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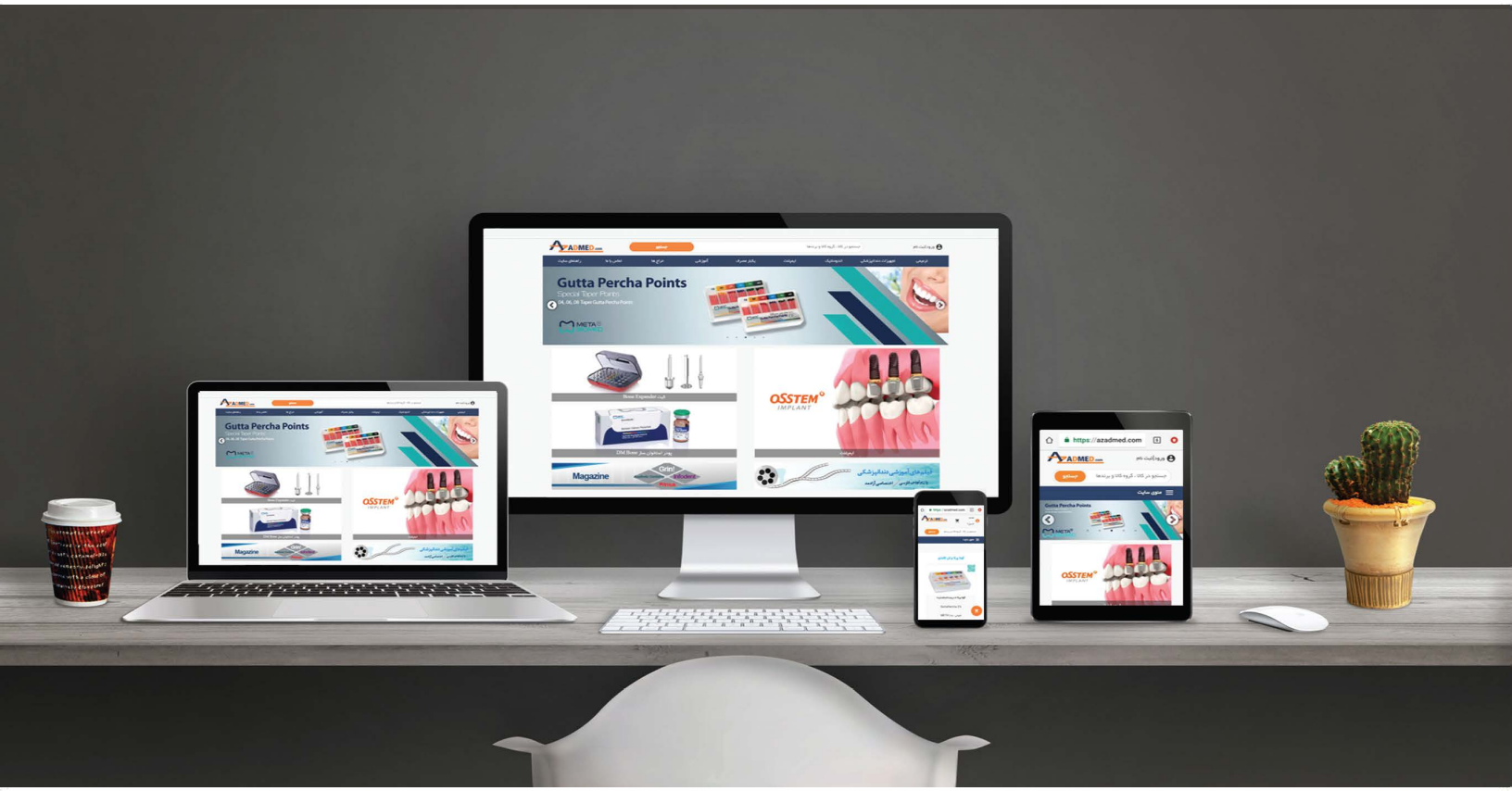

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Aesthetic Dentistry

TECHNOLOGY AND TRENDS IN PR AESTHETICS • VOLUME 15 ISSUE 3 • FALL 2016

Celebrating 40 Years!

The 2016 Arrowhead World Symposium in review.

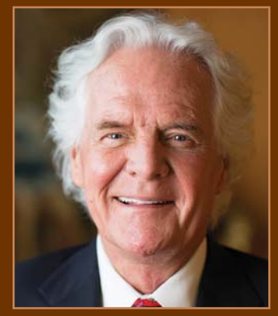
Implant Sensei

Dr. Downs's system for implant mastery.

