

Water

Recent Media Coverage

Over the past few years there have been some television programs that have sensationalized the issue of Dental water quality. Our profession has the best record of adopting the best Infection Control practices. This issue is no exception. Each professional practice is unique. There are no text-book solutions to the variables of equipment types, staff training and physical layouts. Our approach takes into account these differences and we have developed practical solutions to these concerns about water quality to ensure your protection. Our clinic would like to assure you that we have been pro-active in addressing this topical health issue. The **inside** of this brochure is designed to help you understand some of the water quality issues that affect us all at home and at work.

Our Program

Our office uses Micrylium's "Lines™" every week to maintain free flowing tubing to deliver water of a quality 2.5 times better than the FDA standard. Our office periodically reviews the system and takes care to ensure the quality of the water entering the dental unit is of premier quality.

Testing

All equipment that has an impact on your health is sterilized or disinfected in our office. Our program includes testing of our sterilizers, our water tubing, our ultrasonic cleaning baths, X-ray and other important equipment.

Our Commitment

Our staff is conscientious about staying up to date with Education and Technology Issues relating to Dentistry and Health. We do this by regular Continuing Education for our staff.

We are proud of our office
Dental Health Care
Professionals

We have combined our
extensive clinical experience
with the support of scientists
and state-of-the-art
testing facilities at
Micrylium Laboratories to
deliver the best quality water
for your treatment.

Micrylium

www.micrylium.com

Straight Talk...



**Concerns about
Water Quality
Just the facts about
Dental water,
with practical advice
for your personal
water use.**

Water and our Personal Life

At home there can be concerns about water quality. The key to understanding where problems may exist or develop in the future is to understand three basic principles. They are:

- 1: That Bacteria multiply rapidly and exponentially.
- 2: Temperature hastens their development and reproduction.
- 3: The materials in contact with the water-borne bacteria, such as plastics, can augment the problem of biofilm formation.

Recently a number of homes have had water filtration systems installed. Initially these have been excellent at reducing contaminant and bacteria levels. Unfortunately, after a few weeks, the filters may fill up and depending on the temperature and materials be overgrown rapidly with bacterial biofilms. All filters should be cleaned, back-washed or replaced on a monthly basis to ensure that this build-up does not occur.



Since drinking water has become a serious concern in recent years, home filtration canisters have become popular. These do reduce bacteria and contaminants, however, they will fail if left out of the refrigerator for extended periods.

Rule of thumb

As a rule of thumb, whenever the convenience increases, the chance for bacterial growth also increases. An example of this is the refrigerator that dispenses water and ice.



Often the tubing that supplies it is plastic (bacteria are attracted to its hydrophobic surface). In addition, the back of the refrigerator is warm. The solution is to minimize the length of tubing, use copper and increase the flow rate by using this convenience often.

Exponential Population Growth of Bacteria

Bacteria can, on average, double their population every **20 minutes** in a warm environment. (In a refrigerator at 3-5°C growth is arrested)

Testing

There are many ways to test water, but the basic principles are to sample with a sterile container and ensure a cool journey to the laboratory. In addition to laboratory, paddle-type tests are available for private testing.



Concerns are everywhere

Many people have recreational situations that could pose concern over water quality. A Summer House, a Camper Van or a Houseboat are all used infrequently and may have stagnant water lines. It is important to clean these lines and to leave an antimicrobial



fluid as a water replacement during the dormant periods. It is evident that there are many situations where water in tubings or chambers may become stagnant. Grocery stores often have an automatic tubing system for freshening vegetables.



Although suspect at first, these systems, when operated seven days a week have conformed with general water quality standards.

Take a moment to think about what you can do for water quality and safety at home and at work.

