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Discussion from Hygienetown.com

Running Behind

Advanced Attachment Loss Due to Aggressive Oral Hygiene
Making the Connection

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

The mouth is the doorway to the body and research is accumulating that links oral bacteria to infections, diseases and conditions in many parts of the body. Cause and effect has yet to be proven, but the bacteria do travel to other parts directly from the mouth. Oral bacteria can be aspirated into the lungs, enter the Eustachian tubes and move to the middle ear, or enter the blood stream and travel to distant parts of the body.

According to the American Rhinologic Society, each year Americans suffer more than one billion upper respiratory infections (URI or the “common cold”). URIs have increased six percent per year since 1970, due in part to increased use of daycare centers and over-the-counter use of antihistamines and decongestants. Children in daycare experience an average of six URIs per year. The upper respiratory tract begins with the nose, includes the sinuses, pharynx and larynx. It leads to the lower respiratory track made up of the trachea, bronchi and pulmonary alveolar spaces. We don’t usually think of the nose and sinuses as part of the oral environment we deal with, but bacteria and viruses found in oral biofilms do contribute to URIs and otitis media infections.

Within the oral pharynx, the Eustachian tubes connect the oral cavity with the ears. These tiny tubes provide a passageway connecting the upper part of the throat to the middle ear. To picture where the Eustachian tubes are located, imagine pointing your finger all the way to the back of the throat, and then turning it slightly to the side and going a bit higher. You can’t see it, but that’s the location of Eustachian tubes, one on each side of the nasopharynx, near the adenoids. The Eustachian tubes supply fresh air to the middle ear, drain fluids and maintain air pressure between the nose and the ear. They are generally closed, and open for a fraction of a second to equalize the pressure between the middle ear and the atmosphere.

Bacterial biofilm accumulating in the Eustachian tubes can trigger inflammation, swelling and blocking the drainage from the middle ear, causing an ear infection or otitis media. In infants and children, the high incidence of otitis media is due in part to small, narrow Eustachian tubes positioned horizontally, making it difficult for fluid to drain out of the ear. With age and skull growth, the Eustachian tubes will move up and slant downward.

Controlling the accumulation of oral biofilm and keeping the Streptococcus bacteria in check is important for more than just dental health. It will also help control URI and the incidence of otitis media infections, especially in young infants and children. Educating parents about the importance of good oral health should also include education about good upper respiratory health.

Physicians have learned the value of xylitol in controlling bacterial biofilm formation. Oral xylitol in the form of gels, syrups, wipes, gums and candies reduces bacterial counts. This also leads to prevention of otitis media infections. In addition to oral use of xylitol, it is also offered in a mild saline nasal spray to control bacteria and virus attachment to nasal and sinus tissues. Just as bacteria slide off the teeth with oral xylitol use, bacteria are unable to attach to soft tissues when xylitol is delivered to the nose in spray form. With this information we can broaden the scope of oral hygiene education to include prevention of URI and otitis media infections. The mouth, nose, sinuses and ears are definitely connected.
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Non-invasive Periodontal Diagnosis

Periodontitis is primarily diagnosed with radiographs and clinical examinations using periodontal probes to measure probing depths, attachment levels and bleeding. Going to the next level, genetic and laboratory tests measure oral microbiology, one aspect or bacteria at a time. The future will bring non-invasive modes of diagnosis.

Non-invasive diagnostic methods do not use ionizing radiation, are not uncomfortable for the patient and do not manipulate the tissue. Non-invasive diagnostics will provide information about current disease and also predict disease progression. Three approaches being investigated are: infrared spectroscopy, optical coherence tomography and ultrasound imaging.

Infrared spectroscopy distinguishes between healthy and diseased tissue by detecting through the tissue chemical bonds and molecular and sub-molecular profiles. Covalent bonds vibrate and absorb energy from the infrared light. This information creates a unique molecular fingerprint of the tissue. If the disease progresses or treatment is provided, the fingerprint will change. Infrared spectroscopy analyzes complex biologic systems, rather than single biomarkers. Infrared spectroscopy can also analyze gingival crevicular fluid, detecting an entire spectrum of biomarkers related to various stages of health and disease.

Optical coherence tomography creates a high-resolution cross-sectional image of periodontal soft tissues and bone using low-level laser light. These three-dimensional images capture micro-structural details of the periodontium without having to touch the tissue.

