

Trane Clean Effects vs. Biological Aerosols

Biological contaminants often found in indoor air include fungi, bacteria, allergens and viruses. These organisms can cause a large variety of symptoms from allergies to infections and the following may provide some insight into the importance of having a good filter installed such as Trane Clean Effects.

Allergens are proteins that can trigger a specific immune response in people and are produced by plants (pollen), animals, insects and molds. Reactions vary but include hay fever, runny or stuffy nose (rhinitis), and



asthma attacks. Animal and insect allergens are proteins so are not considered to be alive while plant and mold allergens are living organisms but, nevertheless, all have the potential, living or not,

to cause an allergic reaction so the most sensible way to reduce these particles is to remove them from the air stream.

Certain types of bacteria can cause respiratory infections such as pneumonia, tuberculosis and Legionnaires Disease and also produce endotoxins which in high

concentrations can cause an irritant effect and other health concerns. Once captured by an air cleaner the bacteria die by desiccation from the airflow making Trane Clean Effects, once again a very important part of an air distribution system.

Viruses are not considered to be “alive” so therefore cannot be killed but can be rendered inert or non-infectious by ultraviolet light. Common airborne viruses are influenza, common cold, chicken pox and measles and are commonly released into the air

with respiratory droplets from an infected individual coughing, sneezing and talking which may also contain



bacteria. It is said that these virus ridden droplets can circulate 5 to 7 times through the air circulation ducts unless an effective means of collection such as Trane Clean Effects is installed as the primary filtration system.

