Researchers find clue that may get biofilm to leave teeth alone

Harmful bacteria on marine sponge collectively decide when it’s time to break up and move on

A new study shows that when enough bacteria get together in one place, they can make a collective decision to grow an appendage and swim away. This type of behavior has been seen for the first time in marine sponges, and it could lead to an understanding of how to break up harmful bacterial biofilms, such as plaque on teeth or those found on internal medical devices, such as artificial heart valves.

Bacteria have ways of communicating with each other, and scientists have now identified a new signaling system that, when a critical mass of bacteria present, causes the bacteria to produce an appendage known as a flagellum that moves like a corkscrew and gives them the ability to swim away, inhibiting the formation of biofilm.

“Anything we can discover about this bacterial communication could be really important in understanding how bacteria become pathogenic in humans or how they form film on teeth or internal medical devices,” said study coauthor Dr. Russell Hill, Director of the Institute of Marine and Environmental Technology in Baltimore. “Understanding that process may help in the future for controlling biofilms.”

It is estimated that pound by pound there are more bacteria on the Earth than all other life forms combined. They are simple organisms that consist of one cell and can be seen only through a microscope. However, bacteria have evolved ways to gather into densely populated and slimy communities called “biofilms,” which attach to hard surfaces. They also know how to talk to each other, and can make group decisions about how to behave, called “quorum sensing.”

Just like in a business meeting, once enough bacteria gather in one place — or a quorum is met — a decision about their collective behavior can be made. This “quorum sensing” is responsible for a number of cellular processes, including triggering molecular mechanisms that can make the surface of the ocean light up at night and the gathering of bacteria that causes plaque on teeth, otherwise known as biofilm.

• See BIOFILM page A2

Online registration ends Sept. 27 for the American Academy of Implant Dentistry annual meeting, Wednesday through Saturday, Oct. 3–6, in Washington, D.C. After the 27th, you will need to register at the event, which the AAID describes as, ‘Implant Dentistry: Debating the Options for Practical Solutions — Practical Education for the Practicing Implant Dentist.”

Photo/Provided by www.sxc.hu.
The bacteria that colonize and are dependent on these marine sponges use quorum sensing to activate their locomotion when their population becomes dense, naturally limiting the amount of biofilm they form.

“This precise calibration of the bacterial interactions within the sponge may have evolved to help maintain a healthy, well-distributed symbiotic population,” said study coauthor Clay Fuqua of Indiana University. “Similar mechanisms may be at play in other complex microbial communities within hosts such as those within human intestines and in symbiotic plants.”

The study, by scientists from the University of Maryland Center for Environmental Science’s Institute of Marine and Environmental Technology, Indiana University, and University of Colorado Denver’s School of Medicine, is in the September 2012 issue of Molecular Microbiology.

The marine sponge research is the latest in a series of discoveries to emerge from long-running efforts to find new ways of combating biofilm in humans to improve oral health.

Most bacteria in nature exist in communities of biofilms, structures that serve as physical barriers and severely limit the effect of antibacterial agents. Oral biofilms are commonly associated with infections such as cavities, gingivitis and periodontal disease. With antibiotic resistance continually on the rise, researchers are constantly exploring alternative sterilization methods to effectively treat biofilms.

In another recent effort, researchers from Hebrew University, Hadassah, Jerusalem, Israel and the University of California San Francisco, determined that the blue light commonly used by dentists to cure resin fillings, when combined with hydrogen peroxide (H₂O₂), may be capable of reaching and treating bacteria in deep layers of biofilms that can cause cavities and gingivitis.

The study exposed biofilms of *Streptococcus mutans* to wavelengths of visible light consisting of 400-500 nm for 30-60 seconds while in the presence of 3-300 mM of hydrogen peroxide. Microbial counts from each treated sample were compared with those of the control and results showed that visible light and hydrogen peroxide combined successfully penetrated all layers of the biofilm creating an antibacterial effect.

“The ability of noncoherent visible light in combination with H₂O₂ to affect bacteria in deep layers of the biofilm suggests that this treatment may be applied in biofilm-related diseases as a minimally invasive antibacterial procedure,” the researchers said.

(Source: Indiana University, the University of Colorado Denver’s School of Medicine, the University of Maryland Center for Environmental Science’s Institute of Marine and Environmental Technology, the American Society for Microbiology and Science Daily)
Coconut oil could combat tooth decay

The natural antibiotic would be added to commercial dental care products

Digested coconut oil is able to attack the bacteria that cause tooth decay. It is a natural antibiotic that could be incorporated into commercial dental care products, say scientists presenting their work at the Society for General Microbiology’s Autumn Conference at the University of Warwick, in Ireland.

Inhibited the growth of most strains of Streptococcus bacteria

The team from the Athlone Institute of Technology in Ireland tested the antibacterial action of coconut oil in its natural state and coconut oil that had been treated with enzymes, in a process similar to digestion.

The oils were tested against strains of Streptococcus bacteria that are common inhabitants of the mouth. The team of researchers found that enzyme-modified coconut oil strongly inhibited the growth of most strains of Streptococcus bacteria, including Streptococcus mutans — an acid-producing bacterium that is a major cause of tooth decay.

Earlier foodstuff studies prompted coconut-oil research

Many previous studies have shown that partially digested foodstuffs are active against microorganisms. Earlier work on enzyme-modified milk showed that it was able to reduce the binding of S. mutans to tooth enamel, which prompted the group to investigate the effect of other enzyme-modified foods on bacteria.

Further work will examine how coconut oil interacts with Streptococcus bacteria at the molecular level and which other strains of harmful bacteria and yeasts it is active against.

Additional testing by the group at the Athlone Institute of Technology found that enzyme-modified coconut oil was also harmful to the yeast Candida albicans, which can cause thrush.

No chemical additives and avoids concerns with antibiotic resistance

The researchers suggest that enzyme-modified coconut oil has potential as a marketable antimicrobial, which could be of particular interest to the oral health care industry.

Dr. Damien Brady, who is leading the coconut-oil research, said, “Dental caries is a commonly overlooked health problem affecting 60 to 90 percent of children and the majority of adults in industrialized countries.

“Incorporating enzyme-modified coconut oil into dental hygiene products would be an attractive alternative to chemical additives, particularly as it works at relatively low concentrations. Also, with increasing antibiotic resistance, it is important that we turn our attention to new ways to combat microbial infection.”

The work also contributes to our understanding of antibacterial activity in the human gut.

“Our data suggests that products of human digestion show antimicrobial activity. This could have implications for how bacteria colonize the cells lining the digestive tract and for overall gut health,” Brady said. “Our research has shown that digested milk protein not only reduced the adherence of harmful bacteria to human intestinal cells but also prevented some of them from gaining entrance into the cell. We are currently researching coconut oil and other enzyme-modified foodstuffs to identify how they interfere with the way bacteria cause illness and disease,” he said.

