

Dirty evacuation lines stink, in more ways than one

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I walk into the dental office and am immediately met with a foul odor. During the consult, I close my eyes and try to picture myself standing in a large field during spring, with a light breeze blowing the subtle fragrance of flowers through my hair and clothes. Yet my imagination fails to help me disguise the foul odor permeating the air.

“You don’t smell that?” I ask the assistant again, opening my eyes and wrinkling my nose. The smell is coming from somewhere in the room.

“No, I honestly don’t know what you’re talking about,” she replies.

But it doesn’t take long for me to discover that bacteria in the evacuation lines is the source of the unpleasant odor wafting through the air.

Olfactory fatigue, or odor fatigue, is the inability to distinguish a smell after one has been exposed to it for a prolonged time. Because olfactory glands become accustomed to the same scent over time, it’s difficult to know when a bad odor is present. In this case, it smelled like rotting garbage decaying in the hot sun. The office staff confessed they did not routinely clean the suction lines and did not have a log that showed the lines had ever been cleaned at all. The lack of proper care resulted in bacterial overgrowth and biofilm within the traps and lines, in addition to saliva, blood, and other organic debris.

Backflow and proper maintenance

Many years ago, the Centers for Disease Control and Prevention (CDC) addressed backflow. Backflow, as you know, is when previously suctioned fluids in dental tubing flows back into a patient’s mouth. The analogy the CDC used is when your beverage flows back into the cup after you use a straw. Backflow also occurs when the suction tubing is elevated above the patient’s

mouth. Because of this, there is the possibility that one patient could suck up the saliva and other infectious materials of the previous patient. For this reason, dental staff members should advise patients not to close their lips around the tip of the ejector. Bacteria and infectious particles lurking in suction lines can expose patients to harmful substances and lead to bad smells in the office.

The CDC advises dental professionals to contact the manufacturer of the dental unit to review proper use and maintenance procedures, including appropriate cleaning and disinfection methods. The Organization for Safety, Asepsis and Prevention (OSAP) also cites leading infection control experts regarding daily maintenance of the evacuation system, including the use of cleaners.

In addition to prevention of cross contamination, proper maintenance of the entire vacuum system ensures that the units are functioning properly. This prevents costly repairs. Your time is planned to the minute in patient care, and a unit with decreasing suction capabilities is stressful. Suction lines that do not perform up to par can decrease productivity and profits.

Products to clean and disinfect evacuation lines should be used in accordance with the manufacturer’s instructions for use. They must also be compatible with the Environmental Protection Agency’s (EPA) amalgam separator 2020 installation requirements. This prohibits the use of bleach-based cleaners and requires that the product not have a pH lower than 6 or greater than 8 as it may react with mercury.

Products such as Sani-Treet Plus and Sani-Treet Green (Enzyme Industries) are compatible with amalgam separators and have a neutral pH. They can be used as an instrument soak and ultrasonic solution. As an evacuation line



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cleaner, the ecologically friendly surfactants and enzymes naturally digest, clean, and deodorize filters, keeping lines clear of debris while maintaining optimum suction in evacuation equipment. They are available in lemongrass-lavender, peppermint, and meadow scents.

Products that multitask can save time and money, especially if they are nonfoaming, and nontoxic. A noncorrosive product helps prolong the life of the instruments. Foam is of concern because it can wreak havoc on evacuation systems, which results in costly downtime and equipment repair. Finally, a nontoxic product is safer for the environment and the people using it.

As a reminder, evacuation lines and ultrasonic solutions should be cleaned daily, the latter more often if the solution becomes cloudy or has a large amount of what one office called “the yucky floating stuff.” Because the used instruments are considered biohazard, a lid should always be used to prevent aerosolization and instruments should never be handled without appropriate personal protective equipment.

In modern dental practices, busy and sometimes overwhelmed teams can use all the help they can get. Products such as Sani-Treet Plus and Sani-Treet Green can help clinicians maintain instruments and equipment at an economical price point. That sounds—and smells—divine! **RDH**



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