

A Brief Note on Precautions for Airborne Hazards

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Any illness caused by a microorganism that is spread through the air is referred to as an airborne disorder. A number of pathogens, including bacteria, viruses, and fungi, cause many clinically significant airborne diseases. These species can be spread by sneezing, coughing, liquid spraying, dust spreading, talking, or any other behavior that produces aerosolized particles. It's important to note that airborne diseases don't include disorders caused by pollution, pesticides, smog, or dust in general. "Airborne transmission of infectious agents refers to the transmission of disease triggered by the distribution of droplet nuclei that remain infectious when suspended in water over long distances and time," according to the World Health Organization. Depending on whether it is only transmitted through droplet nuclei or whether it has several carriers, airborne transmission may be classified as obligate or preferential

People with some infections can transmit disease through the air when they cough, sneeze, or speak, releasing nasal and throat secretions. Some viruses or bacteria take to the air and float around, landing on humans or surfaces. Pathogenic species take up residence within you as you breathe in airborne pathogens. You may also pick up germs by touching a germ-infested surface and then touching your own eyes, nose, or mouth.

Diseases that are Spread across the Air

- Corona virus and COVID-19
- Common cold
- Influenza
- Chickenpox
- Mumps
- Measles
- Whooping Cough
- Tuberculosis
- Diphtheria

Precautions of Airborne Diseases

In order to prevent infectious agents from spreading through the air, steps must be taken

Measles, Severe Acute Respiratory Syndrome (SARS), Varicella (chickenpox), and Mycobacterium tuberculosis are only a few of the diseases that require airborne precautions. Patients that are contaminated with microorganisms spread by airborne droplet nuclei are subject to airborne precautions.

- Prior to each use, fit-testing must be repeated annually, as well as a fit-check / seal-check.
- Respirator with Powered Air Purification (PAPR)
- Additional Personal Protective Equipment (PPE)
- Put on a N95 respirator.
- The respirator should be worn before entering the room and removed after leaving it.
- Isolation Space for Airborne Infections (AIIR)
- AIIR rooms must have a negative pressure room with a minimum of 6 air exchanges per hour (existing facility in compliance with codes at time of construction) or 12 air exchanges per hour (new construction/renovation) at a minimum
- Exhaust to the outside or by HEPA filtration (High Efficiency Particulate Air).
- If you don't have access to an AIIR, you can Provide the patient with a facemask (e.g., operation or surgical mask) and immediately position the patient in an exam room with a closed door.

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