Another imaging modality widely studied in dentistry is ultrasound, producing ecographs of bone and tissue without radiation to the tissues.

Clinical Implications: One day periodontal disease will be diagnosed with non-invasive modalities, providing more information in less time and without discomfort to the patient.


Hospitalization Bad for Oral Health

For hospitalized patients, oral health and oral hygiene are not usually top priorities. Consequently, poor oral health and hygiene impact quality of life, nutrition and general health. Poor oral health and hygiene are associated with hospital-acquired infections, specifically respiratory diseases with intubated patients.

Researchers at the Eastman Dental Institute in London, U.K. reviewed the research to determine oral health changes during hospitalization. More than 9,000 potential records were found in a literature search and of these 37 full articles were evaluated and five papers fit the study design criteria for the systematic review.

Four of the studies included patients in intensive care (ICU) and the other study included both ICU and cardiac surgery patients. Two studies were from the U.S. and one each from the U.K., France and Holland. Patients in three studies were intubated. Oral hygiene for study patients varied considerably from wiping the mouth with a sterile cloth or using a sponge swab to using toothbrushes with toothpaste. Frequency also varied from twice to six times daily.

Plaque levels were monitored and showed significant increases during the hospital stay in four of the five studies. One study reported baseline plaque scores of 23 percent and 93 percent after 10 days hospitalized. Gingival inflammation was also reported to increase during hospitalization. Intubated patients experienced increased mucositis compared to non-intubated patients.

Clinical Implications: Hospitalization is associated with an increase in plaque and deterioration in oral health. Encourage patients who are hospitalized to maintain oral health or seek the help of dental professionals to ensure good oral health and hygiene during hospitalization.

Disease and Risk Scores Predict Tooth Loss

One goal of periodontal therapy is to stop bone loss and prevent tooth loss. Calculating a mean tooth loss rate among those with periodontitis is difficult due to variation in disease severity among people. Those with the most severe disease experience the most lost teeth. Those diagnosed with early periodontitis who receive treatment are less likely to lose teeth.

Researchers associated with the PreViser diagnostic and risk assessment system and periodontists in clinical practice evaluated patients who had periodontal treatment to determine tooth loss levels, associated disease severity and risk level at the beginning of treatment.

Nine periodontists using the PreViser system entered data on a total of 776 patients who received treatment between 1971 and 2003. The average treatment time was 13 years, ranging from three to 33 years with a total of 980 teeth lost. The PreViser system provides a disease score from one to 100.

For this study, the disease scores were grouped into nine categories: health (1), mild periodontitis (2, 3), moderate periodontitis (4, 5) and severe periodontitis (6, 7, 8, 9). The majority of subjects, 98.5 percent, were in categories 4 to 9.

No teeth were lost by 61 percent of the group. No one with a disease score of 1 or 2 lost any teeth. Seven percent lost four to six teeth (advanced periodontitis group) and two percent lost 10 teeth or more and they were in disease score categories 8 and 9. The higher the disease score and the risk score, the greater the tooth loss risk.

Clinical Implications: Diagnosing and treating periodontitis early provides the best chance of preventing future tooth loss.


Local Delivery of Statin Drug for Bone Regeneration

The local delivery of drugs sub-gingivally is used to improve periodontal healing after instrumentation. Several drugs are now available for local delivery: tetracycline, minocycline, doxycycline, metronidazole and chlorhexidine. Delivery systems now include gels, cellulose fibers, ointments, chips and microspheres.

Researchers at the Governmental Dental College and Research Institute in Kamataka, India evaluated a new local delivery system using a methylcellulose gel of the statin drug simvastatin. This six-month study evaluated clinical and radiographic outcomes after scaling and root planing (SRP) plus the new local delivery drug or a placebo.

A total of 60 patients with chronic periodontitis participated, 30 in the test group and 30 in the placebo group, each with one test or control site. After SRP, the 1.2 percent simvastatin gel (SMV) or the placebo was injected into the pocket areas using a blunt cannula. No periodontal dressing was used and patients were instructed to refrain from interdental cleaning for one week.

Data collection included clinical indices, radiographs and gingival crevicular fluid (GCF). Plaque reductions were similar for both test and control groups. Significant healing was evident in both groups, but the test group showed more significant probing depth reductions, attachment level gains and gingival index reductions than the placebo group. The test group showed significant bone regeneration interdentally compared to the control group. Evidence of the SMV drug in GCF was measured at all test points, up to and including day 30.