(Sources: Society for General Microbiology, Athlone Institute of Technology, AlphaGalileo Foundation and Science Daily)
Direct mail, email or social media: What’s best in dental practice marketing?

There’s been a swing in the electronic-versus-paper pendulum

By Sally McKenzie, CEO McKenzie Management

You may have heard that the U.S. Postal Service is losing money. Evidently people aren’t sending as many letters through the mail, and more are paying their bills electronically. So what does this mean for dentistry? Plenty. For starters, that friendly mail carrier just might be the key link between you and a host of new patients.

Today, direct mail marketing is as strong as it has ever been. Why? The obvious reason is that fewer businesses are using it. Instead they are filling up your electronic mailbox with special offers, promotions, catalogs, coupons and the list goes on. They are inundating consumers with email, consequently, what was once old is new again. Snail mail marketing is back, and we’re all the better for it.

While electronic communication and marketing have exploded, so too has the amount of digital garbage. Spam and junk email folders collect hundreds of marketing missives that are targeted for us but miss their mark. Web page ads become digital wallpaper on our computer screens. It’s there, but we don’t notice it like we did when it was new. Don’t get me wrong, email and electronic communication are absolutely critical in effectively marketing a dental practice. But they are only part of a total marketing strategy.

What’s more, direct mail can be used for a multitude of marketing purposes, including generating new patients, reconnecting with former patients, creating awareness of the practice in the community, educating patients and the community about services, and the list goes on.

Case in point: “Dr. Maxwell” recently took over a practice in a smaller southwestern city. The dentist she bought it from was retiring after many years. Maxwell has invested a fortune in updating the equipment, technology and décor. The place looks fantastic, but the patient base under her predecessor had been dwindling. There were plenty of patient records, but the problem was that only a fraction of them were active. Maxwell needed to get her practice name into the community. She needed to reconnect with former patients, and she needed to set herself apart from the other dentists in the area.

To her credit, she didn’t attempt to go it alone. Maxwell worked with a professional dental marketing company to establish her practice’s brand, develop a custom website and train her team. But even with several marketing pieces in place, the puzzle still wasn’t coming together. She needed to increase the number of new patients.

Direct mail, like many marketing tools, tends to be misunderstood. Typically, dentists will claim that direct mail doesn’t work, doesn’t deliver the patient numbers they want and is too expensive to bother with in this age of electronic communication. Yet, few truly un-
stand how direct mail works and the fact that the return on this investment can be huge — provided it’s done right. However, as is often the case, it’s not the “tool” that fails, typically it’s the manner in which it is used. In other words, most direct mail campaigns that don’t produce results are poorly executed.

In Maxwell’s case, an overall marketing strategy was developed for the practice to implement over the long term. One component of that strategy was a direct mail campaign. During the course of 12 weeks, the campaign targeted prospective patients with professionally designed direct mail pieces. The phones were ringing. Her staff was trained to handle the increased phone and patient activity, and she was well on her way to rebuilding the practice patient base.

Email and social media: marketing answer or just a fad?

Certainly, direct mail is a long-standing staple of marketing, and while social media has become increasingly important in an overall marketing plan, it’s critical that electronic communication be used, but not abused.

Certainly, there are exceptions to the rule, but the vast majority of patients would happily receive information on practice services, an occasional electronic newsletter and definitely appointment confirmations through email.

Consider the numbers. According to www.twibatemarketing.com, email is used far more than Facebook and Twitter combined. How much more? Daily activity for Facebook is pegged at 60 million updates. Twitter sees about 140 million tweets per day. Email: 188 billion messages. Clearly, email has become a primary mode of communication in this electronic age. Used wisely and as one component of a multripronged and clearly defined practice marketing strategy, email can be an excellent and efficient means of staying in contact with patients in between appointments. It’s not the only way or the single best way to communicate with them, but, if done well, email can help you to effectively market your services, your team and your practice.

Getting the process in place won’t happen overnight, and while it does take time and some professional guidance, it begins with asking your patients one simple question. May I have your email address so that we can send you appointment reminders and other practice information?

The vast majority of your patients will be more than willing to share their email addresses with the office. They may want some assurances that their information will be kept confidential and not sold to any other third party vendor. And there are specific laws and regulations that must be followed when sending email, so seek the guidance of a professional dental marketing company.

But be wary of those who claim that all you need to market your practice is email and social media. Truth be told, these are relatively small pieces of a total marketing plan. They are not free and they are not the “silver bullet” that will drive droves of patients to your door.

Marketing, like dentistry, is both an art and a science. There is no single treatment that will cure all dental disease. The same holds true for marketing the dental practice. There is no “silver bullet” technique to effectively market dentistry. It requires a plan, a strategy and a system that is an integral part of running the business.
Dental office emergency drugs

Part 2: Understand critical office resuscitative emergency (CORE) drugs before you need them

By John Roberson, DMD

Editorial Note: Part 1 of this two-part article was published in the July 2012, Vol. 7, No. 7, Dental Tribune U.S., which is available online at www.Dental-Tribune.com.

Key points from Part 1

Every dentist should realize that medical emergencies can, do and will happen during the course of practice. These emergencies could be related to dental treatment, patient risk factors, or they could occur unexpectedly. A medical emergency could evolve into a life-threatening emergency without proper treatment. It is for these reasons emergency medications should be present in dental offices.

Part 2 looks in detail at the CORE (Critical Office Resuscitative Emergency) eight emergency drugs needed for dental offices and suggested emergency medications for practices doing advanced anesthesia.

