

Fresh air is so important in controlling the spread of Covid-19

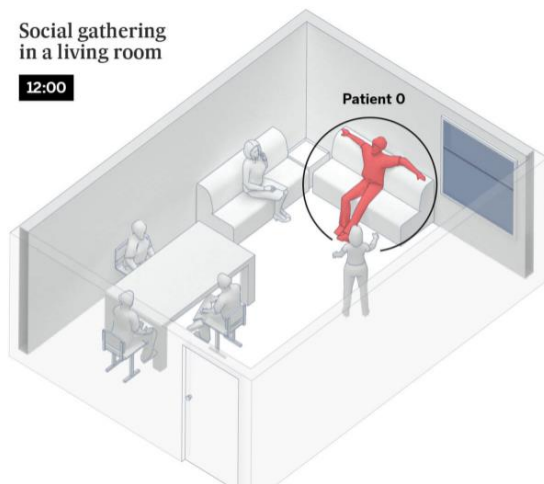
Covid-19 (coronavirus) is spread through the air, especially in indoor spaces. Transmission of aerosols – tiny contagious particles exhaled by an infected person that remain suspended in the air of an indoor environment play a huge part in spreading this virus. How does the transmission work? And, more importantly, **how can we stop it?**

The diagrams below are based on a home setting, but the concept is the same for any setting. Look at it closely and see just how effective letting air into the room can be in reducing the spread of the virus.

Irrespective of whether safe distances are maintained, if the six people spend four hours together talking loudly, without wearing a face mask in a room with no ventilation, it is extremely likely that five will become infected.

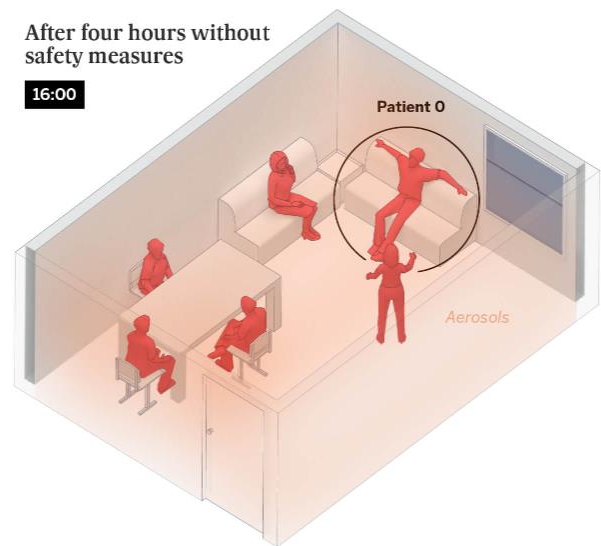
Social gathering
in a living room

12:00



After four hours without
safety measures

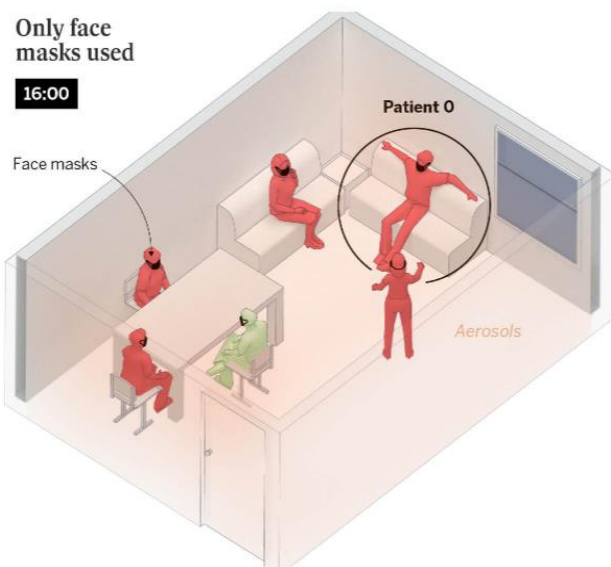
16:00



If face masks are worn, four people are at risk of infection. Masks alone will not prevent infection if the exposure is prolonged.

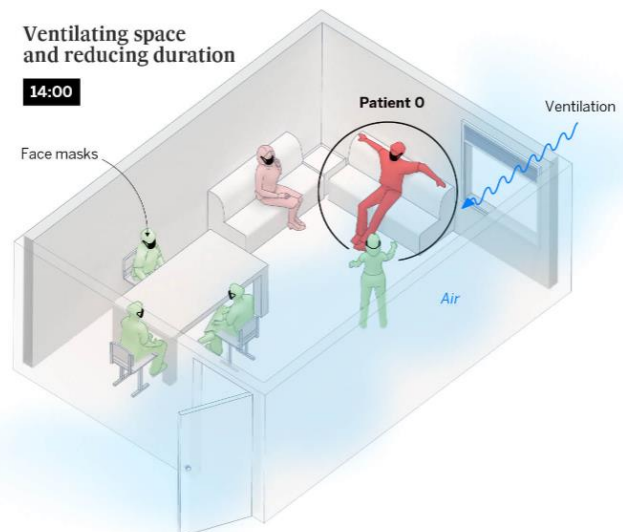
Only face
masks used

16:00



Ventilating space
and reducing duration

14:00



The risk of infection drops to below one when the group uses face masks, shortens the length of the gathering by half and ventilates the space used.

What can we do?

Reducing the time/duration of contact indoors: It is clear from the diagrams that the risk of infection drops to below one when the group uses face masks, shortens the length of contact and ventilates the space. People should not spend long periods of time in poorly ventilated spaces with other people.

It is recommended that organisations should take steps to ensure appropriate ventilation provision and improve ventilation or limit the occupancy of spaces that have inadequate ventilation. Shortening contact time with other people might sound hard, but it will play a huge part in reducing the risk of catching the virus or passing it to others.

Letting fresh air in (ventilation): Covid-19 spreads from person to person through small droplets, clouds of tiny airborne particles known as aerosols and through direct contact.

In addition to social distancing and other measures, you can also reduce the risk of spreading COVID-19 by:

- Letting plenty of fresh air into your home or room without getting uncomfortably cold if you have people working in or visiting you (only where permitted). You should do this during their visit and after they leave
- Avoid coming into contact with people in spaces with limited flow of fresh air such as rooms with windows that are never opened

To increase the flow of air you can:

- Open windows as much as possible
- Open doors
- Make sure that any vents (for example at the top of a window) are open and airflow is not blocked
- Leave extractor fans (for example in bathrooms) running for longer than usual with the door closed after someone has used the room

Let fresh air in while keeping warm: Particular attention should be paid to ensure that spaces can be effectively ventilated without significantly compromising the thermal comfort of occupants.

- You can wear warm clothes or layers if you're cold
- In colder weather opening the window a small amount can still help
- If windows have openings at both high and low levels (such as sash windows) using just the top opening can help avoid cold draughts
- If you're concerned about noise, security or the costs of heating, opening windows for shorter periods of time can still help to reduce the risk of the virus spreading

Where possible avoid fans, they are likely to add to the risk of the virus being spread. Room or desk fans don't introduce fresh air, they just move it around. The key is to let fresh air in to dilute the virus concentration in the room.

For more information on how ventilation can help the spread of covid-19, visit:

<https://www.gov.uk/government/news/new-film-shows-importance-of-ventilation-to-reduce-spread-of-covid-19>

Images obtained through El Pais <https://english.elpais.com/society/2020-10-28/a-room-a-bar-and-a-class-how-the-coronavirus-is-spread-through-the-air.html>