Clinical Implications: Drugs other than antimicrobials and antibiotics might soon be available in local delivery systems to not only enhance healing but also to stimulate bone regeneration.

NovaMin Compared to Potassium Nitrate

NovaMin is an amorphous sodium calcium phosphosilicate that was first developed as a bone regenerative material for long bone fractures. In smaller particle size, it is now available in dental products to occlude open dentinal tubules associated with root surface sensitivity.

Researchers at the SDM College of Dental Sciences in Dharwad, India compared a toothpaste containing five percent NovaMin, a toothpaste containing five percent potassium nitrate and a control toothpaste with fluoride. Thirty patients with sensitivity volunteered for the study. All received a prophylaxis and two weeks later, the study began. Baseline sensitivity was measured using three tests: tactile with a dental explorer, air using the air syringe and cold water by placing melted ice water on the surface.

Subjects were randomly assigned to one of the three toothpastes and told to brush twice daily as usual and to refrain from eating or drinking for 30 minutes after brushing. Patients were seen at two and four weeks to measure sensitivity. Both the NovaMin and the potassium nitrate toothpastes reduced sensitivity compared to the control toothpaste. NovaMin was more effective than the potassium nitrate in reducing the subjects’ reported pain on the three sensitivity tests.

Dentin discs were also tested in the lab by brushing with the three toothpastes and evaluated for tubule closer after two, 10, 30 and 120 minutes. NovaMin was the only toothpaste that blocked the open tubules. Potassium nitrate works by blocking nerve transmission, not by blocking tubules, explaining why the tubules were still open.

Clinical Implications: New toothpastes containing NovaMin provide an alternative choice for patients seeking relief from dentinal hypersensitivity.


NovaMin Compared to Potassium Nitrate and Stannous Fluoride

Hypersensitivity affects as much as 57 percent of the general population. Desensitizing toothpastes work in one of two ways, either occluding open dentinal tubules or depolarizing nerve conduction. Fluoride occludes open tubules and potassium nitrate depolarizes the nerve. NovaMin, a new ingredient for the treatment of dentin hypersensitivity, occludes open dentinal tubules.

Researchers at the Armed Forces Medical Center in Pune, India compared three desensitizing products: 7.5 percent NovaMin toothpaste (Soothe Rx), five percent potassium nitrate toothpaste (Sensodent K) and 0.4 percent stannous fluoride (Colgate Gel-Kam). The 12-week study included 120 subjects who were sensitive when tested with an explorer along the cervical areas of the teeth. All received an ultrasonic prophylaxis, followed by a four-week wash-out period before the study began.

Sensitivity was measured on the facial surfaces of incisors, cuspids and premolars with a blast of cold air and melted ice dripped on the cervical area from a micropipette. Subjects reported their pain on a visual analog scale from zero to 10. Sensitivity was measured at two, four and 12 weeks.

Subjects were randomly assigned to one of the three test groups and instructed to brush twice daily with their assigned toothpaste and refrain from eating or drinking for 30 minutes after brushing.

All three test products reduced sensitivity significantly by 12 weeks. NovaMin was able to reduce the sensitivity earlier and more significantly than the other two products.

Clinical Implications: Toothpaste containing NovaMin reduces dentinal hypersensitivity faster than potassium nitrate or stannous fluoride.

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The New Standard for Prevention

by Trisha E. O’Hehir, RDH, MS

Despite what you’re hearing about immune response and genetic predisposition, the primary etiologic factor for both caries and periodontal disease is still bacterial biofilm. Bacterial biofilm accumulates in areas that are well protected, specifically between the teeth and under the gums. Areas between the teeth, just below the contact point are also the places carious lesions begin. The bacteria metabolize sugars and produce lactic acid that melts the enamel. Caries is as much about pH as it is about bacterial biofilm. Periodontal tissue under the contact, called the col area, is less keratinized than facial and lingual tissue and thus more susceptible to the toxic waste products released by the bacterial biofilm. The toxic waste products trigger the immune response and white blood cells are dispatched to the area to attack the bacteria, but on the way to the sulcus, they destroy connective tissue and bone. Caries and periodontal disease are still significant problems that can be prevented.

