



How a Family Practice Doctor Configures Her Space

Dr. Edmunds is a family practitioner with a focus in pediatric care. She leases the space that her practice is located in, which means that someone else owns her building. Her workspace includes one waiting room, two bathrooms, three exam rooms, one breakroom, one administrative room, and one utility room.

Her space is located in a strip mall with an HVAC system and no windows. Since the building hasn't been upgraded in years, the HVAC system is over 20 years old. It's impossible to efficiently upgrade this system, and Dr. Edmunds doesn't have the money or permission from her landlord to drastically alter the building's infrastructure.

In order to keep her patients safe, Dr. Edmunds decides to invest in portable air sanitization. To accomplish this, she determines where people are most at risk. Airborne transmission risk is highest in poorly ventilated, high-traffic areas. Given Dr. Edmunds' space, three exam rooms, one breakroom, and one waiting room are hotspots. Each of these areas is poorly ventilated with multiple occupants that produce high aerosol levels. Aerosolized droplet production is determined by the types of activities in which room occupants engage. These activities include speaking, breathing, sneezing, coughing, yelling, and singing. Rooms with the highest occupancy—in this case, the exam rooms, breakroom and the waiting room—pose the highest risk.

To eliminate these hotspot danger zones, Dr. Edmunds must determine the dimensions of her space. Those numbers will be used to calculate the volume of air that is contained therein. To do this, Dr. Edmunds measures the length, width, and height of each room. She then inserts these numbers into Omni CleanAir's "Configure My Space" tool. This tool calculates each room's volume and determines which Omni CleanAir machine is best suited in each individual space. Based on the machine selected, the tool will also calculate the Air Changes per Hour (ACH), which is a measure of how many minutes it takes to accomplish one air change.

The number of air changes per hour a machine can deliver matters. Think about it this way—if a sick person enters Dr. Edmunds' waiting room and coughs, a cloud of aerosolized respiratory droplets are released into the air. These droplets, especially the smaller ones, can remain suspended in the air for hours and travel long distances. If a healthy person comes into the office and inhales these droplets into their respiratory tract, they can become sick. If, however, the air is rapidly and continuously sanitized, in less than five minutes the threat is gone.

Once Dr. Edmunds inputs the length, width, and height of each room, Omni CleanAir's configurator translates those numbers into solutions for her entire workspace. It will tell Dr. Edmunds how many air changes per hour she'll receive with the model we recommend. For instance, her waiting room is 20 feet long, 20 feet wide, and 8 feet high. For this room, we recommend the OCA900. This space is 3,200 cubic feet, which means the OCA900 will process all the air in a room in 3.5 minutes making the air in Dr. Edmunds' waiting room much safer to breathe.