In the Air Tonight

What is **IN THE AIR** in your office? Patients **come and go** all day. They sit in the waiting room, bring a few family members or friends, and sometimes bring their colds and other sicknesses.

There is the mother who says: “I didn’t want to miss this appointment. My son is home sick from school so I brought him with me” and promptly plunks him down in the waiting room. Then there is the patient who comes in and decides to cough her way through her procedure, or perhaps a stoic staff member does not want to stay home. We are faced with these situations daily. We just hope we do not go home feeling worse than when we came to the office.

Then, of course, there are the things we throw into the mix. Spinning burs with air and water spray, air water syringes, as well as sonic and ultrasonic scalers and instrument cleaners shooting all sorts of things into the office atmosphere. Studies have shown that up to 80% of these aerosols remain in the air, just floating around the office.

During the summer, the air conditioning seems to do a decent job of recirculating the air, but the key term here is recirculating. Bacteria, viruses, and all sorts of airborne things are being blown around the office.

Some of us have installed HEPA filters in the HVAC system, while others may have little room units scattered around the office. These filters have to be replaced one or two times a year and require a strong air flow to push through them. This creates some noise and uses a fair amount of energy.

A new company from Toronto, Canada, has launched an interesting product to address this issue. The company, Surgically Clean Air, shipped me the largest box I have ever received to do a product evaluation. The 301F Air Purifier stood about four feet high and, as per instructions, it was placed in the hallway leading to my treatment rooms.

This unit, which is remarkably quiet, has six stages of air purification, as well as sterilization. There is a series of filters, which can remove particles as small as .01 microns, in comparison to HEPA’s 0.3-micron filters.

In addition, by using UV lights within the filtration area, microorganisms are destroyed. The system recycles the office air (at least the 1,600 square feet area in my office) every 30 minutes. In addition, the unit has an option to emit ionizing air, which attaches to airborne particles and drops the particles closer to the floor.

My staff and I found a few interesting things since installing this unit. Clinically, I did not have air samples analyzed (the company does have extensive research available). But, anecdotally, there has not been a full-time employee who has missed work due to a cold or similar ailment.

There is a tremendous reduction in dust. As an experiment, we asked the cleaning people not to dust the pictures hanging on the walls. After six weeks, the frames still passed the white glove test.

When we installed the 301F, we cleaned out some of the treatment room computers. There is a lot of dust that accumulates in the fan areas in back of the computers (the power supply area), as well as inside the boxes. Occasionally, you should open up the computers after disconnecting the power cord and blow dry compressed air throughout the units.

There are many small ventilation holes that get clogged with dust, along with areas inside near fans and heat sinks that cause computers to overheat. You might notice computers slowing down. This cleanout can prevent and/or cure this process. The 301F can help reduce the dust and keep these computers running cooler for a long time.

Since the unit is sitting at the entrance to the treatment rooms, the patients have to walk past it. We put a large sign on the side stating that this office has “Surgically Clean Air.” The sign has elicited many comments and questions, but most patients have been impressed that we are so concerned for their welfare.

Of course, with a smirk on our faces, we agree. We realize that we are equally protecting ourselves from them! There is more information available on the company’s Web site at www.surgicallycleanair.com. Breathe deep!

Dr. Paul Feuerstein installed one of dentistry’s first computers in 1978. For more than 20 years, he has taught technology courses. He was named “Clinician of the Year” at the 2010 Yankee Dental Congress. A general practitioner in North Billerica, Mass., since 1973, Dr. Feuerstein maintains a Web site (www.computersindentistry.com) and can be reached by e-mail at drpaul@toothfairy.com.