According to text books authored by Dr. Per Axelsson, both caries and periodontal disease are more prevalent between the teeth than on facial or lingual surfaces. Despite this fact, oral hygiene instructions of the past put greater emphasis on brushing surfaces than on interproximal surfaces, the surfaces at greatest risk of disease. Brushing was always taught first, followed by flossing. Occasionally an interdental brush was recommended, rarely was oral irrigation suggested and xylitol was a well-kept secret. To this day, many think oral hygiene instruction means brushing and flossing. That was the standard of care, until today.

There is a way to reduce plaque levels 50 percent without relying on the skill and technique needed for brushing and flossing. According to research published in the 1970s by Drs. Scheinin and Makinen, five exposures of xylitol each day will reduce plaque levels up to 50 percent. That’s comparable to the effect of daily brushing and flossing. Introducing xylitol five times daily will change the bacterial environment by blocking the metabolism of sugar. Xylitol is a natural sweetener, but it is a five-carbon molecule rather than a six-carbon molecule like fructose, glucose and sorbitol. The smaller molecular size allows the xylitol to pass through the bacterial cell wall. However, the bacteria is unable to metabolize the xylitol and has to use its own membrane pump to pump out the xylitol molecule. The xylitol molecule simply turns around and goes back inside the bacteria, creating a cycle of energy use by the bacteria with no energy being derived from the xylitol molecule. The bacteria cannot produce more acid, cannot communicate with neighboring bacteria and therefore no polysaccharide slime is produced to keep the biofilm intact. The biofilm dissolves and the bacteria simply slides off the teeth and down the digestive tract. At the same time, the oral pH is elevated.

Today is the dawning of a new standard of care for oral hygiene instructions. This is the new prevention, where brushing comes last, not first. Prevention is no longer simply a stick with bristles and a piece of string – both of these require skill by the user. What about children, teens, the elderly, nursing home residents, people with arthritis or those in hospitals? Prevention needs to work even when individuals don’t have skills or dexterity to brush and floss. The new standard for prevention controls bacterial biofilm first with xylitol and oral probiotics and then with sticks, picks, interdental brushes or water between the teeth and brushing comes last.

Bypass Mechanical Skills with Xylitol and Oral Probiotics

Brushing and flossing require skill and dexterity to effectively remove bacterial biofilm. Reviewing the research, Dr. van der Weijden reported a 50 percent reduction (at best) in plaque and gingivitis scores with oral hygiene instructions and prophylaxis. This is not a very good success rate, primarily because of a lack of dexterity and accuracy with a toothbrush and dental floss. Also lacking is a way to measure if the plaque is successfully removed.
Oral probiotics are now available to change the balance of bacteria in the mouth to a balance that favors health. The bacterial make-up of a healthy mouth is much different from a mouth full of cavities or periodontal disease. By studying the healthy mouths as well as those with disease, researchers have identified bacteria present in healthy mouths that are missing from diseased mouths. Oral probiotics deliver the missing bacteria in a xylitol mint or candy to be dissolved in the mouth, thus delivering millions of colony-forming units of the missing bacteria to change the balance of bacteria in the oral cavity. Creating a healthy mix of bacteria in the mouth prevents caries and periodontal disease. Xylitol and oral probiotics provides reliable measures to reduce bacterial biofilm without depending on manual dexterity skills to mechanically remove bacterial biofilm with a toothbrush and dental floss.

The first two steps in the new standard for prevention require no skill on the part of the user, simply use xylitol products five times daily and oral probiotics twice daily. Xylitol is available in many forms – gums, candies, gels, baby wipes, toothpaste, mouth rinse and packets for eating. Xylitol is also used to sweeten oral probiotics. Look for products like those from Spry that are 100 percent xylitol-sweetened and available in health food stores or online. Evora probiotics provide the missing oral bacteria to establish a healthy oral flora.

**Mechanical Disruption**

With the bacterial biofilm reduced significantly with xylitol and the bacterial balance shifted toward health, it's time for the mechanical disruption of the remaining plaque biofilm. Since disease begins between the teeth, it makes sense to start the mechanical disruption of biofilm between the teeth, using sticks, picks, interdental brushes or oral irrigation. Flossing statistics from Drs. Steward and MacGregor confirm what dental professionals already know – two to 10 percent of people actually floss on a daily basis. It seems the only people who floss regularly and effectively are hygienists and dentists! Patients are skillful at putting floss between their teeth without ever touching the plaque or going below the gingival margin. Offer other alternatives that are easy to use and comfortable. The most overlooked option for interdental plaque disruption is oral irrigation; it’s like flossing with water. Oral irrigation is effective in blasting off huge sections...
of biofilm both supra and subgingivally. It’s also easy to do; simply aim the jet tip 90 degrees toward the interproximal space and hold for a few seconds. Done.

