

Confident Travel Initiative



A Multi-layered Approach to Protect the Air Travel Journey









HOME

DEPARTURE AIRPORT

AIRPLANE

ARRIVAL AIRPORT

CHECK-IN & SELF EVALUATION











CLEANED AND DISINFECTED



New Technologies



Cabin airflow



2-3 minutes



HEPA



Face mask



ENHANCED PROCEDURESSuperior Air Quality





DATA-DRIVEN OPTIMIZATION

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Boeing partners in flight















NATIONAL ACADEMY OF ENGINEERING















































There are very few reports of transmission in the air travel journey

2020 Travel

30.4M GLOBAL FLIGHTS 2.1B
GLOBAL
PASSENGERS

Less than 60

KNOWN
TRANSMISSIONS
DURING AIR TRAVEL*



Cleaning technologies tested destroy the live virus Clean Airplane Program









How Boeing knows this is effective Clean Airplane Program











Risk of virus spread on airplanes is low

Increased airflow and stronger filters remove more particulates

TYPICAL RESIDENCE OFFICE & BUSINESSES AIRPORTS AIRPLANES



What is filtered out of the air? (Based on typical air filter [MERV] ratings.) Particulates Removed (MERV 2-6): **Dust/Lint** ✓ Pollen Particulates Removed (MERV 5-8): ✓ Mold **Dust Mites Dust/Lint** Pollen Particulates Removed (MERV 13+): **Dust/Lint** √ Some Viruses ✓ Smoke **Pollen** ✓ Bacteria ✓ Pet Dander ✓ Allergens ✓ Mold ✓ Smog ✓ Dust Mites Particulates Removed (MERV 17+): ✓ Virus √ Smoke **Dust/Lint** ✓ Bacteria ✓ Pet Dander **Pollen** ✓ Allergens Mold

✓ Dust Mites

√ Smog



Air flow & filtration in the airplane cabin is designed to keep passengers and flight crews healthy

Outside air continuously flows into the cabin





Air is supplied to the cabin from overhead outlets. The volume of cabin air is exchanged **EVERY 2 TO 3 MINUTES**.



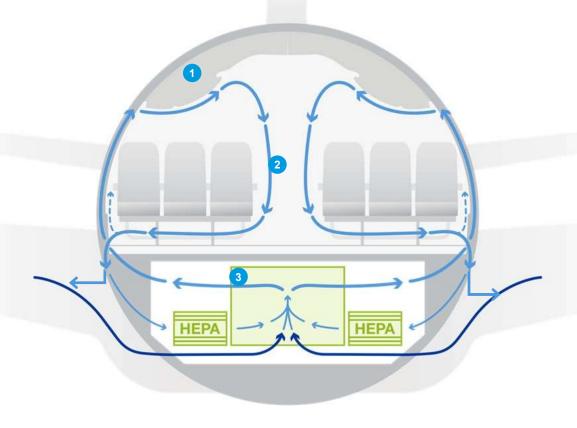


Air flows primarily **CEILING TO FLOOR**, not front to back, to
minimize the spread of contaminants.

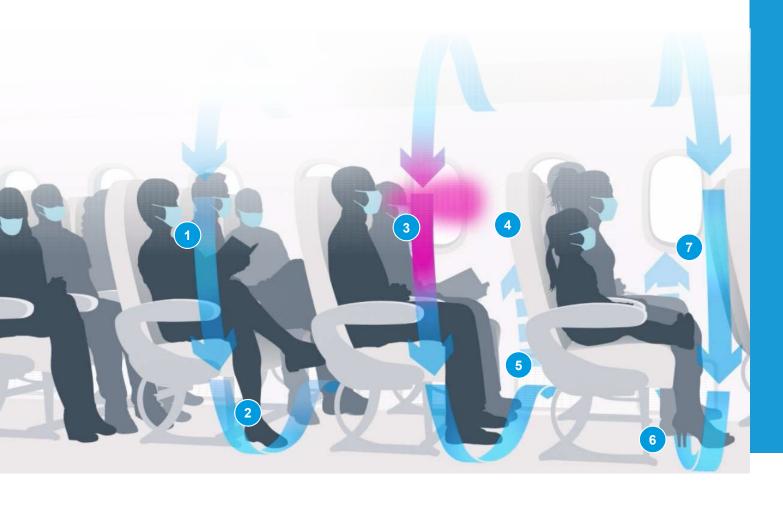




Air passes through HIGH EFFICIENCY PARTICULATE AIR (HEPA) filters which are 99.9%+ effective at trapping viruses and bacteria.

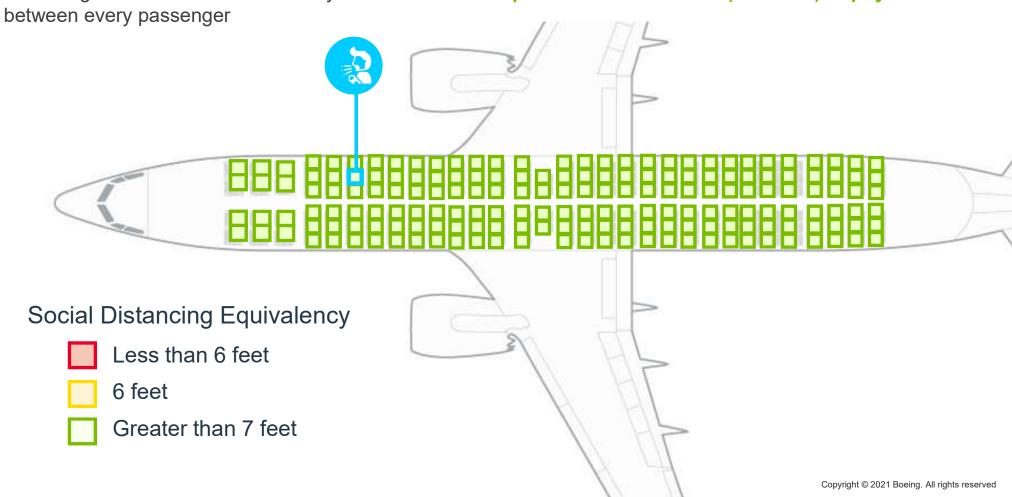


What makes the air quality better?



- 1. Cabin air flows primarily from ceiling to floor
- 2. The circular air pattern limits particle movement
- 3. Airflow pulls cough particles down
- 4. The seat position acts as a barrier and minimizes particle spread
- 5. Airborne particles flow out through the floor grilles
- 6. HEPA filters trap more than 99.9% particles including spores, bacteria, viruses
- 7. New fresh, filtered air constantly fills the cabin 20-30 times per hour

Airplane cabin physical distancing effect
The design of the cabin and airflow system creates the equivalent of over 7 feet (2 meters) of physical distance



Airplane cabin physical distancing effect The design of the cabin and airflow system creates the equivalent of over 7 feet (2 meters) of physical distance between every passenger Social Distancing Equivalency Less than 6 feet 6 feet Greater than 7 feet Copyright © 2021 Boeing. All rights reserved



Academia and industry research support Boeing findings





Summary



- The risk of contracting COVID-19 during air travel is extremely low compared to typical daily activities
- The design of the cabin and airflow system creates the equivalent of more than
 7 feet (2 meters) of space between every passenger even on a full flight
- Boeing and the University of Arizona conducted live virus testing to determine that current cleaning solutions effectively destroy the virus that causes COVID-19
- We are all part of the solution