Edentulous Solutions

Enhanced treatment options that drive production.

Active Leadership



The Secret to a More Productive Practice.

Dentists often ask me, "What is the secret to a more productive practice?" This question reminds me of the poem, "The Secret of the Sea," by Henry Wadsworth Longfellow (1807–1882). In one of the poem's stanzas, Longfellow wrote:

"Wouldst thou,"—so the helmsman answered,
"Learn the secret of the sea?
Only those who brave its dangers
Comprehend its mystery!"

The above-referenced stanza is about experience and knowledge, but also about leadership. The answer to the "secret of the sea" invariably boils down to leadership and, as the poem reads, "Only those who brave its dangers comprehend its mystery." For too many dentists, the definition of leadership is one of position rather than one of action and persistence.

We had the opportunity to discuss leadership in today's dental practices last July at the 2016 Arrowhead World Symposium—an event focused on becoming more effective and productive leaders. Since one of the keynote speakers was a retired U.S. naval captain, the event had a decidedly nautical theme, which was "Take Command: Charting a New Course" (see "Anniversary Feature," *page 10*).

Over the two-day event, speakers shared a number of key insights that I believe have the power to transform any dentist into the kind of dynamic leader who stands out in terms of quality work and financial productivity. My presentation was entitled "The Helmsman." Some of you might wonder why I didn't choose a title like "The Captain" instead of "The Helmsman"—as the captain is probably most often associated with leadership in a nautical context.

The reason I chose the metaphor of the helmsman is because I believe it represents one of the most overlooked concepts related to leadership. For those who are not nautically inclined, a helmsman is the person who steers the ship. The helmsman holds the wheel and makes the necessary corrections to keep the ship on course and unimpeded by unexpected and changing currents. This is the person who translates the captain's vision into the daily actions that allow the destination to be reached safely and efficiently.

I owned a boat for many years, and during that time I acted as both captain and helmsman of the craft. This is how dentists should approach leadership in their practices—they should both set the course and take an active role in keeping to it. It isn't enough to have a vision of what you want your course to be, you must also take the wheel and translate vision into daily action.

Now, to be clear, I don't espouse micro-managing your team members. You shouldn't be doing the tasks and roles that you have delegated to your team. Quite the contrary, you should allow them to own the spheres of influence that their roles require, as long as they deliver the results that are needed to stay on course.

One simple exercise to ensure that your leadership style is equal parts vision and action is to do the following. Take out a sheet of paper and create two columns. In the first column, write down some phrases that represent key components of your vision (for the "captain" side). In the second column, write down actions required to stay true to that vision (for the "helmsman" side). Below is an example of this exercise, using a few common phrases that I've heard over the years:

CAPTAIN	HELMSMAN
1. Do more comprehensive cases	1. Present full arch cases twice a week (regardless of the patient's *assumed* ability to pay)
2. Improve recall patient activity	2. Set a goal with the team for the number of recall patients to be seen daily—and follow up
3. Improve team morale and effectiveness	3. Remediate or remove toxic personalities proactively

Notice how the lists in the two columns complement one another. Indeed, a great leader is equal parts vision and action. If you think a dental degree automatically bestows effective leadership skills on dentists, then your view of leadership is limited.

True leadership is a daily effort to take active measures that keep you and your team on course to reach your vision. It isn't an easy task, and at times it requires you to work at the edge of your comfort zone and beyond. Have courage! Put yourself in uncomfortable situations and the secrets of effective leadership will become second nature as your practice and your experience in dentistry inevitably continue to grow. ■

Aesthetic Dentistry
TECHNOLOGY AND TRENDS IN PRACTICE DEVELOPMENT & AESTHETICS • VOLUME 15 ISSUE 3 • FALL 2016

CONTENTS

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Don't Wait for Someday

After 33 Years, Melissa Gets the Smile of Her Dreams.

For as long as I can remember, I've had dental problems. I grew up in southern Alberta, Canada—where my dad was self-employed—as the fourth of six children. With so many kids at home, my siblings and I rarely had the opportunity to visit a dentist. Fortunately our neighbor was a dentist, and from time to time my parents would pay cash and my siblings and I would visit the dentist for cleanings and fillings. During those visits, the dentist had to do as much work as possible during one appointment for my siblings and me.

> The problems with my teeth weren't just cosmetic. I had headaches and my jaw popped and clicked . . . it was painful and annoying.

As my permanent teeth came in, I noticed that two of them grew in just behind two baby teeth. At the time, my older brothers and sister were wearing braces, so my parents couldn't afford braces for me as well.