The last step in the mechanical disruption process is the toothbrushing. Working with what people are already doing will make this part successful. According to Dr. Beals, people in the U.S. spend only 37 seconds brushing their teeth. Using this as a starting place, the only toothbrush to cover all surfaces in such a short time is the 30-Second Smile power toothbrush. This brush is a car wash for the mouth. Simply bite on the brush head and it will brush top, bottom, inside, outside and biting surfaces all at once, taking only 30 seconds to cover the entire mouth. This brush removes the need for skill in placing and moving the toothbrush correctly. Many standard power toothbrushes now have two-minute timers to ensure adequate time to move the brush around to all surfaces of the teeth.

For those using a manual toothbrush, the short brushing time is due to the foaming and bubbles of toothpaste. Without toothpaste, people brush much longer and more evenly around the mouth. Plaque biofilm levels are the highest on the lingual of the lower teeth, especially the right side. This is where toothbrushing should start. Instruct patients to start brushing on the lower lingual surfaces and brush until all the teeth feel clean and taste clean. When the biofilm has been removed, then add toothpaste and brush once more around the mouth. Brushing without toothpaste allows the patient to feel the bacterial biofilm before and after brushing, something not possible when using toothpaste due to the flavor and wetting agents. Toothpaste makes the mouth feel clean when it’s not yet clean. Dry brush first until the teeth feel clean and taste clean, then add toothpaste.

The tongue also needs to be cleaned to remove bacterial biofilm and volatile sulfur compounds. No gold standard has yet been identified for tongue cleaning, so recommend what you prefer to use yourself. Some prefer a brush, others prefer one of the many tongue scrapers now available. Gentle brushing or scraping will remove tongue biofilm.

Self-tests for Prevention

Feeling bacterial biofilm on the teeth, testing the salivary pH and checking for bleeding between the teeth are three easy self-tests. Before any action to control the biofilm, teach patients to feel the biofilm in their own mouth using their tongue. Focus on the lingual of the lower posterior teeth along the gingival margin and along the gingival margin on the facial surfaces of the maxillary molars. Using the tongue they can feel for biofilm before and after each oral hygiene session and throughout the day as biofilm accumulates. Knowing where the biofilm is before taking action will provide the feedback to evaluate toothbrushing effectiveness. In order for the tongue to evaluate bacterial biofilm removal, toothbrushing needs to be done first without toothpaste until the bacterial biofilm is removed. After the teeth feel clean to the tongue the toothpaste can be added.

Testing salivary pH is easy using a piece of litmus paper or a pH strip. Simply spit into a spoon and then apply the pH strip and check the color change. The pH strip is also good for checking the pH of foods, drinks and oral hygiene products. People are surprised that drinking coffee all day will lower their salivary pH.

The Eastman Interdental Bleeding Index (EIBI) is a toothpick test for interdental bleeding developed by Drs. Caton and Polson. It was shown in a study by Dr. Bliedin to be more reflective of interdental inflammation than bleeding on probing scores. Where interdental space allows, insert a triangular wooden stick from the facial and push in and out four times, looking for bleeding within 15 seconds. This can be done in all interproximal areas to check for bleeding, a sign of infection. Although no research has been published using plastic sticks, they just might provide similar information about interdental infection when used to do the EIBI test.

Conclusion

It’s time to move beyond brushing and flossing to the new standard for prevention. Today prevention focuses first on changing the oral environment with xylitol and oral probiotics before cleaning between the teeth and eventually brushing and tongue cleaning. Feeling plaque biofilm with the tongue before and after brushing, testing pH of the saliva and checking for bleeding between the teeth are easy ways to monitor success. Giving patients the science, ingredients and tools to effectively control bacterial biofilm and salivary pH is the new standard for prevention.

References

Approximately 45 million Americans suffer from dentinal hypersensitivity. It appears that the ages of 25 to 50 are most affected, and there is a slight predilection for women. With age, there is an increase in reparative dentin; hence sensitivity might decrease over time. A reaction might be elicited from cold or hot temperatures, or change in oral pH. Sweets might also be the culprit. Another reason for dentin hypersensitivity is lost cementum due to either the toothpaste used with aggressive toothbrushing or recession. One of the most common causes of tooth sensitivity today is post-operative teeth whitening. Post-periodontal therapy tends to increase tooth sensitivity, as well.

