



Flossing with Water

An interview with Carol Jahn, RDH, MS

by Trisha E. O'Hehir, RDH, BS, MS, Editorial Director, Hygienetown

If you aren't recommending oral irrigation to your patients as an alternative to dental floss, it's time to start. Seventy percent of the population currently does not use floss, and from my experience, many of those who claim they floss, aren't very effective with it. On the opposite side of the oral-hygiene spectrum, you've probably treated a patient who uses a Waterpik and has excellent oral hygiene. Contrary to the attitude taken by the profession in the past, patients who use the Waterpik oral irrigator find it very effective and continue to use it, despite our lectures on the need for flossing. Surprisingly, these patients always present with better-than-average oral health. Based on several years of research, it's clear that water is the perfect antimicrobial to

disrupt bacterial biofilm and flush toxins out of subgingival and interproximal areas. Flossing with water instead of string floss is easier for patients and as effective as string floss. Since compliance is better, it's actually better than string floss. For patients who cannot or will not use dental floss, the Waterpik Water Flosser provides an easy to use, effective alternative.

To get this message out to clinicians and consumers, Water Pik, Inc., changed the name of its oral irrigator to the Waterpik Water Flosser. The feedback is positive and clinicians and consumers both agree, the new name makes perfect sense. I recently had the opportunity to talk about the Waterpik with Carol Jahn, senior professional relations manager for Water Pik, Inc.

When was the first oral irrigator introduced to the market?

Jahn: It was in 1962 in Fort Collins, Colorado, that dentist Dr. Gerald Moyer and engineer, John Mattingly, introduced the first oral irrigator, and began the evolution to today's Waterpik Water Flosser.

What other names have been used over the years?

Jahn: It has had several names, including "Octopus" – one of the first names. It was also called dental water jet, oral irrigator, water irrigator, or simply "Waterpik." The new name, Waterpik Water Flosser is the name that best reflects the benefits of this technology for reaching interproximal areas.

Was this a quick change?

Jahn: Decisions like this are not made quickly. The decision to change the name was made after careful study and market testing that took more than a year to complete. A product name is important, and what it communicates to consumers makes a difference. We wanted to be sure the message this new name sends is the message we want. We found through focus group interviews, that the term "irrigation" didn't communicate what we in dentistry understand, instead, consumers thought it had something to do with farming. There was a disconnect with consumers about irrigation.

I can definitely understand that, living in Phoenix, Arizona, with irrigation canals running right through town. It's interesting to put yourself in the consumer's position to see what these words mean to them.

Jahn: We as professionals give our patients information, but they don't always understand, and they are often reluctant to ask questions. In our focus groups, we found that consumers had been told about the Waterpik device by their dental professionals, but they didn't really know what it was. They wondered if it

replaced brushing. We often assume too much about what the patients understand.

I've long been a supporter of using water rather than string to clean between the teeth. It's so easy to use and the research is accumulating in support of the Waterpik Water Flosser. How many studies have been published to date on the Waterpik Water Flosser?

Jahn: The research has been accumulating for the past five decades. More than 50 research studies have been published and recently three have compared the Waterpik Water Flosser to string floss, all showing that Water Flosser is an easier, convenient and more effective alternative to dental floss. Trisha, your readers can visit www.waterpik.com to check out all the published studies.

In a nutshell, what does the research show?

Jahn: The research shows that the Waterpik Water Flosser is safe for subgingival tissues, effective in reducing bleeding, probing depths, gingivitis and subgingival cytokines. Three recent studies have shown it is a perfect alternative to dental floss and other interdental aids because it directs a pulsating stream of water into the subgingival area as well as the interproximal space and this disrupts the biofilm. It's very difficult to reach these areas effectively with dental floss, wooden sticks or dental picks.

I've reviewed more than two dozen published studies for *Perio Reports* and three studies always come to mind for me; two published in 1990 and one in 2000. The first, authored by Dr. T. Flemmig, comparing rinsing with chlorhexidine to irrigation with water. Irrigation was more effective because it reached the subgingival and interproximal areas better. Another study authored by Dr. David Jolkovsky compared irrigating with chlorhexidine versus tap water. Three test groups were compared plus a control group that received no irrigation. All the test groups received professional irrigation followed by daily home irrigation. One group used chlorhexidine for both professional and home irrigation. The second group received professional irrigation with chlorhexidine and used tap water for home irrigation. The third group received professional irrigation with sterile water followed by home irrigation with tap water. Results showed positive results for all three irrigation groups compared to the control group. The interesting finding was no significant



Waterpik 450 tips

Plaque Seeker tip

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differences between the three irrigation groups, demonstrating how effective tap water was in the Waterpik Water Flosser.