The problems with my teeth weren't just cosmetic. I had headaches and my jaw popped and clicked. I actually had a delayed click—when I opened my mouth wide, my jaw seemed okay, but then it would click. My jaw locked up a couple of times, too. It was painful and annoying.

I played a lot of sports when I was young, so my jaw problems might have been due to repeated elbows to the face during basketball games, or from volleyballs hitting my face. Regardless of the reason, my jaw had trauma. In addition, I had small lateral incisors. My mouth was therefore very crowded in the anterior.

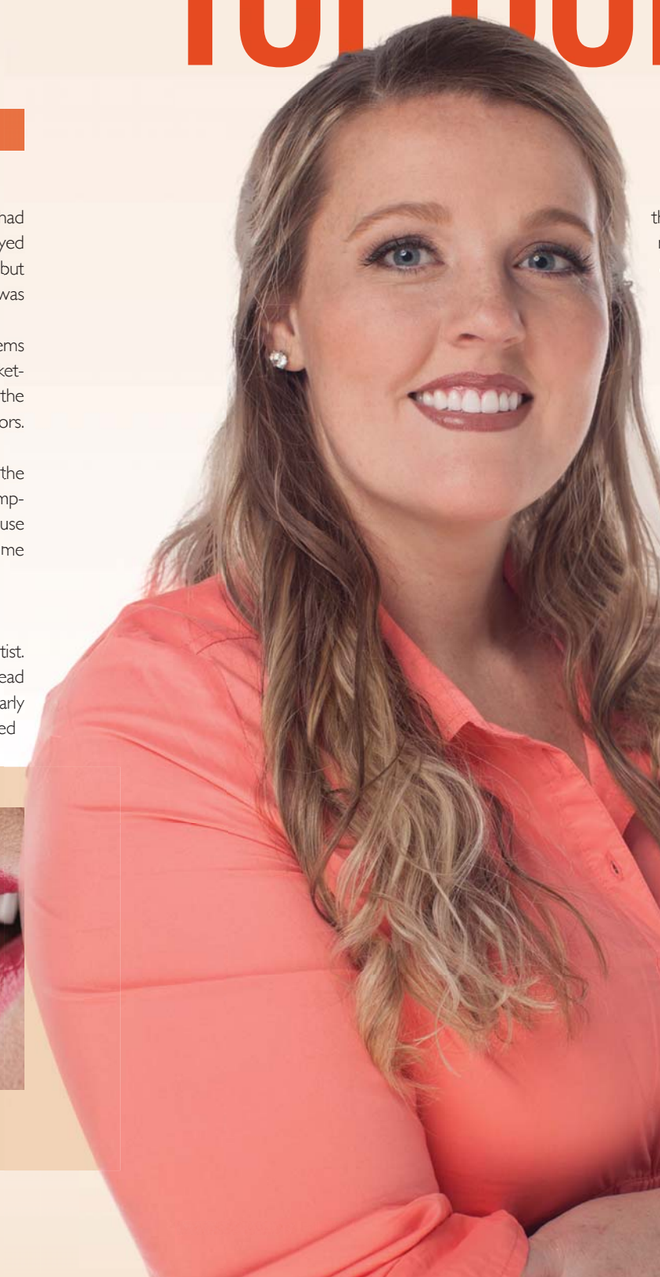
To help with these issues, the dentist in Canada extracted the two maxillary bicuspids on both sides of my mouth. The assumption was that my front teeth grew in behind the baby teeth because there wasn't enough room. The dentist also made a retainer for me to wear that pushed my front teeth forward.

THE ROOT OF THE PROBLEM

Because of my early experiences, I dreaded visiting the dentist. Unfortunately, that fear is not terribly unusual—many kids dread dental appointments. What is unusual, however, is how those early experiences shaped my life. When I was in high school, I decided that I wanted to help make other kids' dental experiences better than mine. So immediately after high school I worked toward becoming a dental assistant.

Unlike in the United States (where dental assistant requirements vary from state to state), in Canada, dental assistants must be nationally certified. So I started working at an oral surgeon's office and afterwards went to dental assisting school.

Once I had some dental assisting skills, I started working on my own teeth to try and correct some of the issues that had bothered me since childhood. I asked a dentist to help and he did some bondings on my laterals. Later on, I bleached my teeth and redid my bondings, but nothing gave me the results I wanted.