Dentin is not normally exposed to the oral cavity. Enamel, although it is the hardest tissue in the human body with its hydroxyapatite formation and lack of nerve cells, is fairly impervious, but not immune to many types of chemical and tactile attacks. Enamel is primarily hydroxyapatite and crystalline, while dentin contains more organic components and water. Dentin is usually covered by enamel and cementum. It is composed of tubules that extend from the enamel/cementum, traversing through the core of the tooth, with the cell bodies located in the pulp. Dentinal sensitivity occurs primarily due to tubules open to the oral cavity. Thermal, tactile or osmotic changes in the mouth might elicit the sharp, momentary pain that is not due to a frank carious lesion, but rather changes within the dentinal tubules.

As professionals, decreasing a patient's dentinal sensitivity can be accomplished by occluding the tubules to prevent the fluid shift and hence, eliminate the pain of sensitivity. There are several treatment modalities available, ranging from topical applications of fluoride, varnishes, various dental restorative materials and lasers to periodontal grafting procedures. Plaque control is paramount in decreasing the acid environment and maintaining a healthy oral flora.

A new combination of an in-office treatment and an at-home regimen shows promise in relieving dentinal hypersensitivity. The therapy begins with an in-office treatment utilizing a fluoride prophy paste containing NovaMin. This is followed with home use of a therapeutic toothpaste also containing NovaMin and 5,000ppm fluoride.

NovaMin is a calcium sodium phosphosilicate bioactive glass, originally created as a bone regenerative material. It has the capacity, when it interacts with saliva, to release calcium and phosphate ions, which remineralize the enamel matrix by forming hydroxyapatite. Sodium ions in the bioactive glass react with hydrogen ions, causing an increase in salivary pH. This allows rapid release of calcium and phosphate into the saliva.

Nupro prophy paste has been available for more than 25 years and was extensively used for stain removal and selective polishing. Dentsply has now added Novamin to Nupro prophy paste to occlude the dentinal tubules and reduce hypersensitivity while polishing the teeth.

GSK has created a brand of Sensodyne toothpaste which contains 5,000ppm fluoride toothpaste plus NovaMin. This will further continue the therapeutic levels of available NovaMin at home daily, providing continuous benefits to both occlude the tubules and rebuild the tooth. Proper recall and maintenance are recommended to ensure patients’ continued health.

Combining Nupro prophy paste containing NovaMin and Sensodyne 5,000ppm fluoride toothpaste with NovaMin offers a dual-therapeutic treatment for continuous care of dentinal hypersensitivity, both at the office and at home, providing a closed loop of care for patients suffering with dentinal hypersensitivity.

**Author’s Bio**

Sheri B. Doniger, DDS is a leading dental clinician, author, educator and consultant who currently practices dentistry in Lincolnwood, Illinois. Dr. Doniger has authored numerous articles and has presented many lectures with a focus on women in the dental industry.
Running Behind

It happens to all of us sometimes. When it does, what do you do to remedy the situation?

The worst is running late on the first patient of the day! I remember days when everything went wrong with the first appointment – the doctor would arrive late, the patient would need radiographs, we would have equipment problems, the doctor would spend way too much time talking with the patient and the rest of the morning was a blur of rushing. We were able to reach some patients to ask them to come 10 to 15 minutes later. Of course there was no lunch break, just started all over at 1 p.m.

I encourage the doc to come in early in the appointment. If it looks like he is going to be late or my next patient is in the waiting room I’ll move the patient to another room or take the next patient’s X-ray then reseat them in waiting room if there is a room “crunch.” If the patient is late, I will only do exam and X-ray or prophylaxis only. If it looks like I’ll be running behind, I’ll alert assistants so they can get X-ray and maybe exam first. If the patient has been kept waiting through no fault of their own, we will send some sort of gift for their patience. Definitely a team effort to keep the schedule running smoothly.

You hit the nail on the head! If the whole team makes it a priority to stay on time then it can happen. In our practice we have two hygienists and a dedicated hygiene assistant working four rooms. We are rarely running behind, but it does take resources to make it work. The doctor is free to check patients at any time but usually still waits until the end unless there is a “crunch” going on.

Late patients are told that they can wait for an opening (the one often created by the patient who showed up a little ahead of schedule – we can simply flip-flop the appointments, even trade with the other hygienist – whatever it takes to make it work. Rarely do we reschedule someone who is late unless they are at the end of the day.