The CORE 8

Albuterol
Definition: Bronchodilator — stimulates beta-2 adrenergic receptors causing bronchodilation
Use: Bronchospasm (acute asthmatic attack)
Dosage: One to two puffs per dose.
Caution: No contraindications to using albuterol in acute episodes of bronchospasm.
Suggested stock: One albuterol MDI inhaler
Ammonia inhalants
Definition: A respiratory stimulant
Use: Syncpe/fainting/loss of consciousness
Caution: Dosage: 1–2 vapoportes.
Suggested stock: One box of ammonia vapoportes.
Aspirin
Definition: Anti-platelet — inhibits prostaglandin synthesis and inhibits platelet aggregation irreversibly
Use: Suspected myocardial infarction.
Dosage: One 325-mg non-enteric, coatad aspirin tablet, chewed and swallowed or 81 mg chewable tablets, chewed and swallowed.
Caution: Aspirin should not be given to persons who are allergic to it or have active gastrointestinal bleeding.
Suggested stock: One or two packets of chewable 325-mg non-enteric, coated aspirin or four 81 mg chewable tablets.
Diphenhydramine
Definition: Antihistamine — antagonizes histamine at the H-1 receptor, causes sedation and has an anti-cholinergic effect.
Use: Allergic reaction/anaphylaxis.
Dose: 50 mg IM or IV.
Caution: No contraindications to giving diphenhydramine during an allergic reaction unless noted allergy or hypersensitivity to diphenhydramine.
Suggested stock: 1) Two 5 ml ampules or vials of diphenhydramine 50 mg/ml and/or 2) Diphenhydramine HCL capsules 25 mg.
Epinephrine 1:1,000
Definition: Cardiac stimulant/anaesthetic — activates alpha and beta-adrenergic receptors increasing heart rate, myocardial contractility, bronchial dilation and decreases peripheral vascular resistance
Use: Anaphylaxis/bronchospasm.
Dosage: 0.3 mg IM q5 minutes.
Caution: No contraindications to giving epinephrine during anaphylaxis.
Suggested stock: 1) Two auto-injectors of epinephrine in adult form and pediatric form (EpiPen and EpiPen Jr) and 2) Two 1 ml ampules or vials of epinephrine 1:1,000.
Glucone source
Definition: Antihypoglycemic — increases glucose level for treatment of hypoglycemia.
Use: Hypoglycemia.
Dosage: One tube of glucose gel.
Caution: Unconsciousness. Never administer anything orally to an unconscious person.
Suggested stock: 1) Three tubes of glucose gel (InstaGlucose™) and 2) Three tubes of glucose tablets.
Nitroglycerin
Definition: Anti-anginal — stimulates cGMP production, which relaxes vascular smooth muscle significantly in the coronary arteries in the presence of an anginal attack.
Use: Chest pain (angina)
Dosage: The usual dose of nitroglycerin is one sublingual (0.4 mg) tablet or one spray (0.4 mg) from nitroglycerin spray atomizer administered q5min.
Caution: Patients with low blood pressure.
Suggested stock: One bottle of 25 tablets or one spray atomizer.
Oxygen
Use: Almost any type of medical emergency.
Dosage: At least 2 liters/minute.
Caution: Do not use with hyperventilation.
Suggested stock: One portable “I” cycler of oxygen with regulator and the equipment necessary to deliver O2 to the victim (nasal cannula and ambu-bag).

Additional emergency drugs for consideration

These additional emergency drugs are suggested for practices that do any type of advanced anesthesia, such as PO sedation, IV sedation, or general anesthesia.
Practitioners may have their own choices of emergency drugs due to their type of practice as well as training background.
Reversal agent — benzodiazepine
Flumazenil (Romazicon) — benzodiazepine antagonist: reverses effect of benzodiazepines by competitively inhibiting the GABA receptors.
Reversal agent — narcotics
Naloxone (Narcan) — narcotic antagonist: reverses the effect of narcotics by competitively inhibiting narcotic receptor sites.
Injectable anti-cholinergic
Atropine — anti-cholinergic: antagonizes acetylcholine at the muscarinic receptors, increasing the heart rate as well as having an anti-sialogogue effect.
Injectable corticosteroid
Hydrocortisone (Solu-Cortef) — anti-inflammatory: a corticosteroid secreted by the adrenal cortex which has anti-inflammatory, anti-allergic, mineralocorticoid activity and stimulates gluconeogenesis.
Dexamethasone — anti-inflammatory: a corticosteroid secreted by the adrenal cortex; it has anti-inflammatory, anti-ergic, glucocorticoid activity and stimulates gluconeogenesis.
Injectable anti-hypertensive
Esmolol — beta-antagonist: is a cardioselective beta receptor blocker with rapid onset and a very short duration of action, with no significant intrinsic sympathomimetic or membrane stabilizing activity at therapeutic dosages. It decreases the force and rate of heart

Contact him at (601) 261-2611 or info@johnroberson.com.

John B. ROBERSOn, DMD, is a full-time practicing oral and maxillofacial surgeon. He is board certified by the American Board of Oral & Maxillofacial Surgery and the National Dental Board of Anesthesiology. He is a co-founder and former CEO of the Institute of Medical Emergency Preparedness (IMEP), and he co-developed the curriculum for Advanced Life Support for Dentistry (ALSO), which covers medical emergencies, airway emergencies, emergency drug kits and medical emergency planning. He co-developed the Emergency Response System (ERS), a comprehensive medical emergency program for the dental profession. Roberson performed his residency in oral and maxillofacial surgery at University Hospital at the University of Cincinnati. He is a founding member of the American Association of Oral & Maxillofacial Surgeons Residents Organization (AOAOMS) and served as chairman. Roberson lectures extensively on emergency drugs and medical emergencies. Interested organizations can contact him at (601) 261-2611 or info@johnroberson.com.

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September starts the countdown to the largest dental congress and health care meeting in the United States. Photo/Provided by GNYDM

Contraction by blocking beta-adrenergic receptors of the sympathetic nervous system.

Labetolol — beta-antagonist: is a mixed alpha/beta adrenergic antagonist, which is used to treat high blood pressure.

Hydralazine: is a direct-acting smooth muscle relaxant used to treat hypertension by acting as a vasodilator primarily in arteries and arterioles.

Injectable anti-arrhythmic

Adenosine (Adenocard) — anti-arrhythmic: used for treatment of paroxysmal supraventricular tachycardia by slowing conduction time through the AV node as well as interrupting the re-entry pathways through the AV node.

Amiodarone (Cordarone) — anti-arrhythmic: a class III agent that inhibits adrenergic stimulation, which prolongs the action potential, decreases AV conduction and sinus node function. It is used for life-threatening recurrent ventricular fibrillation or hemodynamically unstable ventricular tachycardia.

Lidocaine — anti-arrhythmic: is a class Ic anti-arrhythmic drug that is used intravenously for the treatment of ventricular arrhythmias.

Verapamil (Isotin/Calan) — anti-arrhythmic: used for the treatment of paroxysmal supraventricular tachycardia, atrial flutter and atrial fibrillation.

Vasopressin (Pitressin) — an anti-diuretic hormone: adjunctive treatment used in pulseless ventricular tachycardia/ventricular fibrillation.

Conclusion

In conclusion, the emergency drug kit is essential for the practice of dentistry. No practitioner is able to determine when he or she will be faced with a medical emergency that will require the use of emergency drugs. It is for that reason alone, dental healthcare practitioners should stay up-to-date on medical emergencies as well as the drugs used to treat them. Develop a regular protocol to where you and your staff are able to rehearse various emergencies using your emergency drugs. Know their actions along with the route of administration. You and your staff should always know the location of your emergency drugs. Assign a staff member the role of reviewing your emergency drugs each month to prevent expiration of these drugs.

Check out the emergency drug tracker from Emergency Drug Resource (www.buildyourowndrugkit.com) as another way to assist you in developing an expiration prevention program. None of us know when our patient’s life may depend on our readiness — and having the proper emergency drugs.

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The purpose of this article is to provide information only, rather than advice or opinion. Nothing in this article should be construed as setting a standard of care or practice recommendations.