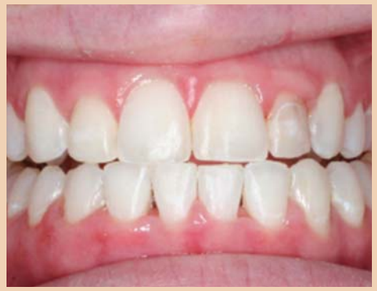


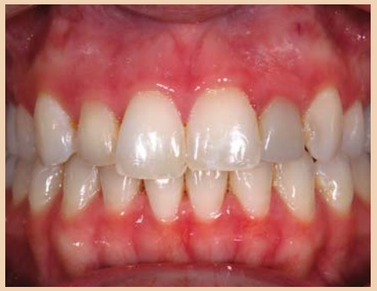
> Because the bondings were made at different times, I had four or five different colors in my mouth.

Because the bondings were made at different times, my teeth were varying colors—I had four or five different colors in my mouth. I was frustrated with the different colored bondings and the build-ups (which I was unable to bleach). I was also unhappy with the uneven spacing in my anterior teeth. Someday I hoped for a uniform, beautiful smile.

EARLY EFFORTS

With my dental assistant income, I was able to pay for braces when I was 25 years old. I hoped that getting braces would address the issues of crowding and anterior spacing, and ›





(Above, left to right) An early photo of Melissa's mouth, before orthodontics; Melissa's mouth before her full arch reconstruction; Melissa's mouth after her full arch reconstruction (2015).

Aesthetic Dentistry

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also the crossbite issues. So while I was in braces, I asked the dentist to open my bite slightly to help with my TMJ issues.

After correcting the spacing issues, I did additional work on my teeth, trying to create a smile that I liked. I made some E4D crowns to correct my peg laterals. One crown was a blue-grey crown because you don't really do E4D in the anterior. I also remade my lateral crowns after I had braces, but I was still unsatisfied with my smile.

MAKING A MOVE

By this time, I was working for a dental office in Las Vegas, NV, as a lead assistant. My responsibilities included patient care, supplies, ordering, problem solving, and more.

After getting married, I moved with my husband to Utah. Because I had worked in the dental industry for years, I was familiar with Arrowhead Dental Lab (conveniently located in Utah), so before the move, I reached out to them for potential employment opportunities. Fortunately, I got a job with Arrowhead, where I work today.

My current role is as a Doctor Relations/Technical Support Representative at Arrowhead Dental Lab. After working at Arrowhead, I learned that volunteers are sometimes needed for the continuing education (CE) courses that the Dr. Dick Barnes Group offers to dentists. Frequently, the CE class offerings include a full arch or full mouth reconstruction.

> I thought, 'Someday, when I have saved enough money, I will get my teeth completely redone.' And it has been the best thing that I've ever done!

Arrowhead usually has a long list of patients wanting to volunteer for these courses, but I decided to put my name on the list and hope for the best. I thought, 'Someday, when I have saved enough money, I will get my teeth completely redone.' And it has been the best thing that I've ever done!

My "someday" finally happened in June of 2015. I was prepped for a full arch reconstruction and cemented in September—one week before my 33rd birthday!

THE PROCEDURE

Dr. Jim Downs from Denver, CO, did my work during a CE course. Dr. Downs is experienced in full arch and full mouth reconstructions and he knew how to restore my mouth and give me the smile of my dreams. I had confidence that he would be aggressive enough to fix my crossbite, and also compassionate enough to leave me with some of my tooth structure.

Instead of a full mouth reconstruction, I had a full arch reconstruction. Dr. Downs opened my bite—probably half a millimeter—just on the upper arch. He didn't really need to open it for the Shimbashi (the distance between CEJ to CEJ on tooth numbers 8 to 25) to be perfect. He was able to correct those things on the upper arch and with braces. I opted for the strength of gold crowns in the back on my molars because of my bite.

Prior to the procedure, I was completely calm. I wasn't worried about the full arch procedure because I had witnessed it many times as a dental assistant. I also wasn't worried about having a group of people

(Above) Melissa in her role as a Doctor Relations/Technical Support Representative at Arrowhead's World Symposium in Park City, UT.

(the seminar participants) look in my mouth. In fact, despite having about 20 people peering at me and having suctions in my mouth and water in my nose, I fell asleep!

The whole process lasted about 2 hours and 45 minutes. Dr. Downs prepped me fast! Still, I was surprised how natural the temporaries looked and how even my smile became. No one could tell that my teeth were peg laterals. That's a big accomplishment!

