‘Romancing the spore’

Spores are romanced through each step of the sterilization process

By Patricia M. Pine, RDH

“Romancing the spore”  and “Romancing the Stone” are great old romantic movies. However, the way we were in sterilization should be just a memory in dentistry. Antiquated methods like cold sterilization no longer serve us.

The dental community continues to change and has gone full-throttle with new products for both clinician and patient comfort. Sterilization techniques have kept pace with science and given professionals new ways to “romance the spore.”

One of the most important safety techniques a dental office can provide for its patients is proper sterilization. Until there is a fear-ridden news story, patients don’t often think about sterilization because it is a behind-the-scenes technology.

Public fears began in the ‘80s with the AIDS scare in fear that HIV could be contracted in dental offices. Back then and now, the risk for transmission of HIV is small.

What the public and many professionals don’t consider are the newer more virulent risks like MRSA, C-def, and H1N1 as well as the old stand-bys such as TB (See Table 1: Glossary of ‘bugs’).

As oral health-care professionals, we cannot take the sterilization process for granted.

Table 1: Glossary of ‘bugs’

<table>
<thead>
<tr>
<th>MRSA</th>
<th>methicillin-resistant Staphylococcus aureus</th>
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<tr>
<td>C-Def</td>
<td>Clostridium difficile infection</td>
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<tr>
<td>H1N1</td>
<td>Swine flu</td>
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<td>TB</td>
<td>Tuberculosis</td>
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The goal in any sterilization department is to disassemble spores.

One of the most important safety techniques is to disassemble spores. After bathing, rinsing causes proteins to prevent harm. We need to romance the spores.

How to romance the spores

Warm baths, massages, thick spa towels and a bow around the package set the mood for romancing the spores. Spores are romanced through each sterilization step.

Spore-contaminated instruments are placed in the hot tub (the enzymatic bath) for a 20-minute, massage-removing bio-burden. After bathing, rinsing causes contaminated debris to sluice down the instruments.

This is followed by a natural drip-dry period on towels. This allows for visual inspection and prepares the instruments for entering the sauna.

Wrapping up for saunas is routine. Using paper pouches with inner and outer indicators is one option.

Tips to prevent tooth grinding

By Keri Kramer, Chicago Dental Society

How are Americans dealing with these difficult economic times? They’re taking the stress out on their teeth, if you ask dentists. In the fall of 2009, the Chicago Dental Society surveyed more than 250 of its members to see if stressing about the economy was wreaking havoc on patients’ oral health.

Nearly 75 percent of dentists surveyed said their patients reported increased stress in their lives. In addition, 65 percent of dentists said they have seen an increase in jaw clenching and teeth grinding amongst their patients.

Jaw clenching and teeth grinding, or bruxism, can be a temporary nuisance during stressful times that causes headaches and sleep problems, but it can also cause lasting problems for your teeth and gums.

It can lead to muscle inflammation, broken teeth or even damaged dental work, such as crowns and fillings.

Dentists are sharing the following tips with their patients to help them cope with the pressures of the world — before their teeth pay the price:

Take a pain reliever. If grinding and clenching is causing you headaches and muscle soreness in your jaw, take an anti-inflammatory medication, such as Advil or Aleve, shortly before bedtime.

Massage. Try massaging the muscles along your jaw line, from the joint near your ear all the way to your chin to relieve jaw soreness.

Avoid caffeine. Coffee may help you get going in the morning, but caffeine combined with stress can lead to increased muscle tension.

Increase your consumption of water. If cutting caffeine completely from your life won’t work for you, the least you can do is try to avoid it within several hours of bedtime.

Be careful with your diet. When the jaw muscles get inflamed, it’s best to go easy on them for a while by avoiding foods that require vigorous chewing. Ice and gum chewing are a definite no-no. And don’t even think about that triple-decker cheeseburger that almost requires you unshingle your jaw to eat it.

Exercise. You didn’t want to hear this one did you? However, exercise relieves stress and reduces anxiety, the two biggest culprits of grinding.

Meditate. Try a yoga class to achieve some relaxation. Even taking a moment before bedtime to do some deep breathing can be a big help.

Wear a mouth guard. If you have serious grinding and clenching issues, talk to your dentist about a mouth guard to wear at night.

About the CDS

The Chicago Dental Society recently held its 145th annual Midwinter Meeting, which brought more than 50,000 dental professionals to Chicago in February. The meeting is a forum for dentists to learn about new products, technologies and methods.
Dear Reader,

The dentist I have worked with over the last 12 years has often told me his mother, Mrs. Dubats, always said to her children, “Do what you do best.”

At work, this comment most often comes after one of us has complained about something or played a practical joke. It has become a sarcastic comment in our office and one that we all understand.

While we have fun with this, I am not sure is the way Mrs. Dubats intended it to be used. You see, there is a deeper meaning to what she was trying to convey.

We should live by this saying. This is especially true in the hygiene department.

Mrs. Dubats taught her team members to “Do what you do best.” This is something Mrs. Dubats always said to her children, “Do what you do best” in your mind for the next month.

I excel in treating periodontal patients, so I spend most my time doing that. My colleague is amazing with children, so she sees the majority of our little patients.

We don’t focus on what we may not be so good at, but instead we look at what we do well and keep our interests. Mrs. Dubats has taught us that diversity on a team will allow us to do what we do best. Work as a team that is based upon strengths.