I agree, it takes teamwork. I work with four hygienists and two docs. We have one sterilization/hygiene assistant. Perfect example, this morning my first patient was 10 minutes late (we book 60 minutes) and needed full-mouth X-rays, exam, full-mouth prophylaxis and of course is perio maintenance. I alerted the hygiene assistant that I was going to run late, set up a second op for a complete exam and seat my “on-time” 9 a.m. patient (which she can take images and update med history, take blood pressure and complete the dental charting.). Fortunately, we had the space to accommodate that this morning.

Our office uses a walkie-talkie system with ear buds. We stagger our hygiene start times every half hour (two appointments at 7:30, two appointments at 8 a.m.). After
obtaining all diagnostic records, we polish and radio we are ready for an exam at any time. This tells the dental assistants and doctors they can stop by to check the patient, even if we’re still cleaning their teeth. If the doc doesn’t show up by the time we are done, we radio “we are ready for an exam.” The dental assistants know they need to respond with an ETA for the doc’s arrival.

Yes, hygiene must run on time. No excuse for being more than five minutes late starting the next patient. Many of these folks have made special arrangements to get off work for enough time for this and we have to appreciate that and manage our time accordingly. We use MessagePal computer messenger for this and many other things. The good thing is that this software puts a huge popup on the screen for all to see. And the doc can’t see his radiographs without dismissing the message first. We have a one-hour lunch, so the last patient in the morning or afternoon can run over without inconveniencing the next person.

Oh my goodness... this is such an acute issue for me. Meaning that I’ve been running anywhere between five and 20 minutes late almost consistently. If anyone has any tips or ideas about what I can do it would be much appreciated.

My office runs late because patients always show up late. It’s mainly due to lack of parking and a younger population. I think younger adults tend to be more flakey and tardy. In my office it’s 60 minutes no matter if it’s a new patient or a recall, so by the time they finish their paperwork, X-rays and treatment/payment planning it’s already 30 minutes past. Therefore I’m always running 20-30 minutes late when this happens. Furthermore my doctor is always double-booked, so it’s common for me to just wait for her to get an exam. The only way for me to catch up is with cancellations and during lunch. It’s hard to complain to the owner when she is always running an hour or two behind. Yesterday, she was running three hours behind, but that’s how she likes it.

Most folks I have worked with – including dentists – have no problem letting us do what we can in the appointed time and then bringing back the patient for another appointment to finish. Just today I had two new patients back to back in my schedule. I could not quite finish the first one (five years since last visit to a dentist, 10 bombed out teeth and tobacco-related moderate perio), so I had another staffer finish her while I moved on to the next new patient, whom I started only five minutes late. Everyone was happy and the schedule stayed intact, even though the doc had a big cosmetic case on the go and two hygienists running simultaneously (other one had new patients also). We do it all the time – bring patients back another day for their polishing, fluoride, impressions, quad scaling, etc. The schedule is gospel because we respect our patients (and our sanity).
Advanced Attachment Loss Due to Aggressive Oral Hygiene

Aggressive oral hygiene with heavy pressure, especially with an interproximal brush, will cause recession and loss of tooth structure.

These are photos of a patient who over many years continued to experience significant attachment loss in spite of excellent compliance in attending our office for professional cleanings.

**Fig. 1:** Note the gingival recession and interproximal notching of the root surfaces due to excessive proxy brush use.
**Fig. 2:** Similar damage noted on the left view.
**Fig. 3:** Note the instability of the marginal gingival tissues on teeth #6 and #8.
**Fig. 4:** Right side radiographic view of the osseous levels and extensive notching of the root surfaces.
**Fig. 5:** Anterior radiograph and damage to the root surfaces.
**Fig. 6:** Left side radiographic view.

The patient continued to deny any aggressive oral hygiene techniques and in spite of soft tissue grafting procedures, professional cleanings and meticulous oral hygiene instructions, the case continued to go downhill. It is imperative that we assure that our patients are removing plaque on a daily basis utilizing proper techniques and pressures. ■
Wow, Albert. Thanks for posting this. I am anxious to hear more about what this patient is doing as far as home care.