Having peg laterals makes the two front teeth protrude a bit. I felt like I had "Bugs Bunny" teeth because the side teeth were so much smaller! So I was surprised at how even, straight, and perfectly aligned my teeth looked after the temporaries.

I had a White Wax-Up done in preparation for the temporaries. This is a 3D mold of my teeth that the dentist can adjust and sculpt to determine the proper amount of gum tissue. The White Wax-Up comes with a matrix, a transfer bite, and a clear plastic reduction guide to show which gum tissue needs to be reduced or sculpted.

I requested a few changes to my White Wax-Up for my teeth. I wanted to make my canines a little bit more predominant so they would look more natural. I also asked to change the arch form so that tooth numbers 7 through 10 would be more aligned. Once the changes were made, I was thrilled how the temporaries looked!

In the past, with all the composite fillings and the crowns that I had put on my front teeth, my gum tissue was always puffy. During the reconstruction, Dr. Downs made the gum tissue look perfect with the use of a CO_2 laser. It was painless! I didn't feel anything and it wasn't sore afterwards, either. It was just amazing!

The clear reduction guide removed the guesswork so that Dr. Downs could use a wax pencil and make adjustments exactly where he needed to make the zenith symmetrical. Once the gum tissue healed, it changed slightly, so he had to adjust a small spot.

In September 2015, Dr. Downs seated my crowns and adjusted the bite—again at Arrowhead Dental Lab. After Dr. Downs left Utah, he flew back to Colorado. The next day, I noticed that the bicuspid on my upper right was uncomfortable and Dr. Downs wasn't scheduled to return to Utah for a couple of weeks.

The tooth didn't actually hurt—it was just irritating. I could chew on the other side of my mouth without any problem, but it was sensitive on the right side.

To remedy the problem, Dr. Downs took a T-Scan® during a later course and made an adjustment. After I had that spot adjusted, it was heaven! Now I can chew food on either side of my mouth without any issues.

When doing a full arch reconstruction, doctors should always confirm that everything is symmetrical a week later, because there's still time to make adjustments and drop margins if needed.

THE FIRST REVEAL

After getting my temporaries, I visited my family in Montana. All my siblings and I met at my parents' cabin. Everyone was looking at me and asking what was different. Only my mom knew I was wearing temporaries. After seeing them, my mom decided that she wanted to have her teeth done, too! She was so impressed with how natural my teeth looked and how beautiful my smile was. She told me that I was glowing!

I didn't experience any problems while wearing the temporaries—no reactions to heat or cold, and none of the temporaries came off. My overall feeling during the restoration process was one of relief. The entire experience was great—from the timeline of getting things done, to having support through the process and adding my input for the outcome that I wanted. Dr. Downs understood what I wanted and made me feel valued and heard.

> My mom was so impressed with how natural my teeth looked and how beautiful my smile was.

At the time of printing, it has been about a year since I've had my teeth seated and I haven't had any issues with them. I don't have headaches, my jaw hasn't locked, and if I clench my teeth, I'm not aware of it. I probably will make myself a nocturnal orthotic, just to be safe, but everything feels great!

WHAT I'VE LEARNED

After working in the industry for many years, I was thoroughly prepared to undergo a full arch restoration. Still, I learned many things that may help others going through the process.

FOR PATIENTS:

1. ***Don't worry!*** My first suggestion is to relax and not worry. Although it may seem like a daunting procedure, it's not as difficult as you may imagine.
2. ***Do more than the Social Six.*** I strongly suggest doing more than just the front six teeth (also called the "Social Six"). I wanted a big, "Julia Roberts" smile. To accomplish that goal, we had to work on more than *(continued on page 40)*

ANNIVERSARY FEATURE ■ MICHELLE BILLETER-MAXFIELD

The 2016 Arrowhead World Symposium

Take Command: Charting a New Course

(Left) Peggy Nelson and Hernan Varas welcome everyone to the symposium at the Canyons Village resort.

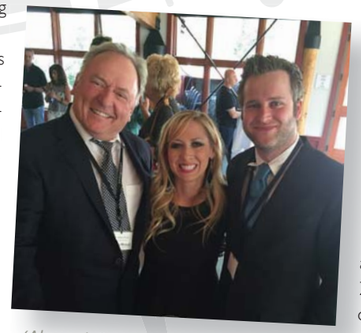
Are you in command of your dental practice? Do you feel like the captain of your practice, steering your crew towards success? Or are you drifting along without any specific port or course plotted? The 2016 Arrowhead World Symposium, held in Park City, UT, over two days in July, addressed the topic of leadership in today's dental practices. The symposium sought to instruct and inspire the attendees, who navigate the changing and sometimes challenging waters of the dental industry.

