

# Top 10 Reasons

## Ultrasonic Scalers are a Leading Source of Contamination for Patients and Staff

### 1 Constant Use of Water Spray

They require a continuous flow of water to cool the tip and flush debris, creating an ideal environment for bacterial colonization and biofilm development inside the waterlines.

### 2 High Aerosol Production

Ultrasonic scalers produce high-velocity aerosols and splatter that can carry blood, saliva, and microorganisms from your dental unit waterlines up to 6 feet or more from the treatment site. These aerosols potentially expose both staff and patients to harmful pathogens including Legionella, Pseudomonas, and Mycobacterium.

### 3 Complex Internal Tubing

Scalers often have long, narrow, coiled tubing that's difficult to clean or flush effectively. These intricate water paths can trap water and harbor bacteria deep inside, beyond the reach of standard cleaning methods, which promote biofilm growth and make thorough disinfection difficult.

### 4 Large Surface Area for Biofilm

The water delivery components inside ultrasonic scalers have a large surface area relative to flow, giving biofilm ample space to attach and thrive—even with low-level disinfectants. Also, because of the intricate long waterlines the scalers take the longest to shock. Clinicians often don't do enough to blast out the biofilm.

### 5 Intermittent or Irregular Use

If ultrasonic scalers are not used regularly or flushed properly, stagnant water remains in the tubing, giving biofilm-forming bacteria (ex. Pseudomonas, Legionella) an opportunity to grow. Unlike handpieces or air-water syringes, ultrasonic scalers are sometimes not used continuously throughout the day.

### 6 Infrequent or Insufficient Maintenance

Many practices do not flush ultrasonic scalers properly before and after use or fail to treat their waterlines with approved chemical agents. This leads to persistent biofilm that regular flushing alone cannot remove. If scaler handpieces and waterlines are not flushed properly between patients or daily, bacteria accumulate and persist.

### 7 Inadequate Waterline Disinfection Protocols

Scalers are often left out of routine waterline disinfection cycles, especially if considered "auxiliary" rather than part of the dental unit, leading to hidden contamination.

### 8 Often Connected to Municipal Water via Separate, "Rogue" Waterlines

Even in the most state-of-the-art offices with bottled systems, scalers are on separate waterlines that are distinct from the bottle and which are connected to municipal water. These types of setups are tremendously common and often go unchecked for years.

### 9 False Confidence from Other Clean Lines

Practices often focus on testing air-water syringes or handpiece waterlines—which may pass—while neglecting to test the ultrasonic scaler line specifically. This can give a false impression that all lines are safe, while the scaler line remains heavily contaminated.

### 10 Test Timing Issues

Waterline testing done after lines have been flushed for several minutes may temporarily lower CFU counts. However, samples taken after overnight stagnation or from the first use of the day often reveal the true contamination levels—which are much higher in ultrasonic scalers.

Get infectious pathogens OUT of your scaler and waterlines, then KEEP them out.

**PureClarity™**   
Scaler Waterline Purification System from **parkell®**



See other side  
to learn more!



1.

Shock



2.

Then Protect™



## Scaler Waterlines: The Blind Spot in Your Infection Control Protocol

# PureClarity™

Scaler Waterline Purification System

**NEW!**

The New PureClarity Scaler Water Purification System<sup>1</sup> takes any source water and brings it into global compliance by exceeding even the strictest international standards of <100 CFU/ml for at least 6 months<sup>2</sup> (the current U.S. standard is <500 CFU/ml). Utilizing an innovative biopharmaceutical-grade, asymmetric, microporous membrane, PureClarity filters remove bacteria, pathogens, and contaminants through a chemical-free process.



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1. Patent pending.  
2. Depends on total dissolved solids (TDS) in source water and volume of water used.