We have all seen this on lower anterior teeth, usually in a perio office too, but I’ve never seen it on the maxillary teeth. I always thought it was from hand scaling damage. Is there any sensitivity? This patient appears to be one of those “chronic inflammation” cases causing attachment loss, especially on the prominent canine teeth (then add occlusion issues and aggressive home care). I can see this patient has it posterior too. I would definitely have this patient on SDD (or Periogain to down-regulate collagenase and hyaluronidase). Maybe you could do a PST test and let us know if this patient has hyper-inflammatory response. Could you share host factors? Any history of heart disease here?

This patient has no medical problems and is in his early 60s. There is likely a genetic component since his problems began in his 20s. Unfortunately he is slated for full-mouth extractions and dental implants.

When I worked, I would brush the patient’s teeth for them so they could learn the amount of pressure that should be placed on the teeth. They were quite surprised that it didn’t take much pressure to remove the plaque, just the correct technique. And the two most important things I taught were holding the brush vertical in the anterior area and using it dry first in any problem area. I would have them feel their teeth afterward to “see” if their teeth were clean. If they still felt fuzzy I would instruct them to go one more time around the mouth (using the same pressure), and then feel again.

In the case posted, the entire dentition over time (25 years) continued to develop attachment loss. The patient had no muscular occlusal complaints, TMJ dysfunction or any symptomatology. There were no underlying medical problems such as diabetes. He was not immunodeficient. He checked out absolutely normal from a medical perspective. He exercised and was not overweight. What is also interesting is that the tooth mobility patterns were minimal in spite of the significant horizontal bone loss. He does have a thin periodontium, which could have predisposed him to the recession noted. Even with connective tissue grafting the gingival margins did not stabilize. This patient had treatment by a very experienced hygienist in our office. He attended all the recommended recall intervals. He had courses of antibiotics and irrigation with iodine. He was using 0.12 percent chlorhexidine gel twice a day. I believe we were able to slow the disease down but were unable to stabilize him. Occlusion could be a factor but I have never seen such resistance to all our treatment strategies.
Townie Choice Awards Public Notice

This notice is to provide the purpose, methodology and input required from dental professionals, dental companies and Dentaltown.com and Hygienetown.com, divisions of Farran Media, LLC, regarding the Townie Choice Awards.

Purpose of the Townie Choice Awards: To provide dental professionals with an impartial resource to assist them in their selection of dental products, equipment and services.

Fees to participate: None

Methodology: Categories of the most common dental products, equipment and services are developed, with the aid of multiple industry resources and the Dentaltown.com and Hygienetown.com online communities. For each category, all dental manufacturers are given the opportunity to submit up to three products of their choice. Dentaltown and Hygienetown do not attempt to make any recommendations on inclusion or exclusion of any products, equipment or services listed on the voting ballots. Please note that all entries are subject to review.

Voting process: Voting is done online. One ballot per licensed clinician.

Results: Results will be electronically tabulated and the winning entries for each category will be published in the December issue. The results will be made available online at www.dentaltown.com and www.hygienetown.com after the December issue is printed and delivered.

Responsibilities of each party:

Dental Community:
• Vote! Let your voice be heard. Share your experience with fellow dental professionals.
• Provide feedback as to the process of the awards to help make this resource useful to dental professionals.

Dental companies:
• Participate in the Townie Choice Survey. Enter your products to be included on the ballot.

Steps to participate:
• Farran Media will send an e-mail notice so products can be loaded in a secure ballot.
• Load your products into the online ballot May 18–June 6, 2011.
• Any questions, contact Leah Harris at leah@farranmedia.com or 480-445-9693

Farran Media, LLC:
• Send the manufacturers a notice that will allow them to enter products on the ballot.
• Offer a non-biased platform to dental companies to participate in the survey.
• Provide a non-biased platform to dental professionals to benefit from the survey.
• Offer all dental companies an equal opportunity to list their products, equipment and services.
• List product choices in alphabetical order.
• List winners with product images and descriptions in December special edition of Dentaltown Magazine at no charge.
• Display the top Townie Choices in each category with voting details including number of total votes and votes per product on www.dentaltown.com and www.hygienetown.com.
• Provide the Townie Choice Award artwork/logo to winning companies to use on their marketing materials at no charge.
• Will not rent, sell or otherwise make available dental professionals names and their corresponding choices.

Schedule:
July 13-August 19, 2011 – Townies vote for their preferred products online
Mid-September 2011 – Farran Media will notify the 2011 TCA winners
September 30, 2011 – Deadline for the winning companies to submit product information and images
December 2011 – The 2011 TCA winners are revealed in Dentaltown Magazine!