Peggy Nelson, Arrowhead Dental Lab's Director of Sales, organized the symposium as part of a celebration for Arrowhead's 40th anniversary. Participants included dentists who have used Arrowhead for more than 30 years. One participant, Dr. Johnny Øverby, traveled as far as 4,414 miles (from Tromsø, Norway) for the celebration and continuing education (CE) at the Canyons Village resort.

The theme of the symposium was "Take Command: Charting a New Course." Arrowhead's founder, Dr. Dick Barnes, often quotes the Scottish philosopher Thomas Carlyle (1795–1881), who said, "A person without a goal is a like a ship without a rudder." Dr. Barnes said he likes the quote because all dentists face a choice—they can definitively lead their practices, or they can just let the current pull them along.

In keeping with the nautical theme, speakers at the symposium discussed different aspects of leadership—all of which were designed to help participants steer their practices toward a more productive and successful future.

In addition to the CE, Arrowhead planned plenty of fun activities at the resort. Several participants played golf and enjoyed hiking in the mountains, and everyone rode the gondola to the evening events at the Red Pine Lodge at the Canyons Village. Changing Lanes Experience, a band of talented musicians, helped everyone celebrate late into the evening with a repertoire that got just about everyone onto the dance floor (see *photo, page 41*).



(Above, left to right) Dr. Johnny Øverby, Peggy Nelson, and Sondre Andreassen.

For those dentists and their families who couldn't attend the symposium, we missed you! The symposium included such speakers as D. Michael Abrashoff, The Passing Zone, Dr. Dick Barnes, and many others. There was simply too much great information to mention everything in our limited space, so we've selected a few of the symposium highlights, as follows.

THE CAPTAIN

After a welcome reception, the symposium kicked off with the keynote speaker, D. Michael Abrashoff. Abrashoff is the former commander of the USS *Benfold*, a U.S. naval destroyer. Abrashoff started his address by stating, "We are all leaders and we are all captains of our own ships. It's important to ask, 'How are we showing up for the people we are trying to influence?'"

Abrashoff was only 36 years old when the U.S. Navy selected him as commander of the USS *Benfold*. At the time, the USS *Benfold* was the worst performing ship in the Pacific Fleet. When he took command, the ship had cost United States taxpayers $1.2 billion. It was a relatively new ship, so it should have been a top performer, but instead, it was one of the worst performing ships in the Navy.

At a ceremony to change command of the ship, Abrashoff watched in silent dismay as the crew did something unprecedented—they booed his predecessor as he left. Determined not to repeat the fate of the previous captain, Abrashoff decided to make some powerful changes. He had assumed command of a ship with one of the highest turnover rates in the Navy—the retention rate for sailors on the *Benfold* was only 8 percent (the average retention rate in the fleet was 32 percent). The turnover rate was a serious indicator of a ship's overall success or failure.

(Above) D. Michael Abrashoff, former U.S. Navy captain, and Dr. Christopher Lauritzen. Abrashoff's keynote address focused on change management techniques.

Training a new sailor cost taxpayers approximately $55,000. Abrashoff knew that if he could retain sailors instead of training new ones, he could potentially save a lot of money and lead the ship to performing at or near the top of the fleet.

"We are all leaders and we are all captains of our own ships. It's important to ask, 'How are we showing up for the people we are trying to influence?'"

Although his goals were lofty, Abrashoff decided to start small—by focusing on one sailor at a time. He started by conducting one-on-one interviews with each of the sailors. ›

7 Key Motivators That Govern All Human Behavior

1. MONEY
2. TIME
3. SECURITY
4. ACHIEVEMENT / CHALLENGE
5. MAKING A DIFFERENCE
6. IMAGE AND REPUTATION
7. ENJOYMENT

(Above) Members of Arrowhead's Doctor Relations Team, including (left to right), Katie Harkness, Racheal Gill, Melissa Daniels, Chelsea Brock, and Tanji Nielsen.

During one particular interview, a sailor told Abrashoff that he would not be extending his service once his commitment to the Navy was over. When Abrashoff asked the sailor why he wanted to get out of the Navy, the sailor responded, "Because no one asked me to stay."

CHANGING DIRECTION

After conducting the interviews, Abrashoff learned what could be improved on the ship. He also discovered what motivated the sailors.

(Above) Nankin Dental Associates doctors and their spouses. The practice is located in Quincy, MA.

