster of acute respiratory illness cases in Wuhan. All structural features of the novel SARS-CoV-2 virus particle occur in related coronaviruses in nature, particularly in Rhinolophus sinicus (Chinese horseshoe bats).  
Outside the human body, the virus is destroyed by household soap which bursts its protective bubble. Hospital disinfectants, alcohols, heat, povidone-iodine, and ultraviolet-C (UV-C) irradiation are also effective disinfection methods for surfaces.  
SARS-CoV-2 is closely related to the original SARS-CoV.