Jahn: There are several similar studies comparing different solutions in the Waterpik Water Flosser compared to water. For many years, clinicians believed that antimicrobials and antibiotics were more effective than water. This coincided with the introduction of local drug delivery systems to be used with scaling and root planing. Today, it's clear that the combination of pulsation and pressure works to disrupt and remove subgingival and interproximal bacterial biofilm. This makes water a perfect agent of choice.

Another study that really caught my attention was authored by Dr. C. Culter and focused on interproximal areas measuring 5mm to 7mm. In just two weeks, adding the daily use of the Waterpik Water Flosser significantly reduced plaque, gingivitis, bleeding, probing depths and also reduced proinflammatory cytokines. It's clear the water irrigation disrupts subgingival bacterial biofilm and reverses the inflammatory process in the tissues. These results are profound and seen very quickly. What recent studies have been done focusing on bacterial biofilm?

Jahn: A laboratory study done by Dr. Bill Costerton, the godfather of biofilm research, shows how the Waterpik Water Flosser using either the Classic Tip or the Orthodontic Tip removed 99.9 percent of biofilm from treated areas. This was accomplished in just a three-second application of the Waterpik Water Flosser. Results of this study are captured in a video, and a copy is posted in the Media Center on both Hygienetown.com and Dentaltown.com.

I'm intrigued each time I watch that video, as are my audiences when I share it with them in CE courses. Tell me about the most recent research comparing the Waterpik Water Flosser to dental floss.

Jahn: This study was completed by Rosema, et. al., at the University of Amsterdam, showing after two weeks, twice the reduction in bleeding in the Waterpik Water Flosser group compared to the dental floss group, 26 percent vs. 13 percent. At 30 days, the reduction in the Waterpik Water Flosser group was even more impressive.

How many tips are currently available for the Waterpik Water Flosser?

Jahn: We currently have six tips available. The Classic Jet

Tip is the one hygienists are most familiar with, followed by the Pik Pocket Tip, that is similar to a rubber tip and enhances water flow and cleaning into furcations and hard to access areas.

Our newest tip is the Plaque Seeker Tip, with three thin tufts of bristles around the jet tip. It was designed to help remove more plaque around implants, veneers, crowns and bridges. It's also a good tip to introduce water flossing to patients. Because of the bristles, it has a familiar feel and makes water flossing easy and helps remove stubborn plaque biofilm from hard to reach areas.

There is an Orthodontic Tip that features a tapered brush tip and is designed to make removing plaque around brackets and wires easier than with dental floss. Two other tips are also available, a Toothbrush Tip, combining brushing and water flossing and a Tongue Cleaner Tip that combines tongue scraping with water action.

Carol, I know you worked for several years in clinical practice before joining the Water Pik team and that you've been with Water Pik for several years. What keeps you with this company?

Jahn: It's important to me to work with a company that is highly ethical and committed to producing quality products, supported by scientific research that make a difference in people's health.

Any advice for our readers?

Jahn: My advice to clinicians is very practical. Try the Waterpik Water Flosser yourself and see the results and then have a patient try it. You will be happy with the results and so will your patients. Flossing with water is an easy way to achieve interdental health and the best oral health possible. ■

Interviewee Bio

Carol Jahn, RDH, MS, has a BS in dental hygiene from the University of Iowa and an MS in Continuing Education and Training Management from the University of St. Francis. She has been a dental hygienist for 28 years with 14 years as a clinician.



As the Senior Professional Relations Manager for Water Pik, Inc., Jahn designs multimedia educational programs for dental professionals. She is a nationally recognized speaker having provided more than 200 continuing education courses. Additionally, she has published more than 50 papers, contributed to six textbooks, and serves on the advisory board for two dental hygiene journals.

Jahn has been a lifelong active member of the ADHA; she is a past president of the West Suburban Dental Hygienists' Society and the Illinois Dental Hygienists' Association and past treasurer of the ADHA. She is one of two ADHA delegates to the International Federation of Dental Hygiene meeting in June 2010 in Scotland.