

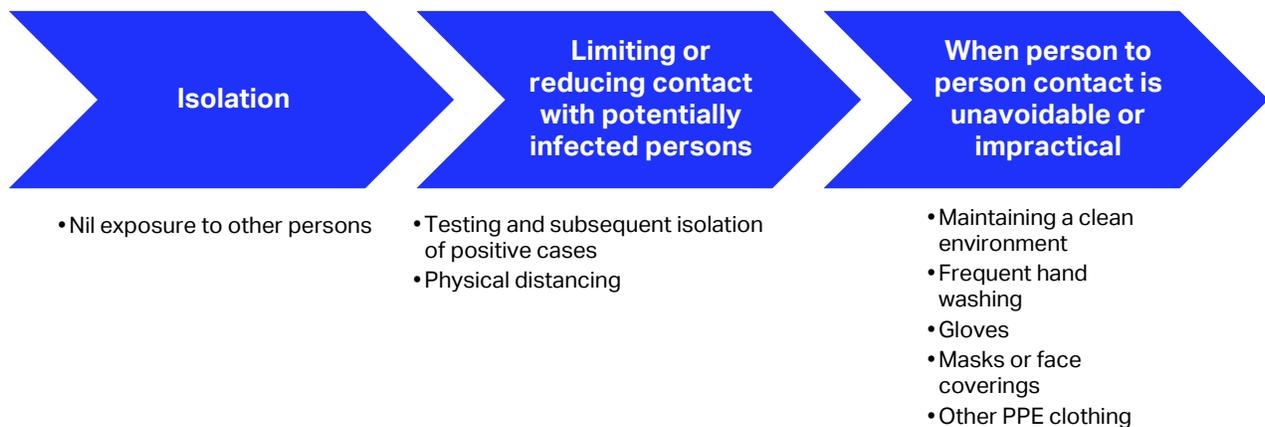


Physical distancing on aircraft

Should airlines be required to keep middle seats empty?

Layers of protection from infection

While transmission of the virus is ongoing, there are several layers of protection from infection according to what is possible to be achieved within the environment and appropriate to the circumstances.



Physical distancing onboard aircraft

The concept

The concept of physical distancing is that every person is considered to be infected and every person maintains a distance of 2 meters from others. This concept is familiar among the population as it is one of the measures imposed by governments in efforts to contain and slow the infection rate. It is however, just one of the measures enforced to the population of countries where infection is ongoing.

Travelers may expect the same physical distancing to be enforced on aircraft, however this concept does not reflect the additional screening (e.g. temperature check) of passengers before boarding, so that not all passengers are considered to be infected, nor does it consider the protections offered by the cabin environment.

Protections within the cabin environment

On board the aircraft, it is difficult to achieve 2 meter physical distancing, unless the aircraft loadings are so light as to be uneconomical and would require nil movement of persons within the aircraft cabin.

The cabin itself provides the following environment:

- The physical barrier of seat backs;
- In most cases the seating arrangement does not provide face to face seating positions;
- The direction of airflow from ceiling to floor reduces forward and aft movement of air;
- The installation of HEPA filters on newer aircraft types to help clean recirculated air;

Other measure adopted by airlines

Other protections to limit possibility of infection are already adopted by airlines including for example:

- Increased cleaning programs for all passenger touch points in the cabin;
- Use of Disinfection materials effective against Covid-19;
- Managing passenger boarding and disembarkation carefully to reduce person to person contact and avoid passengers from obstructing others getting to seats;
- Limiting passenger movement during flight, including the use of lavatories;
- Alteration of inflight services to reduce movement in the cabin;
- There is information available to suggest that such use of face coverings is effective at reducing droplet spread, and this is of potential benefit where physical distancing cannot be achieved.

Medical evidence to support the concept of physical distancing onboard aircraft

<https://www.iata.org/contentassets/f1163430bba94512a583eb6d6b24aa56/covid-medical-evidence-for-strategies-200423.pdf>

Little is available in the way of published research on in-flight transmission of COVID-19. One paper from Canada reports careful follow up of a long-haul flight on which someone later confirmed to have been unwell at the time, but no secondary cases resulted. More recently, a flight from USA to China with 11 people subsequently confirmed to be symptomatic at the time, similarly had at the time of writing, generated no secondary confirmed cases from around 300 passengers tested.

An informal survey of 18 major airlines in correspondence with IATA has identified, during Jan-Mar 2020, just three episodes of suspected in-flight transmission, all from passenger to crew, and a further four episodes of apparent transmission from pilot to pilot, which could have been in-flight or before/after (including layover).

There were no instances of suspected passenger-to-passenger transmission reported by the group of airlines. Furthermore, a request to a much larger group of 70 airlines (representing half of global passenger traffic) failed to identify any cases of suspected passenger-to-passenger transmission. Further data analysis is planned.

Mandating empty seats to increase distance between passengers

Mandating that airlines use empty seats to increase physical distance between passengers is not an effective health precaution on board aircraft for the following reasons:

- It does not afford a distance of 2 meters around each passenger;
- There is little medical evidence of passenger to passenger spread on board aircraft;
- To comply with safety regulations, children are required to be seated adjacent to their guardians who are responsible for them during a depressurization, so that they can fit their oxygen masks for them while remaining seated with their seatbelt fastened, this is not possible if empty seats are mandated;
- Passengers who have a fear of flying, or young children often require the reassurance of a fellow traveller alongside them during take-off, landing and turbulence;
- Passengers traveling together within the same family group living at the same residence do not have to maintain a physical distance from each other elsewhere, therefore might not be willing to be separated while on board aircraft.
- Advance seat assignment and seat preferences/requests from travellers may not be able to be granted, resulting in increased possibility of disgruntled and/or unruly passengers.

<https://www.iata.org/contentassets/df216feeb8bb4d52a3e16befe9671033/iata-guidance-cabin-operations-during-post-pandemic.pdf>