Abrashoff identified seven key motivators that govern all human behavior: money, time, security, achievement (or a challenge), making a difference (altruism), image and reputation (individual motivation), and enjoyment.

Abrashoff decided that if he could find out what motivated the sailors, he could match their skills to their motivations and potentially increase productivity and satisfaction.

Abrashoff also validated the sailors when things went well. He gave out 115 medals of validation in 15 months (as opposed to 15 medals of validation given out during the year before he assumed command).

The overriding philosophy behind Abrashoff's changes was clear and open communication. With open communication, the sailors felt comfortable sharing their ideas as well as their concerns. Additionally, Abrashoff's leadership style required that sailors take ownership and pride in their work.

In 12 months, the USS *Benfold* completely transformed. The ship went from being one of the worst-performing ships in the Navy to being a top performer. The turnover rate for sailors decreased to almost 1 percent. Overall operating costs were slashed by almost 25 percent.

However, Abrashoff doesn't take credit for the dramatic change. He said, "My crew did that. What I did was reinvent my leadership style and create an environment where the sailors felt safe, empowered, and supported. When they came to me with a problem, I'd say 'It's your ship—how would you fix it?'"

Abrashoff's leadership style and management principles can transform any organization. After his speech, Dr. Gary Nankin of Nankin Dental Associates said, "His [Abrashoff's] experiences in the military have a direct correlation to dentistry and how we need to build collaboration with our teams."

Abrashoff's speech similarly resonated with Dr. Ryan L. Brittingham of Legends Dental in Lawrence, KS. Dr. Brittingham said, "In listening to the ship captain, I was reminded how my business and the daily operations of running it is not so different from what so many of us go through in our lives. Of course, what we all actually do is different from each other but the challenges with our teams, with our clients, and with ourselves are common challenges that we all share. To set a plan, to stay motivated in the activation of that plan, to engage with our teams, and to stay the course are all incredibly strong lessons that I was reminded of and encouraged to bring to reality."

Think about your organization and ask yourself, "How can I engage my staff to take more ownership of their responsibilities? What processes can I put in place to enact change and empower staff members?" The only limit to what you can achieve are the limits you set on yourself and your team. Start thinking today of how you can make changes for the better.

CONSTELLATIONS: GUIDING YOUR TEAM MEMBERS TO SUCCESS

During the symposium, Tawana Coleman, a practice management trainer with the Dr. Dick Barnes Group, spoke about developing strong dental office teams. During the past 20 years, thousands of dental teams have attended the Total Team Training course with Tawana and experienced her expertise in building productive dental teams.

When she started her career, Tawana worked in a dental office in Fort Smith, AR. After consulting with offices around the country for Total Team Training seminars and coachings, Tawana has visited 49 of the 50 states, and she has traveled to Europe several times.

In her address, Tawana emphasized some of the most effective tips for working with dental practice teams. She said, "The words you use with your patients and your team members matter. Learn how to use them to your best advantage."

The symposium officially marked Tawana's last trip with the Dr. Dick Barnes Group and Arrowhead Dental Laboratory, because she announced her retirement during the event. Tawana said, "To love what you do and know that it matters . . . what could be better?"

After Tawana's speech, Dr. Anthony R. Corral of Jax Beaches Family Dentistry in Jacksonville Beach, FL, sent her his best wishes. He said, "Her compassion, fearlessness, and openness have taught my staff and I how to deliver quality dentistry and to be passionate and have empathy toward our patients." Arrowhead also wishes Tawana every happiness in her retirement.

(Above) For more than 20 years, Tawana Coleman has worked with Dr. Dick Barnes, pictured together at the symposium.

THE CREW: EFFECTIVE COMMUNICATION

The Passing Zone, a comedy juggling team with Owen Morse and Jon Wee (see *photos, below*), started the second day of the symposium off right! They used their talents and skills to illustrate the importance of communication among team members. The Passing Zone provided entertainment while at the same time educating everyone on important concepts. It's easy to see how miscommunication can have tragic consequences when you're juggling with chainsaws! They performed flawlessly and everything worked out for the best.

HORIZONS: LOOKING TO THE FUTURE

Dr. George Tysowsky, Vice President of Technology at Ivoclar Vivadent, addressed the participants on the topic of dentistry's future. What's on the horizon? *(continued on page 41)*

(At left) Owen Morse (left) and Jon Wee (right) of The Passing Zone with Dr. Michael Tornow (center); and with Matthew Cook (below).

Internal Revenue

Providing In-House Solutions for Edentulous Patients.