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You’ll find 450-plus exhibitors and a 300-plus speaker lineup that includes crowd favorites Gordon Christensen, the Madow Brothers, Loretta LaRoche, Laney Kay and Roger Levin.

Other highlights

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- Healthy Living Pavilion: Have lunch with a registered dietitian and learn how to eat healthfully — while earning C.E. credit, plus there are many other valuable courses.
- Dental Management of Sleep Apnea: In one-hour sessions throughout the day, learn to work with sleep apnea patients.
- Yankee Boardwalk: Kick back with your favorite beverage, light fare, and upbeat music at a free, family-friendly event open to everyone, Thursday, Jan. 31.
- Friday Night Laughs: Share some giggles with colleagues, friends, and family when Kathleen Madigan takes the stage Feb. 1.
- Dentaltown: Discover new ways to implement technology in your office from your fellow dental professionals.
- RDH @ YDC: For the first time, the experts at RDH Magazine and RDH Under One Roof bring their continuing education sessions and other events to Yankee.

Check out educational offerings in more detail, get hotel information and register at www.yankeedental.com.

(Source: Yankee Dental Congress)
4-Day Ridge Augmentation Hands-On & Live Surgery in Los Angeles with Dr. Sascha A. Jovanovic

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Case report: ‘unidentified dental implant’ restoration

Dealing with existing implants of unknown origin is becoming more common in globally mobile society

By Edward Hoodfar, DDS

Ever since screw-shape implants were introduced in the 1970s, thousands of different types of implants have been placed in people’s mouths. With growing frequency, implant patients change dentists for various reasons, especially in countries with high immigration, such as Canada and the United States. Patients present in our offices with implants that were placed in different countries and sometimes are very difficult to identify. Often there is no representation of the implant company in our geographic area, and ordering parts is simply unrealistic. One of these cases is presented here.

A patient presented in our office after losing the old crown on tooth #11 (Fig. 1). The patient could not find the crown, which was placed in Italy in the early 1990s. The patient previously visited other offices that could not offer her any solution except the replacing of the implant. We tried to identify the system by going on the Internet and searching forums and websites, but we had no success (Fig. 2).

We decided to use the [Stomatotech] G-Cuff system for this case, which we usually use for implant bridges. The abutment was unscrewed, and we measured the size of the abutment with the special G-Cuff measuring tool. After determining the size of the cuff, we chose the correct one from the kit. The G-Cuff was placed, and the abutment was screwed back (Fig. 3). The gold screw was fastened to the torque of 20 Ncm. A direct PVS impression was taken and sent to the lab (Fig. 4). A Zirconium coping was milled, following a porcelain esthetic finishing. The crown was placed, and only minor occlusion adjustments were needed. A control X-ray was taken (Figs. 5 and 6).

Conclusion

In spite of our difficulty in attempting to identify the implant, our patient was completely rehabilitated in less than a week. The G-Cuff kit is a must in every dental office because it is the only solution for UDI (unidentified dental implants), which recently have become more and more frequent. The patient was extremely satisfied with the result and the timespan of the treatment, and the reputation of our office was significantly raised.

References

3Shape LAIcare supports each customer

Did you know that when you acquire a 3Shape Dental System™, you automatically get 3Shape’s LAIcare™ package? 3Shape LAIcare represents a strong value for dental labs because it addresses support, training and upgrading — three critical areas for labs using digital technologies.

A future-secure investment
3Shape believes that a lab’s CAD/CAM investment should be long lasting and maintain high value. No matter the system, successful application of digital technologies does not end with purchase and installation alone. Ongoing training will help lab technicians exploit the full potential of their system’s many functionalities.

Every lab should be backed by immediate and efficient support, preferably provided in the client’s local language, to ensure optimal uptime and guard against delays in services. Finally, labs should not have to worry about their software’s ability to compete with newer systems. By directly addressing all of these concerns, 3Shape’s LAIcare package is designed to protect a lab’s CAD/CAM investment and help ensure their on-going and future success with digital dentistry. Labs can do what they do best and let 3Shape worry about the rest.

Annual releases
3Shape’s LAIcare is also designed to help labs stay competitive in an industry influenced by continuous technology changes and increasing regulatory demands. Every year, 3Shape’s global innovation center, with more than 150 developers, creates a new, major 3Shape Dental System software version — incorporating the accumulation of the previous year’s ongoing market research, direct requests from labs and interaction with dental professionals.

Ownership of annual system releases, plus all minor updates, are included as part of the 3Shape LAIcare package. Releases and updates include new functionality, tools, more indications, added libraries and beneficial interfaces to third-party systems. The system upgrade concepts built into LAIcare ensure that a lab’s 3Shape system continually grows stronger and more versatile rather than older.

Training, competence development
Ongoing training will help lab technicians exploit the full potential of their system’s many functionalities. The 3Shape Academy provides access to training initiatives, including online webinars, extensive learning materials and selected hands-on training courses. The power and available features in 3Shape’s Dental System increase every year, and the 3Shape Academy ensures that 3Shape’s users have the opportunity to keep up to date.

Support and service
As a part of their LAIcare package, all 3Shape users are entitled to local support from their 3Shape representative. 3Shape boosts its first-line reseller support network with its own second-line support force of more than 30 in-house experts offering support in more than 12 languages. 3Shape’s support teams work daily from five different Support and Service centers strategically placed throughout the world.
Website features top educators on demand

Dental Tribune Study Club (www.dtstudyclub.com) has partnered with xpAPce, a new online dental C.E. company, to offer branded lectures and modules that are procedurally specific for improved patient outcomes and reduced risk.

Dennis Tarnow, DDS, on ‘Periodontal and prosthetic management of furcated teeth’

Among the first modules offered through this partnership is a series of presentations by Dennis Tarnow, DDS, renowned lecturer, scholar and teacher, who will present Periodontal and prosthetic management of furcated teeth. Here is an overview of the session:

Long before there were implants, and long before treatment planning shifted away from treating compromised teeth with guarded prognoses, clinicians needed to develop techniques to deal with less than optimum situations. Roots were removed, teeth were prepared differently, and accommodations were made to account for weaker abutments. The decision-tree of how to approach teeth with furcation problems remains as valid today as it was years back. Perhaps even more valid. Not all patients are surgical candidates, in part because more patients than ever are living with compromised medical conditions that might preclude dental surgery. The list of conditions that might rule out surgery is ever-growing, including anti-coagulants, radiation treatment and bisphosphonates.

There are times when the dental professional does not have the luxury of gaining the many benefits from osseointegration and simply needs to save a compromised tooth to support a prosthesis.

That is why this single module of three lectures, provided by one of the top clinicians in dentistry today, is so valuable — both as a review and as a reminder of what can be done with compromised teeth, what can’t be done, and how to best approach these clinical situations going forward.

XPquared: online dental community

In addition to posting monthly courses on the Dental Tribune Study Club website, www.dtstudyclub.com, xpAPce will use a unique format to provide e-learning for the dental profession: a 24/7/365 dental community where courses may be taken anytime it is convenient for the learner.

