

How to shock with diluted bleach

Is diluted bleach safe for my equipment?

Several manufacturers (including Midmark, DCI International, DentalEZ, DENTSPLY Cavitron, Pelton & Crane, and Proma) have authorized monthly, weekly, and even daily water system treatment with a solution of diluted bleach. If you want to shock with something other than diluted bleach, Crosstex Liquid Ultra™ is an effective alternative.

Step 1: What you will need.

- Regular Household Bleach (check expiration and concentration)
- Cold tap water
- Bucket or sink (never put bleach down suction lines)
- 5oz. patient cup or measuring cup
- Standard PPE (gloves, eye protection, etc.)
- Timer
- Dummy straw (if currently using a treatment straw)

Step 2: Create bleach-water solution.



- Turn off dental unit
- Detach water bottle from unit
- Pour bleach and cold water into the bottle using the patient cup (or measuring cup) to create concentration (see table below)
- Reattach water bottle to the unit and turn unit back on

For 5.25-6.25% Sodium Hypochlorite*	Mix 1 part bleach for every 9 parts water
For 7-8.25% Sodium Hypochlorite*	Mix 1 part bleach for every 13 parts water

*Sodium Hypochlorite is the active ingredient in bleach and is listed on the container.



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Step 3: Run bleach/water solution through each waterline.

Prior to shocking - remove all parts that can be heat sterilized (i.e. handpieces, couplers, scaler tip, air-water syringe tip, etc.). Run the diluted bleach solution through each waterline. Do not flush any of the bleach solution into the suction/evacuation line, use the bucket or sink to collect solution. The goal is for the bleach/water solution to be sitting in each waterline before moving to step 4.

Note: Do not flush bleach down suction lines



Air-water syringe

- Run each A/W syringe line for 20-30 seconds.



High & low speed lines - remove any autoclavable part

- Run each handpiece line for 20-30 seconds.
- Shock all handpiece lines that use water.



Ultrasonic scaler - remove any autoclavable part

- Run ultrasonic scaler line for 60-90 seconds.

Pro tip: If you are having a hard time recognizing if bleach is within the line, use a bright colored post it note (fluorescent pink, purple, or orange) and lightly spray it with the waterline. When the coloring fades from the post it note then you know the diluted bleach has made it to the end of the line. You can also use this to ensure the bleach is out of the waterlines.

Step 4: Let solution sit and then flush water through waterlines.



- Set timer for 10-15 minutes and leave bleach/water solution in each waterline.
- After 10-15 minutes, turn unit off/turn pressure off, disconnect water bottle and dump remaining solution into a bucket or sink.
- Refill water bottle with warm water, reconnect, and turn unit on. Flush water through lines for 2 minutes to help break up and remove biofilm.
- Lastly, refill water bottle with cold water and flush through lines for 1 minute to cool lines.

