

THE HYGIENE PERSPECTIVE

CLEAN WATER STARTS WITH A CAREFUL ROUTINE

Keep your dental unit waterlines safe, clean, and free of bacteria with a combination of the right materials and a simple yet effective disinfecting routine

According to the Centers for Disease Control and Prevention, any device that enters a patient's mouth—whether it's a handpiece, syringe, or ultrasonic scaling tip—should be connected to the dental unit waterline (DUWL) and flushed for at least 20 seconds between patients. But this process might be rendered ineffective if your DUWL contains biofilm, a colonization of bacteria that places your patients, especially the elderly or those who are immunocompromised, at risk. The specific disease-causing microorganisms that can form in dental unit water are *Legionella*, *Pseudomonas aeruginosa*, and nontuberculous *Mycobacterium*.

The small-diameter tubing and low flow rates associated with DUWLs create an attractive environment for these microorganisms. In addition, periods of stagnation and the risk of oral fluid release during procedures generate a breeding ground for bacteria and deposits like salt, mineral, and hard water to thrive. So, when bacteria inevitably settle and replicate on the interior of tubing surfaces, what can be done?

To maintain the EPA's regulatory standards for drinking water of ≤ 500

colony forming units per milliliter of heterotrophic water bacteria (CFU/mL HPC), dental teams should first connect with their dental unit manufacturer about the proper approach to maintaining safe dental water.

Fortunately, there's no shortage of products that can easily become part of your disinfecting routine while improving the safety and quality of your practice's DUWLs.



Monarch CleanStream Evacuation System Cleaner



Carefully formulated from years of research, Air Techniques' **Monarch CleanStream Evacuation System Cleaner** helps remove waterline build-up while maintaining the equipment's peak performance and suction. Its nonfoaming, highly concentrated formula is very economical, and a 3-step process allows for easy dispensing.

Without the use of aggressive chemicals, the powerful, pH-neutral formula in Air Techniques' **Monarch**

Lines Cleaner attacks accumulated deposits in tubing lines. Designed for weekly lines cleaning of independent water bottle systems, this solution protects against mineral, lime scale, hard water, and salt deposits.



Sterilil Straw V2



With a quantified EPA claim of <10 CFU/mL HPC purity, **Sterilil Straw V2** eliminates the hassle of dropping daily shock tablets. Sterilil's latest version retains several core features of the original Straw, including the residual silver disinfectant, built-in shock, and a functional lifespan of up to 365 days. A Luer Lock fitting needs only a push and a twist to install.

The **Sterilil System G5** utilizes 6 stages of purification to provide on-demand purified and treated dental water. The system now comes with a touchscreen, allowing users to see live diagnostics and each

cartridge status, while a patented Class A UV light is 55% stronger and kills 99.99% of viruses.

A critical step to every tablet protocol is a shock treatment, and Sterisil's **Citrisil** tablets clean and maintain DUWLs while killing preexisting odor-causing bacteria. Safe for dental equipment, patients, and the dental team, the tablets eliminate the need to empty bottles and purge lines at the end of each day. Citrisil maintains antimicrobial tubing and does not contain oxidizers like iodine or chlorine.

Crosstex's DentaPure cartridges make DUWL treatment simple, effective, reliable, and safe. By removing nonallergenic elemental iodine, the **DentaPure DP40B** independent water bottle cartridge offers 60 days (or 40 L of water if usage records are kept) of safe, compliant dental unit water. The cartridge can be installed onto a unit's existing water bottle pickup tube via quick-connect fitting. Once installed, there is no need to monitor or use a shocking protocol.

The **DentaPure DP365M** municipal water bottle cartridge offers a simple way to maintain incoming DUWLs that are plumbed directly to city water. One installation using included poly-flo fittings provides 365 days (or 240 L) of safe water. When using either cartridge system, Crosstex reminds you when it's time for a replacement.

Patterson Waterline Maintenance Tablets inhibit the growth of microbial contamination in DUWLs, with 50-tablet packages that treat either 750 milliliters or 2 liters of water.



Sterisil System G5



Patterson Waterline Maintenance Tablets



Testing the Waters

Water quality maintenance is most effective when you accurately test the water coming out of your DUWLs. A range of tools are available to do just that—from simple systems that estimate the number of free-floating bacteria in your waterlines to more complex water quality indicators that can detect any waterborne bacteria within a reasonable incubation time. In-office testing kits and mail-in services are a great place to start testing the waters.

A PROVEN FORMULA FOR CLEAN LINES

Reaching for the right tool is essential in every corner of dentistry, and there's no tool more important than what's used to keep the operatory clean and safe for both patients and staff. Air Techniques' Monarch family of cleaning and sanitizing products makes reaching for the right tool simple through its color-coded approach to infection prevention.

So, when it comes to keeping your equipment clean, including your dental unit waterlines, reach for yellow.



Proof in Numbers

Offering shock and maintenance treatment in one product, Monarch Lines Cleaner removes biofilm containing odor-causing bacteria from dental unit waterlines with a fast, effective, and efficient application. Its pH-neutral composition skips the harsh and aggressive chemicals to be gentle on equipment, ensuring that valves are safe from corrosion and staining.

The proof is in the numbers (or in this case—bacterial concentrations), and a recent study* offers dramatic validation. Within just 1 week of initial shock treatment with Monarch Lines Cleaner, samples from 5 waterlines in 2 practices met or were less than the CDC-recommended 500 CFU/mL, and remained that way throughout the study window.

Simple & Compatible

Compatible with any type of independent water bottle system, Monarch Lines Cleaner is ready to use with no mixing or diluting required. After coating the tubing walls nightly for 3 weeks to ensure any buildup in waterlines is eliminated, it is used for weekly lines cleaning.

5 WAYS MONARCH LINES CLEANER SIMPLIFIES WATERLINE TREATMENT

- Ready to use with no mixing or diluting needed
- One 500-mL bottle can treat a single operatory for months
- Compatible with any independent water bottle system
- Powerful formula attacks deposits in tubing lines
- Can be used during procedures such as hygiene scaling

*Source: <https://www.airtechniques.com/wp-content/uploads/AirTech-MonarchWaterlineCleanerStudyResultsReport.pdf>