First-time users should register online at the website www.2.virtualevents365.com/xpquared; then be sure to visit the xpAPce eLearning booth in the site’s “Exhibition Hall.”

Unusual name, expert insight

The company’s name, xpAPce, is an abbreviation derived from the phrase: eXPert APproved Continuing Education. An international committee of academic scholars vets all of the courses.

The company invites you to visit the online, 24-hours-a-day convention at www.xpapce.com to see a full listing of all its courses and modules.

(Sources: xpAPce, XPquared and Dental Tribune Study Club)
New dental needles are triple-beveled and include a ‘guide’ arrow

Mydent International introduces DEFEND Dental Needles

Mydent International has introduced Dental Needles, the latest in its line of DEFEND procedural products. To protect dental professionals, these needles specify lot No., size and have a sterile seal on each individual casing.

DEFEND Dental Needles are triple-beveled and feature an arrow indicator to help orient the bevel position during injections.

Constructed of a stainless steel with polypropylene hub with aluminum insert, the needles are siliconized to help ensure a gentle insertion into tissue for minimal discomfort. In addition, the pre-threaded plastic hub facilitates a straight attachment to the syringe, creating a secure fit.

Request samples

Licensed dental professionals are able to request samples for their office by emailing samples@defend.com. DEFEND Dental Needles are designed for use on standard 1.8 ml dental syringes and are color coded for easy diameter identification.

Available through most dental dealers, DEFEND Dental Needles are packaged 100 units per box.

Mydent International is dedicated to fully maintaining its brand promise: Provide the healthcare professional with the highest quality infection control products, disposables, preventatives and impression materials at affordable prices, supported by superior service and 100 percent customer satisfaction. The company’s slogan is "DEFEND. Works Better. Lasts Longer. Costs Less."

For more information on Mydent International and the DEFEND brand of products, call (800) 275-0020, or visit www.defend.com.

(Source: Mydent International)
Accidental discovery leads to 601 new patients in one week

Turn your front-office staff into your strongest marketing asset

By Jay Geier

Odds are your practice is suffering because of a blind spot that I guarantee you’re not aware of. A blind spot that is costing you $5,000 to $54,000 a month (maybe even more). A blind spot that, if removed, could boost your new patients by 20-50 percent, maybe even as much as 100 percent.

Sandwich board gets attention, but doesn’t close appointments

It all started about 15 years ago. I was vice president of marketing for a large private practice in Georgia. My sole responsibility was generating new patients, and my livelihood depended on it. I employed every imaginable tactic to get new patients — screenings, health fairs, referral programs, contests, magazine ads, newspaper and yellow page ads — just to name a few. I think I even wore a sandwich board and waved to drivers passing by at one point. It was never a question of whether or not my efforts were successful. They generated hundreds of calls every month, but the hard-earned calls just weren’t translating into new patients.

As you can imagine, this was a beast that had to be tackled. So I rolled up my sleeves and started sinking my teeth into it to figure out how to close the huge gap that was negating every marketing dollar spent and costing the practice thousands of dollars a day. I was able to use our practice as a learning lab. I worked day in and day out to discover the blind spot and figure out how to get rid of it. I knew I had cracked the code when the calls started translating into booked appointments and our staff set a practice record, scheduling 601 new patients in one week.

Turn your largest expense into your greatest investment!

To eliminate the blind spot in your practice, it doesn’t require an additional investment. It doesn’t require a new source of new patients. It requires an open mind because it almost seems too simple to be true. The secret lies in your telephone and your team, specifically your front-desk team. Both are investments you have already made, but they are not being leveraged to their peak performance potential.

No doubt your staff is courteous and helpful to everyone who calls your office — and while that’s a good thing, it’s simply not good enough. In fact, their courtesy is probably resulting in lost new patients. And lost new patients means lost money. For example, let’s say your average new patient is worth $1,500. Then one lost would cost you $1,500, five lost would cost you $7,500, and 15 would cost you $22,500. And that’s just one month’s worth. Imagine the impact of that over an entire year or how the impact would increase drastically if your patient value is higher.

Being courteous and helpful are not praiseworthy qualities if your staff doesn’t produce a profitable result. Unfortunately, when people call your office to book an appointment, your staff either doesn’t close or only closes 30-60 percent of the calls. For every $5,000 that is lost, you lose out on $25,000. And the $25,000 that isn’t lost could be invested in other qualified and trained talent.

Not knowing this could cost you tens of thousands

If you are among the majority of dentists who are spending money to market your practice you are absolutely not an exception. In fact, the reason for recognizing this blind spot and taking action to eliminate it is even more compelling because you are investing thousands of dollars, maybe tens of thousands, to get your phone to ring. And if the phone rings and it’s a shopper and the shopper doesn’t translate into a new patient, you might as well take every dollar, one by one, and flush them down the toilet.

Revenue-producing dream team

It takes a lot of skill — and an open mind — to scrutinize your practice to create positive change. It takes even more talent, knowledge and a gift for teaching to work with your staff on the fine points of the changes needed to take your practice to the next level, and way beyond. But it’s worth it and it’s a win-win.

Your staff can be one of your best and most profitable marketing tools if they are trained and you leverage them correctly, but if not, they could cost you thousands.

Create a plan to get your staff trained.

Talented employees want training. They want to perform better and contribute to your practice’s growth and success. If you have someone who doesn’t, they shouldn’t be on your team.

‘Being courteous and helpful are not praiseworthy qualities if your staff doesn’t produce a profitable result.’

JAY M. GIEIER is president and founder of the Scheduling Institute. He helps his clients reach new levels of success and create a lifestyle they dream of — using their practice as the vehicle. He has a unique ability for getting results in a practice by leveraging its current resources, with a primary focus on getting the staff to take more ownership and responsibility and teaching them how to produce results. To find out today how your staff is performing with new patient calls, see www.schedulinginstitute.com and click on “Take the 5 Star Challenge.” Call the office toll-free at (877) 317-6514 or send Geier an email at Jay.Geier@SchedulingInstitute.com.

Tell us what you think!

Do you have general comments or a criticism? Is there a particular topic you would like to see in Dental Tribune? Let us know by emailing feedback@dental-tribune.com. If you would like to make any change to your subscription (name, address or to opt out) please send an email to database@dental-tribune.com and be sure to include which publication you are referencing.
Dentists can now use 3Shape’s TRIOS® digital impression solution for their implant abutment cases. TRIOS captures implant positions and soft-tissue emergence profile in a unique dual-step workflow, thereby allowing optimal clinical and esthetical results. Based on the TRIOS digital impressions, 3Shape labs can directly design sophisticated digital implant models, customized abutments, and the final crowns in a straightforward and integrated workflow that is both easy and patient-friendly.

