



How does COVID-19 transmit among people?

On modes of transmission:

- The virus that causes COVID-19 infection mainly spreads between people when an infected person is in close contact with another person. Transmissibility of the virus not only depends on the amount of viable virus being shed and expelled by a person, but also on the type of contact they have with others, the setting and what prevention and control measures are in place.
- The virus can spread from an infected person's mouth or nose in small liquid particles when the person coughs, sneezes, sings, breathes heavily or talks. These liquid particles are different sizes, ranging from larger "respiratory droplets" to smaller "aerosols."
- Aerosol transmission can occur in specific circumstances and settings in which procedures that generate aerosols are performed.
- Outside of medical facilities, aerosol transmission can occur in specific circumstances and settings, particularly indoor, crowded and inadequately ventilated spaces such as restaurants, fitness classes, nightclubs, offices and places of worship, where infected persons spend long periods of time with others.
- Viable virus has been found on surfaces and objects. Thus, the virus can be also transmitted through contaminated objects or surfaces, although there is limited evidence demonstrating actual transmission through this route.
- High quality research is still needed to address many of the acknowledged research gaps related to the routes of transmission of the COVID-19 virus, in particular regarding the extent of aerosol and fomite transmission in different settings.

On symptomatic, pre-symptomatic and asymptomatic transmission:

- Current evidence suggests that people infected with COVID-19 can transmit the virus whether they have symptoms or not.
- Infected individuals have highest viral loads, meaning they are more infectious, just before or around the time they develop symptoms and during the first 5-7 days of illness.
- Viable virus has been isolated from specimens of pre-symptomatic and asymptomatic individuals, suggesting that people who do not have symptoms are able to transmit the virus to others. Available studies suggest that asymptotically infected individuals are less likely to transmit the virus than those who develop symptoms.

Is COVID airborne?

- "Airborne" has a specific medical meaning, and applies to diseases such as measles and tuberculosis, that are mainly and predominantly transmitted through the air over long distances and for a long time even after an infected person has left a space.
- For COVID-19, the virus predominantly spreads through close, or direct contact, or possibly contaminated surfaces. That is why it is not called an airborne virus.

- Based on available reports, WHO has described some situations where the virus could be airborne in medical facilities where there are specific medical procedures (called aerosol generating procedures) and in some indoor, enclosed and poorly ventilated settings in which the virus can hang in the air and can travel over longer distances.
- While this has been reported in some scientific studies, this does not appear to be the main way the virus spreads. The virus predominantly spreads when infected people are in close contact with others.
- It is important to remember that consistent adherence to protective measures recommended (distancing, handwashing, use of masks, avoiding crowded spaces, opening a window, etc.) can limit transmission of COVID-19, as we have seen in several countries.

Please note that you can also refer to the list of WHO guidance on the subject:

[https://www.who.int/publications/i/item/advice-on-the-use-of-masks-in-the-community-during-home-care-and-in-healthcare-settings-in-the-context-of-the-novel-coronavirus-\(2019-ncov\)-outbreak](https://www.who.int/publications/i/item/advice-on-the-use-of-masks-in-the-community-during-home-care-and-in-healthcare-settings-in-the-context-of-the-novel-coronavirus-(2019-ncov)-outbreak)

In addition, please see the transmission pages for the latest products on the subject:

<https://www.who.int/teams/risk-communication/covid-19-transmission-package>