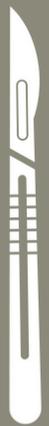
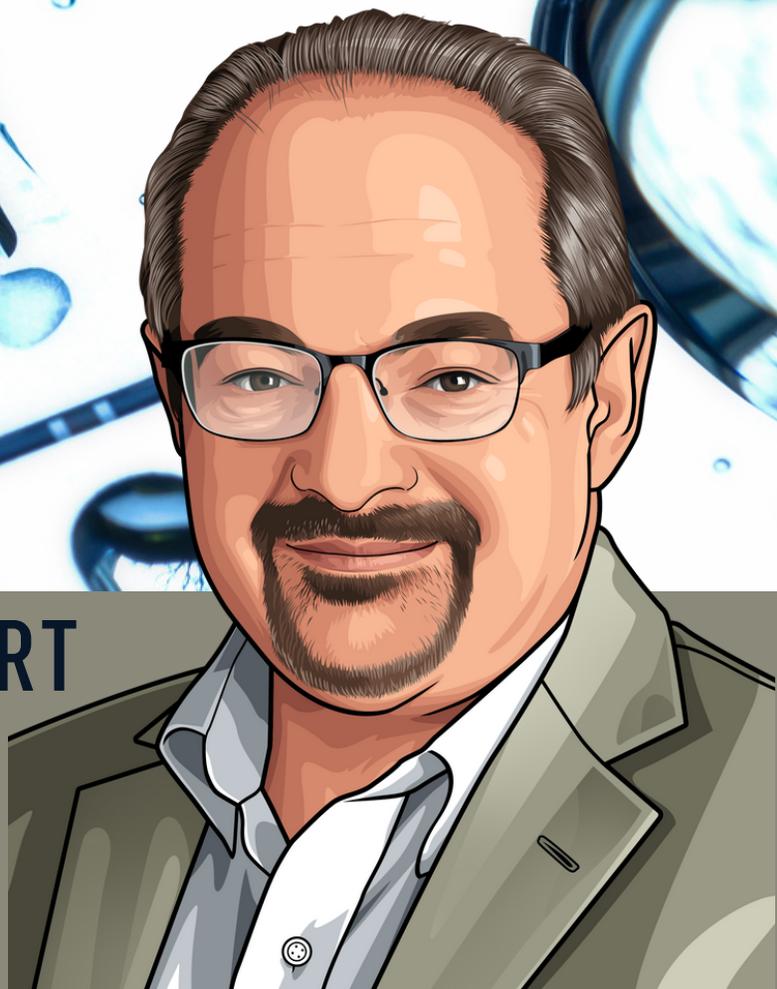


WATER HARDNESS

HOW DOES IT AFFECT PROCESSING?

WATER QUALITY EXPERT

 **BEYOND**
CLEAN



Jonathan Wilder, Ph.D. | Managing Director
Quality Processing Resource Group, LLC

Beyond Clean Water Quality Expert:

WATER HARDNESS: HOW DOES IT AFFECT PROCESSING?

Jonathan Wilder, Ph.D. | Quality Processing Resource Group, LLC

Water hardness is a measurement of how much calcium carbonate is in the water. Calcium carbonate is also known as lime, and it is best known for leaving white deposits on everything it touches. Because when the water evaporates, you have a limestone formation left behind.

Hard water can also interfere with detergent cleaning action, since the detergent has to solubilize the dissolved calcium carbonate first before it can get to work on instrument soil. And, as anyone who has taken a shower in hard water can tell you, it doesn't rinse off very easily. So using hard water as a rinse in a cleaning process isn't doing much of a rinse at all.

So what can you do to deal with this situation?

Water softening is a tried and true approach to decreasing hardness. It isn't free, and it adds another thing to maintain (the softener) but you need less detergent and instrument repair costs should drop as well. AAMI TIR 34, Water for the reprocessing of medical devices suggests an upper limit of 150 mg/l (parts per million) for hardness. This level is easy to test for using test strips.

Softened water, unlike RODI or other purer water, does not require the use of special piping unless the pH is low. Very soft water plus acid pH results in copper being dissolved from the pipes and deposited on anything the water touches after that.

Water softening is a fairly inexpensive solution that can pay huge dividends. See you next month!

Have more water quality questions? Contact Jonathan at: jwilder@qprgllc.com

Beyond Clean Water Quality Expert Biography:

JONATHAN WILDER, PH.D.

MANAGING DIRECTOR
QUALITY PROCESSING RESOURCE GROUP, LLC



Dr. Wilder joined MDT Corporation in 1990 as Staff R&D Scientist, tasked with executing process and product development in sterilization, disinfection and cleaning of reusable medical devices. He started H & W Technology in 1997 and allied with SMP Laboratories from Tübingen, Germany to form Quality Processing Resource Group (QPRG) in 2016. QPRG provides clients with operational, regulatory, and technical consulting in the area of sterile processing. Its services include accreditation readiness audits, technical deep dives into the issues causing wet loads and staining, and 510(k) filing support for manufacturers. He has a Ph.D. in physical chemistry from NYU and an MBA from Rochester Institute of Technology. He is a New Yorker by birth but escaped in 1986 to a postdoctoral fellowship at the Max Planck Institute for Surface Physics, the Fritz Haber Institute, in West Berlin, Germany. He is currently happily living near his children in Philadelphia, PA.

 **BEYOND** **CLEAN** 