

# How to Be Waterline Compliant

The Centers for Disease Control (CDC) *Guidelines for Infection Control in Dental Health-Care Settings – 2003* has provided dental healthcare professionals with well-established scientific basis for dental water safety, focusing on three pillars for dental water safety and compliance.

The American Dental Association (ADA), US Food & Drug Administration (FDA), the Organization for Safety, Asepsis and Prevention (OSAP), and 40 state dental boards support following the CDC guidelines on each of the recommendations detailed below for achieving and verifying safe dental water.



## THIS IS WHAT DENTAL WATER COMPLIANCE LOOKS LIKE:

### 1. Surgery Water

#### A. Sterile Water

#### B. Sterile Delivery Systems

ADA: "Dental units cannot reliably deliver sterile water even when equipped with independent water reservoirs because the water-bearing pathway cannot be reliably sterilized. Delivery devices (e.g., sterile bulb syringe or single-use disposable products) should be used to deliver sterile water... The CDC defines oral surgical procedures as those that involve the incision, excision, or reflection of tissue that exposes normally sterile areas of the oral cavity."

### 2. Dental Unit Water ( $\leq 500$ CFU/mL)

For all other procedures, dental practices should treat and test the water from dental unit to ensure it meets the EPA standard for potable water ( $\leq 500$  CFU/mL). The following methods are agreed upon as acceptable and beneficial for maintaining dental water quality.

#### A. Use of Chemical Treatments

ADA, CDC, FDA, & OSAP: Follow dental unit manufacturer recommendations to maintain water quality

#### B. Use of Shock Treatments

CDC: "Removal or inactivation of biofilm requires chemical germicide" (shock treatment)  
ADA: No specific mention

#### C. Independent Water Reservoirs (Water Bottles)

CDC: "methods demonstrated to be effective include self-contained water systems combined with chemical treatment..."

#### D. Flush for 20-30 Seconds

CDC: Flush water/air lines between patients for "20-30 seconds at a minimum"  
OSAP: "Flush at the beginning and end of day" (2 minutes)

### 3. Verification of Compliance

Treating dental water is important, but alone does not protect your practice from dental board discipline or legal liability. Practices should keep documentation and records of SOPs, staff trainings, and waterline test results proving their protocol has been effective.

#### A. Regular Monitoring (Testing)

ADA, CDC, FDA: Follow dental unit & treatment manufacturer recommendations to determine frequency of regular monitoring  
OSAP: If no manufacturer recommendation is made, test monthly until consecutive passing months, then quarterly  
OSAP: Request laboratory test using R2A Agar or Filtration methods; if using in-office testing methods, test more frequently

#### B. Standard Operating Procedures & Staff Trainings

CDC: "DHCP should be trained regarding water quality, biofilm formation, water treatment methods, and appropriate maintenance protocols"

# Waterline Maintenance Recommendations from Manufacturers

The ADA, FDA, CDC, and OSAP suggest consulting with the dental unit and treatment product manufacturers to determine acceptable methods to maintain dental water quality. However, many manufacturers have not caught up with the latest in waterline research and guidelines. In the absence of testing frequency recommendations, OSAP recommends quarterly testing at a minimum.

## DENTAL UNIT MANUFACTURERS

Waterline Recommendations	A-dec	Pelton & Crane	Midmark	Belmont	Ritter	Forest
<b>Shocking</b>	After Failed Test	*Monthly	When Testing Reveals >200 CFU/mL	After Failed Test	Initial, then as Needed	When Testing Reveals >200 CFU/mL
<b>Treatment</b>	ICX Tablet	Tablet or Straw	Straw	-	Tablet	Tablet or Straw
<b>Testing Frequency</b>	Monthly, then Quarterly	*Monthly	Monthly, then Adjust	Monthly, then Quarterly	Monthly, then Adjust	Monthly, then Quarterly
<b>Remediation</b>	Shock & Retest	-	Shock	Shock & Retest	-	Shock

\*Recommendation based on Pelton & Crane's Treatment Aqualiant

## TREATMENT PRODUCT MANUFACTURERS

Waterline IFU's / Recommendations	ProEdge BluTube/BluTab	A-dec ICX	Sterisil Straw	Sterisil Citrisil	Crosstex DentaPure	Crosstex Liquid Ultra
<b>Shocking</b>	8 Weeks to Quarterly	After Failed Test	Initial & After Failed Test	Monthly	Prior to Install	Weekly
<b>Treatment</b>	Every Refill	Every Refill	Every 240L	Every Refill	Every 240L	-
<b>Testing Frequency</b>	Monthly, then Quarterly	Monthly, then Quarterly	As Needed	Appropriate Intervals	Follow All Recommended/ Required Guidance	Regular Testing
<b>Remediation</b>	Shock & Retest	Shock & Retest	Shock	Shock	-	-

"OSAP recommends that monitoring be performed periodically regardless of the product or protocol used to manage dental procedural water quality, even when manufacturer directions for monitoring are absent or unclear... When there are no manufacturer directions available for dental units... OSAP recommends that periodic monitoring and inspection should be performed according to the directions for use provided by the treatment product manufacturer or at least monthly on each dental unit or device... If monitoring results indicate water quality is acceptable for two consecutive monthly cycles, the frequency of testing may be reduced, but should not be less than every three months (p. 11, 17)."



- [Dental Unit Water Quality: Organization for Safety, Asepsis and Prevention White Paper and Recommendations- 2018](#)



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**Questions?**  
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