3Shape, a technology leader in 3-D scanning and CAD/CAM software for dental applications, announces its latest breakthrough innovations for implant work. With 3Shape TRIOS, dentists can now capture single implant positions using autoclavable scan bodies supporting a wide range of implant systems.

Implant cases made easy
For dentists, digital impression-taking with 3Shape TRIOS represents many advantages. The straightforward workflow replaces conventional implant impression-taking which traditionally can be time-consuming, error-prone and cumbersome. Furthermore, with TRIOS digital impressions, dentists can save time and money by skipping the extra steps involving custom tray production, shipping and handling by the lab.

“Scanning with 3Shape TRIOS makes implant cases easy. It allows me to capture not only the implant positions, but also the soft-tissue,” said Dr. Simon Kold, Herning Implant Center. “By adding scans of the soft tissue emergence profile, I can give my lab detailed information that allows them to optimize the fit and esthetic qualities of the customized abutment and final restoration. This is great for clinical and esthetic results while boosting patient satisfaction.”

Labs: new implant service options
With TRIOS, labs can receive the digital impression minutes after scanning and immediately start designing the digital implant model, the customized abutment and the crown. The TRIOS digital implant impression, 3Shape’s Model Builder™ and its Abutment Designer™ software come together in a fully integrated workflow.

3Shape’s Model Builder™ CAD/CAM software enables labs to design digital models for implant cases. Based on the software’s implant position detection, users can virtually add interfaces for implant analogs, including glue-in analogs, directly in the model design.

3Shape TRIOS is currently available in Europe and is expected to be launched in North America and other selected markets in late 2012.

About 3Shape A/S
3Shape A/S is a Danish company specializing in the development and marketing of 3D scanners and CAD/CAM software solutions designed for the creation, processing, analysis and management of high-quality 3-D data for application in complex manufacturing processes. 3Shape’s flexible solutions empower dental professionals through automation of real workflows, and its systems are applied in thousands of labs in more than 85 countries worldwide, putting 3Shape technologies at the peak of the market in relation to units produced per day by dental technicians. 3Shape boosts its first-line distributor support network with a second-line support force of more than 30 in-house experts placed in five support and service centers strategically placed around the globe. For more information about 3Shape, please visit www.3shapedental.com.

(Source: 3Shape A/S)
INDUSTRY NEWS

New crown-and-bridge material is fast

**VOCO Structur 3 temporary material: Nano-filled, quick-setting, strong — with fast ‘wipe-and-go’ technology**

VOCO is introducing Structur 3, a new temporary crown-and-bridge material for the quick fabrication of strong and esthetic provisional crowns and bridges (short term and long term), inlays and onlays, veneers and temporary posts.

With Structur 3, VOCO is using its advanced nano technology to create strength and esthetics. One of its biggest advantages is the ‘wipe-and-go’ effect. Structur 3 has a very smooth surface with a minimal oxygen inhibition layer and no longer needs to be polished. All it takes for the clinician to achieve a brilliant gloss is to wipe off the temporary cements with alcohol, and they are done, saving plenty of polishing time. Structur 3 has a natural looking fluorescence and outstanding color stability.

Structur 3 is economical, with a quick introral setting time of only 45 seconds, which is half the time of most other materials. The 1:1 mixing ratio allows for smaller tips and makes “bleeding” of material before changing mixing tips obsolete, resulting in up to 20 more units out of each cartridge compared with 10:1 and 4:1 products.

The nano technology used in Structur 3 leads to a high fracture resistance and compressive strength of more than 500 MPa, making the material ideal for long term temporization cases.

Structur 3 is available in 50ml 1:1 cartridges, fitting every impression material dispenser or in small 5ml automix QuickMix syringes in eight VITA® matching shades (A1, A2, A3, A3.5, B1, B3, C2, Bleach).

(Source: VOCO)
Aribex®, which describes itself as the worldwide leader in handheld X-ray technologies, has completed production of its 10,000th NOMAD® handheld X-ray system. Aribex celebrates the demand of this technology, as dental offices increasingly prefer the versatility and improved patient care offered with the use of the handheld X-ray.

“We’re proud that the NOMAD has been so widely accepted in the market that we’ve reached this 10,000-unit milestone,” said Ken Kaufman, president and CFO of Aribex. “We’ve worked very hard to get to this point, and we cannot thank our customers enough for their continued patronage and support. We’re looking forward to many more exciting product achievements in the future.”

In celebration of the 10,000th unit, Aribex participated in the Wasatch Wellness 10K/5K/1 mile run held this summer in Provo, Utah. Race proceeds helped benefit the Provo Canyon Behavioral Hospital and mental illness patients who actively pursue increased behavioral wellness and seek the return to a normal routine in life.

Eighty-six employees, family members and friends participated in the event, with nine of them carrying NOMAD devices during the competition and 10 of them winning medals in their respective races and age/gender categories. Aribex also won the Corporate Cup Challenge for the most participants.

Aribex is donating the 10,000th NOMAD to a humanitarian organization.

“Since our company’s roots are based on humanitarian efforts, we thought it appropriate to donate this historic unit to an organization that works among those with exceptional needs,” said Kaufman. “We’ve also seen that dental offices using the NOMAD have greater opportunity for humanitarian outreach, due to the portability of the NOMAD.”

Unlike the conventional wall-mount and portable X-ray systems, the NOMAD handheld devices from Aribex are lightweight, rechargeable (battery-powered), and can go anywhere. The NOMAD has rapidly become the X-ray device of choice for dental professionals around the world. Because of its handheld nature, the NOMAD has been found to be of great value outside the traditional dental environment. Units have been taken on countless service missions around the world, treating those who previously have not had such access to care. Recent missions have gone to the Philippines, the Dominican Republic, Haiti, and Mozambique.

In addition, the NOMAD has been used in forensic victim identification following natural disasters such as the 2004 Indian Ocean tsunami and last year’s earthquake in Fukushima, Japan.

About Aribex
Aribex is the worldwide leader in portable and handheld X-ray products. Aribex NOMAD X-ray systems are now in use in clinical, remote and mobile facilities throughout the world, from the finest professional offices to humanitarian missions reaching underserved populations who desperately seek care. The NOMAD significantly decreases costs and provides hundreds of safe, high-quality images for dental and veterinary applications on a single battery charge. For more information, visit www.aribex.com.

(Source: Aribex)
Shade matching device uses color LEDs

Rite Lite 2 Shade Matching instrument simulates multiple lighting conditions

The Rite Lite 2 Shade Matching instrument is a low cost device that incorporates Tri-Spectra LED technology to simulate multiple lighting conditions that aid in the shade matching of teeth, porcelain and composite dental restorations.

Rite Lite 2 has three modes of lighting for shade taking:
1) Color corrected north white daylight at a color temperature of 5500 Kelvin, considered a standard in shade measurements.
2) Incandescent warm room light at 3200 Kelvin, found in many indoor environments, and
3) Ambient room light at 3900 Kelvin. This combination of room light and daylight is used to further verify shade.

