

## CoV-/N-SIGHTS: Evidence-Based Answers to FAQs Director General Medical Services (Navy)



### FAQ # 01 (05 May 2021): COVID-19 TRANSMISSION

#### 1. How does COVID-19 spread among people?

Three important modes of transmission of Covid-19 are as below:-

- (a) **Droplet Transmission.** The virus spreads mainly amongst people through droplet transmission where droplets from infected person are inhaled by a susceptible person through eyes, nose or mouth, who are in close contact with each other, typically within 1 meter (short-range).
- (b) **Air-Borne Transmission.** The virus can also spread through this mode in poorly ventilated and/or crowded indoor settings, where people tend to spend longer periods of time. This is because aerosols remain suspended in the air or travel farther than 1 metre (long-range).
- (c) **Fomite Transmission.** People may become infected by touching surfaces (fomites) that have been contaminated by the virus when touching their eyes, nose or mouth without cleaning their hands.

#### 2. How the scientific consensus about how SARS-CoV-2 is transmitted has shifted over a period of time?

- (a) Although **droplet transmission** is still considered the **main route** of transmission, growing evidence supports the contribution of smaller “**aerosol**” particles in some cases (air-borne) - particularly where **people are spending long periods in poorly ventilated spaces with an infected person**. These can linger in the air and be breathed into the lungs, triggering an infection.
- (b) Meanwhile, the evidence for **fomite transmission has grown less certain**. Several recent studies have attempted to grow coronavirus from swabs taken from real-world settings - such as hospital furniture or hotel rooms occupied by infected people. Although viral RNA could be recovered, the viruses on these swabs were unable to infect cultured cells, suggesting they were no longer viable.
- (c) The **US CDC** says that while it’s possible that respiratory droplets could land on surfaces and objects, and that someone could become infected by touching them, “this is not thought to be a common way that COVID-19 spreads.”

(d) The **WHO** says “despite consistent evidence as to SARS-CoV-2 contamination of surfaces and the survival of the virus on certain surfaces, there are no specific reports which have directly demonstrated fomite transmission.”

(e) **This does not mean surface transmission never occurs.** As the WHO points out, it is difficult to disentangle the relative contributions of inhaled droplets and contaminated surfaces, because people who have come into contact with potentially infectious surfaces have generally also been in close contact with infected individuals.

(f) **If surfaces do play a role in transmission, it's also likely that some like frequently touched surfaces are riskier than others.** Be particularly wary of objects that have been in contact with someone's mouth or nose, such as used facemasks, crockery and cutlery - if you touch them, be sure to wash your hands afterwards. And if someone in your household has COVID-19, or if you're working in a hospital or other workplace where people could be infected, frequently touched surfaces such as door knobs, hand rails, toilet flushes and hand towels might be more likely to harbour the virus, so be mindful of them and ensure they're frequently disinfected.

## References.

1. Trisha G et al. Ten Scientific Reasons in Support of Airborne Transmission of SARS CoV 2. The **Lancet**. Published 15 April 2021.
2. **World health Organisation.** Available at <https://www.who.int/news-room/q-a-detail/coronavirus-disease-covid-19-how-is-it-transmitted>.
3. **CDC.** Available at <https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/how-covid-spreads.html>
4. **GAVI.** Available at [https://www.gavi.org/vaccineswork/how-important-are-surfaces-transmission-covid-19?gclid=Cj0KCQjw-LOEBhDCARIsABrC0Tnd-uzP348NjE6Fr5VcBdieF59RyuY2-qlqJz6qFQLNZkp5V1NxAaUaAh\\_aEALw\\_wcB](https://www.gavi.org/vaccineswork/how-important-are-surfaces-transmission-covid-19?gclid=Cj0KCQjw-LOEBhDCARIsABrC0Tnd-uzP348NjE6Fr5VcBdieF59RyuY2-qlqJz6qFQLNZkp5V1NxAaUaAh_aEALw_wcB)

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