Keep the thought, “do what you do best” in your mind for the next month.

Do what you do best and encourage others to do what they do best.

A second spore test should then be performed. If the test is again positive, previously sterilized instrument packs must be removed from service. An immediate call for service on the unit is necessary and asking for a replacement sterilizer. Upon arrival of the temporary sterilizer, spore testing should be performed.

After repair of the original practice unit, there needs to be negative spore test in three consecutive empty chamber sterilization cycles.

Only then can the sterilizer be put back into service.

What does OSHA have to do with it?

The federal government requires OSHA training on an annual basis for all employees. Use the lists and photos to assist in review of sterilization procedures as part of each new employee’s OSHA training as well as part of every employee’s annual training.

My answer to these complaints is, “Wow. You are so lucky to have that situation!” They don’t expect this response.

Having diversity on a team allows team members to focus on areas where they excel. For instance, take my office. I excel in treating periodontal patients, so I spend most my time doing that. My colleague is amazing with children, so she sees the majority of our little patients.

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I believe it can change your life.

Best Regards,

Angie Stone, RDH, BS

Reasons for sterilization failures

• Improper packing: Prevents penetration of sterilizing agent.

• Improper loading: Overloading or packages too close together.

• Improper Timing: Not enough time at proper temperature to achieve microbial kill; or a timer malfunction.

• Improper temperature: Not enough heat for proper time interval to achieve microbial kill.

• Improper method of sterilization: Heat-sensitive items melt or distort.

Another option is to “go naked” by using cassettes still wrapped and tied with a bow (indicator tape).

Cassettes keep instrument sets orderly, saving time and prevent accidental exposure. Both of these procedures must allow the saunas (steam) to breathe through while denuding the protein that causes diseases.

The romance is doomed to fail - the packets are stuffed together with no room to truly experience the warmth of the sauna. It becomes a competition with some packets selfishly grabbing all the heat and others enviously going without. The most important step: proper loading of the sterilizer.

The finale of this romance ends with the instruments free of disease-producing protein, completely dry and ready to caress the next patient safely. This sounds like a spa treatment or a made-for-TV movie, yet the consequence of messing up this romance is more than loss of a relationship; it could be loss of life.

Was it a successful romance?

The next question to answer is if the romance was successful.

Are your instruments truly sterile? Authorities recognize bacterial spores, i.e., Bacillus spores, as the most resistant type of microbes, making spore testing the closest-to-ideal measure of eradication.

Routine weekly spore testing and biological monitoring of equipment for patient safety is not an option. It is a must.

The spore-test used depends on the type of sterilizer. Steam sterilizers should be tested for Geobacillus stearothermophilus. For dry heat sterilization, the test should be for Bacillus atrophaeus.

In case of a positive spore test, the sterilizer must be removed from service to review the operating procedures. If the problems are procedural, these can be corrected immediately.

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Tell us what you think!

Do you have general comments or criticism you would like to share? Is there a particular topic you would like to see articles about in Hygiene Tribune? Let us know by e-mailing feedback@dental-tribune.com. We look forward to hearing from you!

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When was your last infection control training? Is everyone on the same page? Is it time to bring in a professional trainer?

True romance
Actually, the true romance isn’t really between the practice and the spore. The true romance is between the practice and the patients of record and the new patients they refer.

Eradicate patients’ spoken or unspoken fears by inviting questions about the behind-the-scenes sterilization process used in your practice by offering tours of your office.

Don’t assume patients of record already know how you effect proper sterilization. Creating trust and comfort by providing the best care on every level will result in referrals from content patients.

References

(Photos/Provided by Patricia M. Pine, RDH)

Methods of sterilization*
• Remove bio-burden from instruments prior to packaging via ultrasonic device.
• Use sterilization pouches with both inner and external monitoring devices.
• Cassettes reduce possible exposures, increase organization of instruments and eliminate the need to handle highly contaminated instruments.
• Load pouches or cassettes into the sterilizer, leaving room for steam to circulate between each bag (see photo).
• Place pouches on separate trays. They must not touch sides, bottom, top or inside of the sterilization chamber.
• Place cassettes horizontal on each tray, or vertical on a special rack, with space for steam circulation.
• Monitor sterilizers with biological test strips and control indicators at least weekly.
• Maintain sterilization records in compliance with state and local regulations.

*Adapted from OSAP manual “From Policy to Practice 2004”

About the author
Patricia M. Pine, RDH, has more than 30 years of experience. She is currently practicing as a periodontal therapist in Scottsdale, Ariz., utilizing her laser skills. Pine promotes risk management presentations that combine organizing the hygienists’ day while incorporating new technology and minimally invasive dentistry that is evidence-and scientific-research based.

Pine is founder of “U”nique Dental Organizational Services. She provides practices with safety exercises that keep teams up to date and safe in all aspects of infection control including OSHA guidelines. She encourages risk management in all venues of dentistry.

Time management, oral cancer, office policies and procedures, including recordkeeping are a few of her speaking topics.

Her career has been multifaceted and includes clinical dental hygiene, dental hygiene education, and speaking nationally and internationally. She has also contributed to several dental hygiene magazines. You may visit Pine’s Web site at www.uniquedentalservices.com. There you can take a short quiz that will test you on infection control updates by clicking on the in-office tab at the top.