

**Crashing the BioFilm Party**  
**RDH Under One Roof July 24, 2021**  
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**Why do we care about dental unit waterlines?**

**Biofilm:**

- Biofilm is growing in the small dental tubing because of a high surface-to-water flow ratio.
- Bacteria can reach 200,000 CFU/mL in less than 5 days in brand new lines

\*Barbeau J., Tanguay R., Faucher E., Avezaard C., Trudel L., Cote L., Prevost AP. Appl Environ Microbiol 1996; 3954-9

**Patients:**

- Patients have died or been hospitalized because of contaminated dental unit waterlines.

**Clinician:**

- What are we breathing? Dental Unit waterlines are a major basis of aerosol bacteria in the dental environment

Kumar, P. and Subramanian, K., 2020. Demystifying the mist: sources of microbial bioload in dental aerosols. *Journal of Periodontology*.

**CDC Guidelines**

- Even if your state hasn't adopted CDC guidelines we are still required to provide a safe dental visit.
- Most Dental Equipment Manufacturers have updated their IFUs in the last few years to protect themselves from the new FDA recommendations for Dental Unit Manufacturers: <https://www.fda.gov/medical-devices/dental-devices/dental-unit-waterlines>

**How:**

**Shock-** use a strong disinfectant to clean the lines

- Shock Before Initial Use of a Water Treatment Product
- Shock at least every quarter
- When your waterline test reveals a contamination level of 200 CFU/ml or more

**Test-** the only way you know if your lines are in compliance and your product is working.

OSAP recommends testing monthly on each dental unit, if you pass for 2 consecutive monthly cycles move to quarterly testing

- Mail-in testing
- In-Office testing

**Treat-** using a low-level antimicrobial to maintain clean lines.

No matter what product you choose you must follow the instructions for use!

- Tablets
- Straws
- Liquids

**Maintain-** establish a Standard Operating Procedure (SOP) and make sure the entire team understands the why.

- Appoint a Waterline Warrior
- Test and Document your results
- Flush lines at the beginning of the day and in between patients
- Choose a maintenance product and use it according to the IFUs
- Re-test quarterly (and document)
- Shock as needed