Technique for obtaining a water sample
For all dental treatment water testing

1) Pre-Sampling Preparation

- Read Instructions for Use (IFU) for the product being used
- If using an outside lab, remove and freeze ice pack for safe, chilled transport (Length of freezing time dependent on product IFU)
- Select appropriate number of vials/tests based on number of operators and specific lines in each operatory to be tested.

Label each vial/test using a wet pen (or indelible ink marker) with the treatment room # and specific line to be tested

- It is recommended to use one vial/test per line, per treatment room (e.g.: 3 vials: one each for AWS, ultrasonic scaler and water lines for handpieces
- If CFU counts exceed recommended levels, a communal sample will not allow identification of line-specific contamination

Perform hand hygiene

- If using soap and water, follow CDC guidelines
- If using alcohol-based hand rub, follow product manufacturer IFUs
- Don disposable treatment gloves

2) Treatment Room Preparation

- Remove dynamic instruments attached to the dental unit lines to be tested. Follow CDC guidelines for sterilization prior to patient use
- Wipe contact areas with aseptic prep pad allowing appropriate dwell/contact time per manufacturer IFU

If using a metal AWS Tip:

- Remove it
- Wipe contact areas with an aseptic prep pad allowing appropriate dwell/contact time per manufacturer IFU
- DO NOT replace with a metal tip. Draw sample directly from the port

If using disposable AWS tips (such as the Crosstex Sparkle™ AWS Tip):

- Wipe contact areas with an aseptic prep pad allowing appropriate dwell/contact time per manufacturer IFU
- Place a new disposable AWS tip on the AWS

Flush each line to be tested for 2 minutes into a sink or separate container

- If water has been stagnant in the lines, CFU count may reflect higher counts
- Compliance with ongoing flushing protocols for automated waterline treatments (e.g.: DentaPure™ Cartridges) will promote more accurate test results
- It is especially important to flush waterlines that are infrequently used, unused or extra such as low-speed handpieces, air-water syringes, and ultrasonic scaler ports. These lines create stagnant water (dead legs) and can harbor biofilm and continuously re-contaminate the water system

Note:

Always follow CDC Infection Control Guidelines for Dental Healthcare Settings; 2003

Waterline sampling technique guide available for download at Crosstex.com, or via request for hard copy through Samples@crosstex.com
3) Continue with the water sampling technique below that applies to the types of testing you are using:

**Lab**
- Organize UNOPENED vials on clean surface
- Select vial for first test line

Remove the cap from the vial. Cap and vial MUST remain in your hand
- If you are unable to maintain aseptic technique in your hand, the cap may be placed open side up on a clean surface
- Only remove cap from the vial that you are sampling. To avoid contamination, test tubes should be open for the shortest amount of time possible
- DO NOT touch the outlet of the waterline or the interior of the collection vial while collecting sample

Begin filling vials to recommended volume (avg is 2/3 to 3/4 full per sampling of testing labs)
- Best to flow/trickle water down the side of the vial rather than squirting it directly into the bottom of the vial
- Disruption of the dehydrated neutralizer (if used) by a forceful flow of water can skew the test results

Ship water samples
- Place filled and labeled vials into the shipping container provided by the testing laboratory
- Apply frozen ice pack as directed
- Complete shipping label information appropriately
- Arrange for pick-up/shipment with the recommended time limits as directed by the testing laboratory

Repeat above steps for remaining vials

**In-office (paddle-style)**
- Organize UNOPENED tests on clean surface
- Select test for first line to be tested

Separate paddle from the plastic sampler case and draw water sample into the empty case following aseptic water sampling technique. Paddle must remain in your hand – take care to touch only the paddle handle
- Only remove paddle from the test being sampled. To avoid contamination, paddle should be exposed for the shortest amount of time possible
- DO NOT touch the outlet of the waterline or the interior of the sampler case while collecting sample

Begin filling sampler case to volume recommended per the Instruction for Use
- Best to flow/trickle water down the side of the vial rather than squirting it directly into the bottom of the vial
- Disruption of the dehydrated neutralizer (if used) by a forceful flow of water can skew the test results

Firmly place the paddle back into the plastic case and place the case down horizontally (filter side down) for time specified per the Instructions for Use
- Remove the paddle from the water sample and shake the excess water from the paddle. Empty the sampler case and firmly replace paddle
- Incubate the water test sampler filter side down at room temperature 68-77°F (20-25°C) for time period specified in the Instructions for Use

Examine the filter and perform colony counts and record results
- Compare the paddle with the instruction sheet that accompanied the water test kit to determine if action is required

Repeat above steps for remaining test kits

4) Record keeping
It is recommended to keep a log that includes the following:
- Sample date
- Treatment room
- Line identification
- Clinician name
- Pass/fail
- CFU count

Consult your state dental board for the required retention of dental unit waterline testing records.

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**Note:**

In the event of a failed CFU test (e.g.: Count >500 CFU/mL), consult your waterline treatment manufacturer or Crosstex for remediation assistance.