Powered by 12, multiple-color LEDs

The Rite Lite 2 is powered by 12 color-matched LEDs, two AA batteries and has a voltage regulator and low battery-level indicator to assure constant light intensity.

This instrument is intended for use by dentists, dental ceramists and dental laboratories.

For additional information, contact AdDent at 43 Miry Brook Rd., Danbury, Conn. 06810, or phone (203) 778-0200, extension 104. Find AdDent online at www.addent.com

(Source: AdDent)

Impression material adds ‘super-fast set’

Aquasil Ultra Smart Wetting Impression Material also is known for its high tear strength and very low contact angle

DENTSPLY Caulk has expanded the Aquasil Ultra Smart Wetting® Impression Material portfolio to include “super fast set.” Aquasil Ultra Super Fast Set material is available in all viscosities and packaged in a convenient two-cartridge 50 ml or DECA™ 380 ml refill. Aquasil Ultra Super Fast Set formula is optimized to offer an adequate intraoral work time of 35 seconds and Super Fast mouth removal time of two minutes and 30 seconds. Aquasil Ultra Smart Wetting Material is indicated for all dental impression techniques.

Unidose system for easy wash material application

Aquasil Ultra Smart Wetting Impression Material is known best for its unique combination of high tear strength and very low contact angle. Use with B4® Pre-Impression Surface Optimizer for excellent detail with less stress. A complete portfolio of five tray and three wash material viscosities are available in three set-time options. Delivery systems include the digit® Targeted Delivery System, a unidose system for easy wash material application, 50 ml and 380 ml cartridges.

To learn more visit www.aquasilultra.com or call (800) 532-2855 or call an authorized DENTSPLY distributor.

Meet DDS Dan

Meet DDS Dan — part dentist, part fixer and part detective. He is an everyday guy who has all the answers and can solve composite problems for you. Follow D.D.S Dan on Twitter, Facebook and YouTube as he tackles some of the most challenging restorative cases and identifies ways in which TPH3 composite from DENTSPLY Caulk can solve many of your composite challenges. Meet DDS Dan today at www.tph3.com/dds_dan.

(Source: DENTSPLY Caulk)
Recycling dental waste into marketing

TerraCycle, an upcycling and recycling pioneer, runs a free recycling fundraiser to collect what otherwise would be non-recyclable oral-care waste. To keep more of this non-recyclable material out of landfills and help dental offices engage and market to local communities, it offers local public relations support to locations that sign up to collect this waste.

Becoming a community drop-off point can generate foot traffic and attract new patients. By collecting previously non-recyclable toothbrushes, toothpaste tubes, toothpaste caps and floss containers, dental offices can also offer their patients and local community an easy way to earn extra funding for local schools or charities.

Anyone in your office can sign up at www.terracycle.com. Print informative fliers, set up a collection bin in the waiting room, and when the box is full, print a pre-paid shipping label to send it all to TerraCycle (six-pound minimum).

For each piece of packaging received, the office earns two points, which can be put toward buying a specific charity gift or converted to cash and given to a local charity of their choice. TerraCycle will recycle the collected packaging into plastic items such as park benches, recycling bins and plastic lumber.

TerraCycle’s Oral Care Brigade is sponsored by Colgate.

Colgate Oral Care® Brigade

What kinds of packaging are acceptable?
TerraCycle accepts any brand of used toothpaste tubes, toothbrushes and plastic toothbrush packaging, excluding cardboard.

What do I need to sign up?
You need to provide: 1) a contact person to oversee the brigade at your location; 2) a valid email address; and 3) a valid mailing address.

If you choose to redeem points toward a non-profit or charity of your choice, you will need the mailing address and contact information for the 501(c)3 charity and its Federal Tax ID number.

If you do not have your own charity, you can choose to redeem your points toward one of TerraCycle’s charitable gifts.

Do I have to pay for shipping?
No. You will be able to print pre-paid UPS shipping labels from the TerraCycle website through your online account. That’s how your Colgate Oral Care Brigade collections get back to the TerraCycle factory to be up-cycled into TerraCycle eco-chic products.

You win, TerraCycle wins, and the environment wins.

Is there a limit to how many pieces of packaging I can send in?
No, but because of the popularity of the Oral Care Brigade, to earn points on a shipment it must weigh a minimum of six pounds (about 200 items). For additional information, please see the “Shipping Instructions,” which you can download from the “Resources” tab located on your account.

(Source: TerraCycle)

Visit www.terracycle.com to join the Colgate Oral Care Brigade. Photos by www.dreamstime.com
Human hand is starting point for every instrument’s design

At NSK, handpieces are viewed as an extension of the practitioner’s hand

By Robert Selleck, Managing Editor

For years, NSK dental handpieces have had a strong base of devoted users in the United States and Canada who are attracted to the company’s reliable, user-friendly performance and reputation for quality. A word-of-mouth advertising strategy combined with highly targeted customer relationships has worked well for the organization. But the strategy has also meant that there are many dental professionals who still aren’t sure about what makes NSK so different in the handpiece market.

During the past year, that’s quickly been changing.

The dental equipment manufacturer, founded in 1930 in Japan, is raising its U.S. and Canadian profile in a big way, perhaps most tangibly to date by the May 2011 opening of its newly constructed North American headquarters in Illinois. The facility includes a showroom, training facility, expanded warehouse space and a larger parts and service center.

“The company made the decision last year to increase its investment in North America in 2011,” said Rob Gochoel, NSK Dental marketing manager — North America. “We’ve also added office and technical-service staff, and an internal team of representatives who will be able to work directly with a greater number of dental practices.”

The company is also expanding its distributor relationships. As a whole, the efforts is enabling NSK to provide information about its unique business model to most of the dental practices in North America.

The company’s efforts also include an expanded dental convention presence, which began with the 2011 Greater New York Dental Meeting, so practitioners are more easily able to hold an NSK handpiece and experience firsthand what has enabled the company to become one of the top handpiece manufacturers in the world.

“We’re making the investment in an opportunity to connect with more customers,” Gochoel said. “Not only will we be able to handle customer questions and inquiries much faster, but we also will be able to further develop a sense of loyalty by developing more personal-relationships with doctors.”

Innovation based on input

Close relationships with its customers are critical to the company because that’s what has driven its global growth for more than eight decades. “Everybody is pretty excited,” said NSK Dental President Micco Stiehle. “We have very good feedback from the market so far I am looking forward to working with dental professionals and learning more about what they want from us because that’s where we’re coming from. We need to understand what we need to be doing to be successful in the U.S. And that means providing products that fit to the customer demand.”

NSK is able to respond quickly and specifically to localized needs because it maintains complete in-house control of the manufacturing process. An example of how such a philosophy translates into real products is the NSK S-Max Pico, which has the smallest head and neck size of any handpiece on the market.

