

Top Reasons Why Dental Waterlines Fail

1. Failure to Utilize a Germicidal Waterline Treatment (or Incomplete Treatment)

Given the current design of dental waterlines (long, dark, moist and narrow), use of a germicidal waterline treatment is necessary to keep levels of microbial contamination low enough to meet the current EPA standard for potable water of <500 CFU/mL. Without such treatment, it is nearly impossible to pass a waterline test.

- Many clinicians believe that using untreated “good” water (tap, distilled, RO, sterile) for non-surgical procedures is good enough
- Some clinicians believe that building or whole office filtration systems are sufficiently treating their water. However, they may not include a method for delivering germicidal treatment
- Many offices believe that purging lines removes bacterial contamination risk
- Many dental facilities are only completing a portion of the product protocol

2. Failure to Follow Waterline Treatment Product Instructions for Use (IFU)

Ensure that you read and understand all waterline treatment product Instructions for Use. This includes:

- Instructions from the equipment manufacturer
- Instructions for Use for the dental waterline treatment products that you may be using to clean, shock and/or maintain your dental unit waterlines
- Not all products are treated the same. For example:
 - Some products on the market (waterline treatment tablets or liquids) are meant to be used daily or with every bottle fill. However, many of these products include protocols requiring testing and the use of a cleaner (often referred to as a “shock” treatment) to remediate water test failure. These products are necessary to remove the microbial contaminants that build up in waterlines.
 - Some products on the market require daily flushing
- Read the IFU of the waterline treatment product that you are using to understand frequency of use along with testing/shocking/flushing etc... requirements and at what intervals (ex. daily, weekly, monthly, yearly, etc.)

3. Failure to Collect Water Samples Per the Instructions for Use

Obtaining a waterline sample is not complicated, but it does require PRE-READING the Waterline Test Service Instructions for Use (IFU) and reaching out to the manufacturer of the test service to clarify any steps that you are unsure of PRIOR to starting the process of sample collection

- FREEZE ice packs upon kit receipt to ensure that they are completely solid prior to shipment
- Use aseptic techniques when gathering samples
 - perform proper hand hygiene, don disposable gloves, clean and disinfect any areas that you may come in contact with during the sample collection process, avoid touching the waterline outlet, do not touch the interior of the water test vials and keep test vials open for the shortest amount of time possible.
 - Review the [Aseptic Technique for Obtaining a Water Sample](#) document for additional support
- Flush ALL lines that draw water from the unit for two-minutes prior to sample collection. This includes rarely used, or never used lines; side carts, cabinets, scalers etc...
- Timing of collection is crucial
 - Once the water sample is collected, the lab needs to receive the sample within 24 hours
 - To shorten the amount of time between sample collection and lab receipt of samples, perform sample collection in the afternoon - as close as possible to shipment/pick-up time
- Do not freeze samples. If there is a wait time between sample collection and shipment/pick-up, store in the refrigerator until ready to ship
- Ship the samples the SAME DAY as sample collection. Overnight shipping labels are included with the HuFriedyGroup service and can be generated within the online portal after completing your test form.
- Only collect and ship samples Monday-Thursday to allow for shipment to the laboratory. Do not ship samples Friday-Sunday or during holidays. Reach out to the Water Test Service Support line if you have any questions on lab closures.