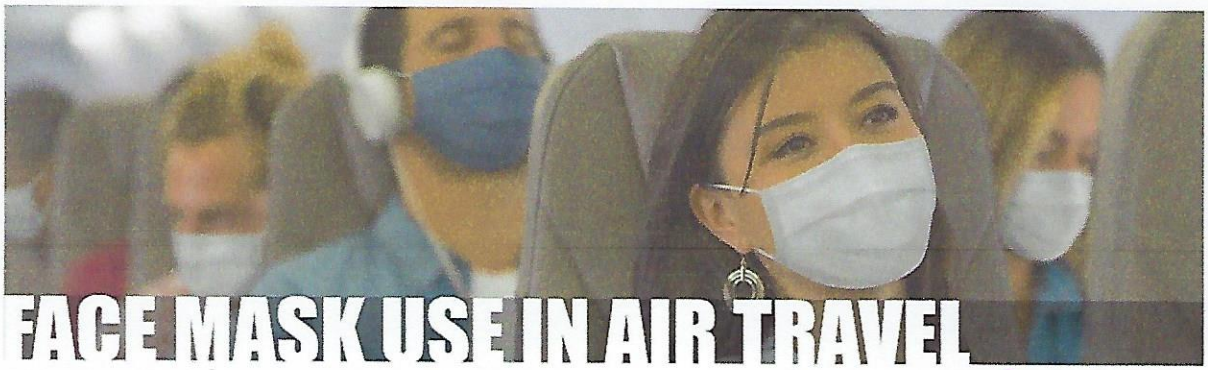

FACE MASK USE IN AIR TRAVEL

COVID-19 and transmission

COVID-19 is an infectious disease caused by a new type of coronavirus called Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2). It was first identified in China in late 2019 and has spread around the world, resulting in millions of illnesses and severe economic hardship.[1-3] It has also understandably resulted in a reluctance to engage in activities that involve proximity to other people.

Transmission of SARS-CoV-2 is similar to influenza ("flu") and other respiratory viruses: It may be spread directly through contact with respiratory particles from an infected individual or indirectly by touching highly contaminated surfaces and then touching one's face.[1,4,5] The virus generally enters through the nose and mouth and then deposits on the lining of the nasal passages or throat.[6,7] It can also enter through the mucous membranes surrounding the eye.[6]

If the immune system does not counteract SARS-CoV-2 during this initial phase, the virus moves down the trachea to attack the lungs and cause inflammation.[8] Symptoms include fever, cough, persistent extreme fatigue, difficulty breathing, congestion, nausea and vomiting, and new loss of smell or taste.[9-12] In most cases people are either asymptomatic or have mild symptoms (>50% of the infected population), but others develop more severe disease that can be fatal.[2,5,13] However, there are several actions that the air travel industry and passengers can take to significantly reduce the risk of infection during air travel, including the use of face masks.

Face masks: An essential protective measure while traveling

Face masks are an essential part of a comprehensive set of measures to reduce transmission of COVID-19 throughout air travel. Passengers and airport/airline employees should be required to wear face masks throughout their air travel journey – including time spent in the airport, boarding, in-flight, and deplaning. Since different masks offer different protection and understanding of proper use may vary, it is of critical importance that consistent requirements of proper mask selection and use be applied and clearly communicated for everyone throughout air travel.

The role of face masks in preventing COVID-19 infection during air travel

During air travel, passengers and crew are in a very well-ventilated space but in close proximity to one another for an extended period of time. SARS-CoV-2 infections can occur through the emission of virus-containing respiratory particles that are aerosols (≤5 μm in diameter) and droplets (>5 μm in diameter) exhaled by infected people when coughing, sneezing, speaking, and even through normal breathing.[1,4,14] While big particles fall quickly to the ground, smaller particles are lightweight and can remain suspended in the air.[5] Face masks help block respiratory particles, yielding added protection in the aircraft environment.

If symptomatic individuals are coughing or sneezing, other people frequently try to distance themselves to avoid transmission. However, individuals who are infected but do not develop symptoms (asymptomatic) and those who are early in disease course and have not yet developed symptoms (pre-symptomatic) can still spread the virus by normal breathing and speaking, and they may be unaware that they are infected and contagious.[5] Pre-symptomatic or asymptomatic individuals cause an estimated 50% of the