NSK built S-Max Pico in response to requests from practices in Asian markets with higher numbers of patients with smaller-than-average mouths. Interestingly, a bonus realized by the company’s willingness to address this need is that the S-Max Pico has gone on to also receive high interest from pediatric practitioners throughout the world.

“We know there are other needs out there that aren’t being met,” Gochoel said. “Want to provide options based on what customers are asking for. We love to solicit feedback through our office at (888) 675-1675 and through our microsite at www.nskdental.us.”

To control quality, virtually every step of the process is kept in-house key to the company’s ability to develop equipment in direct response to customer need is its commitment to controlling the entire manufacturing process. Nearly 90 percent of the 17,000-plus parts that go into the creation of its handpieces are manufactured in-house.

In addition to supporting its market responsiveness, NSK’s in-house philosophy enables it to relentlessly control quality at every step of the development, testing and manufacturing process. “Quality is really the top priority for us,” Stiehle said, “especially for Eiichi Nakanishi [NSK president and CEO].”

Nakanishi confirmed that statement: “Since the founding of the company,” he said, “we have adhered to very strict quality controls to make sure our products earn dentists’ satisfaction. We have strong policies on manufacturing almost all components in-house. Currently about 90 percent of the mechanical components, including electric micro-
motors and high-speed ball bearings, are manufactured in-house. No other competitors can make ball bearings and micromotors in-house like we do. This is one of our biggest strengths and competitive advantages."

Based in Japan, but frequently traveling the world, Nakahashi described his core role at NSK as being to ensure the global organization has a strong, motivated team in place with a clear understanding of what it takes to delight customers.

“We have the engineering excellence needed to enable dental professionals to make their dream products real,” Nakahashi said. “We want to listen to the voices of dentists in order to develop very useful and wonderful products.”

Stiehle said that responding to specific customer demand isn’t limited to a product’s purpose and function. “It’s not just that we offer a product in every category of dentistry from a clinical point of view,” Stiehle said. “It also means offering a range of price points.”

Cost sensitivity also drives the company’s focus on providing one of the largest selections of coupler adapters available to make it easier for practitioners to test-drive and purchase an NSK handpiece. “Our intent is to make it as easy as possible to integrate an NSK handpiece into the practice,” Gochoel said. “By being compatible with virtually all competitor coupler systems, we eliminate the need to buy a lot of additional couplers or incur the expense of retrofitting all the operatories. It’s just one more example of a smart, customer-centric focus.”

Rounding out the commitment to quality assurance, pricing options and responsiveness is awareness that the final customer is the patient. “I am a strong believer in the need to be aware that we are a medical device company, and that with that comes a huge responsibility, not just in terms of quality, but also comfort and safety of the patient,” Stiehle said. “When I am sitting in the dentist chair, I want to make sure that I am worked on with the best product out there. That’s what is most important to us: safety and comfort of the patient.”

Customer feedback feeds everything

Lots of companies like to talk about customer feedback. NSK engineers already are looking into some new ideas based on multiple inquiries the NSK team has received from customers. “I have heard how difficult it was to use a standard or even miniature handpiece for restorative work on patients with smaller mouths, especially when working on posterior teeth. Having a decent amount of room to see and work in is critical when you’re trying to be as minimally invasive as possible and leave as much healthy tooth undisturbed as you can.”

Industry game changer

To address the need, NSK engineers and product developers went to work on a concept they called an ultra-miniature handpiece. “It’s more than 20 percent smaller than the smallest miniature out there,” Gochoel said.

Coming up with the new device wasn’t just a question of taking a standard system and making everything smaller. Many of those existing parts were already about as small as the materials and demands on them would allow. So, in many ways, the design team had to start from zero — rethinking the engineering but keeping the core goals the same: durability, ability to stand up to frequent autoclave sterilization and delivery of as much torque as possible. The result, Gochoel said, is an industry game changer.

Growing global interest

“The S-Max Pico has been capturing a lot of attention at the major dental meetings,” Gochoel said. “We’ve been taking a lot of orders from dentists who don’t even feel the need to test it in the operatories. At the other end of the spectrum, NSK also has recently launched a line of premium handpieces that incorporate its micro-production technology while also setting a new benchmark for durability and performance. According to NSK, the Ti-Max Z series handpieces perform at a remarkably low noise level with virtually no vibrations — two requests the company had frequently heard from clinicians looking for fewer distractions and increased patient comfort. “The two products together definitely announce NSK as a key player in the industry, one who knows how to listen to customers and quickly get finely crafted, durable products to market based on that input,” Gochoel said.

More innovations expected

As the company increases its presence in the North American market, with high-visibility booths at the bigger trade shows and a growing distribution system, it’s hearing more from customers in the U.S. and Canada. “It’s all about making dentists more productive,” Gochoel said. “Coming up with improvements that make dentists’ lives easier — and make their patients more comfortable.” NSK engineers already are looking into some new ideas based on customer feedback. The result is that the company keeps setting the bar for itself higher — while removing limits on what its customers are able to imagine.

Contact NSK Dental at (800) 585-4675, or info@nskamericacorp.com. Its website is www.nskamericacorp.com

(Source: NSK Dental)
Smaller, smarter handpiece technology. Now available in the U.S.

Use your smartphone to learn more.
Japanese engineering is celebrated for making our favorite technologies smaller and perform better. Now, that smaller, smarter technology is available for your practice – with the new S-Max pico handpiece from NSK. It features the world’s smallest head – giving you easier access for hard-to-reach molars and pediatric cases. And, like other NSK electric and air-turbine handpieces, the S-Max pico offers innovative features such as super-slender styling, cellular glass optics, our patented Clean Head technology for enhanced infection control, and a cartridge you can simply replace yourself.

Ask how you can get an S-Max pico at your favorite factory.

Introducing

S-Max pico

The world’s smallest head.

*Great handpiece: made as of 11/2011

Come see the S-Max pico, your next “must have,” at:

2012 ADA Annual Session
San Francisco, CA
NSK Booth #5444
October 18-20, 2012

To find your distributor:
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We're huge fans of underground art.

We know it's the delicate art you create under the surface that allows the restoration above the surface to last a lifetime. When we created our Emtadent® Access Burs and V-Taper™/2 Taper Rotary Files, we were inspired by you, the artisan who values them. SS White®'s intelligently designed endodontic system preserves the art of masters—viz. our art at the heart of the math.

We'll help you create your masterpieces with healthier roots that are in balance. Longer-like restorations. More satisfied patients. And a practice that continues to grow.

The text respected by artisans like you is kind.

"All doctors are not equal, and neither are Emtadent® Burs and V-Taper™/2 Taper Rotary Files. Preservation of the heart of the tooth, yes, and art at the heart of the math. Preservation of healthy roots leads to longer-lasting restorations."

— Dr. Eric D. Hanauer, Pennsylvania

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