Taking an edentulous patient from start to finish in fewer dental appointments allows dentists to position themselves as providers who can fulfill their patients' surgical and restorative needs. With the proper training, dental providers can provide extraction, grafting, and implant placement during one appointment at one location. This allows dentists to reduce the number of visits for the patient and helps minimize the patient's cost, since he or she is not required to visit multiple dental providers.

Additionally (and most importantly), dental providers who offer full-service care have full control of a patient's surgical and prosthetic outcome. Depending on a patient's desires, the clinical conditions of the oral environment present, and the skills of the dental provider, a dentist may choose to extract teeth, level bone, and graft with guided dental implant placement—all within his or her dental practice.

Dental providers who offer full-service care have full control of a patient's surgical and prosthetic outcome.

A COMPREHENSIVE CASE

A patient visited my practice for a consultation and desired to restore her smile *(see Figure 1)*. She complained of generalized discomfort in her entire dentition, probably due to the rampant caries and infection that were present *(see Figures 2, 3, 4, and 5)*. Having already visited multiple providers for an evaluation, the patient was frustrated with the conflicting treatment options. The suggested treatments required multiple surgical and restorative visits that would take a long time to complete, or the dental treatment required a team approach in which little coordination by dentist and specialist was communicated to the patient.

Figure 1: Preoperative Full Face View

Since neither option appealed to her, the patient asked me to provide comprehensive treatment that would include tooth extractions, bone leveling, grafting, dental implant placement, immediate provisionalization, and prosthetic rehabilitation—all within my own practice.

When presenting cases such as this to my patients, I always use the Dine Digital Solution camera (Lester Dine). Not only is this camera small, light, and waterproof, it also is very effective at taking clear close-up photographs, as well as full face shots. Additionally, I always offer my patients a third-party payment option like the Lending Club (San Francisco, CA) for their treatment. Lending Club Patient Solutions provides patients with great funding flexibility, low interest rates, and high approvals. The support from the Lending Club staff has also been welcome and professional.

TREATMENT PLANNING

A cone-beam computed tomography (CBCT) scan 8100 3D (Carestream Dental) was taken to accurately treatment plan this case to make certain that no complications would arise from doing all the procedures (tooth extraction, grafting, and implant placement) within one visit. Since the patient's entire dentition had rampant caries, the treatment required extracting teeth (numbers 2 to 15 and 18 to 31), as well as the impacted third molars (tooth numbers 1, 16, 17, and 32) to avoid any additional complications in the future.

To further develop a treatment plan, I forwarded diagnostic models to the dental lab and mounted them on an articulator for further analysis and to meet the patient's aesthetic and functional needs. Instructions for a virtual wax-up were prescribed for increasing the patient's vertical dimension due to a collapse in her bite from the severe wear in her dentition.

As a result of the information gathered from merging the cone-beam computed tomography information with the STL files from the virtual wax-up, I determined that aesthetics and function could be enhanced by restoring the patient's entire maxillary and mandibular arches with implant-supported restorations. While with the patient, I reviewed all of the risks, benefits, and alternatives of the various treatment options including dentures, overdentures, and fixed restorations. The patient ›

I reviewed all of the risks, benefits, and alternatives of the various treatment options with the patient.

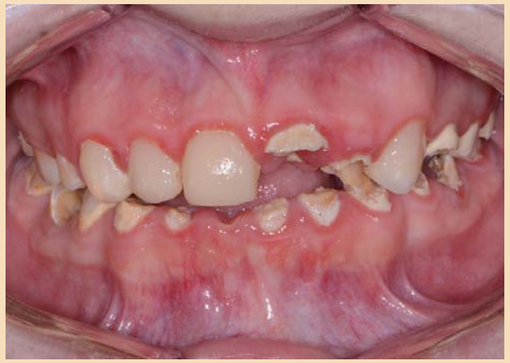


Figure 2: Preoperative Retracted View Biting

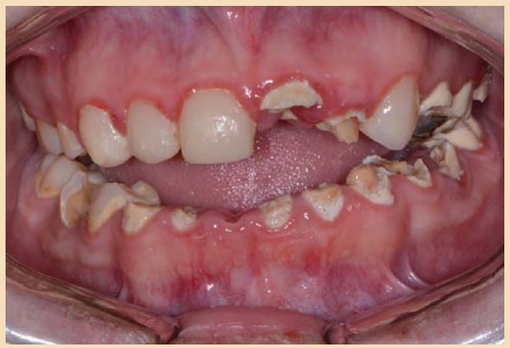


Figure 3: Preoperative Retracted View

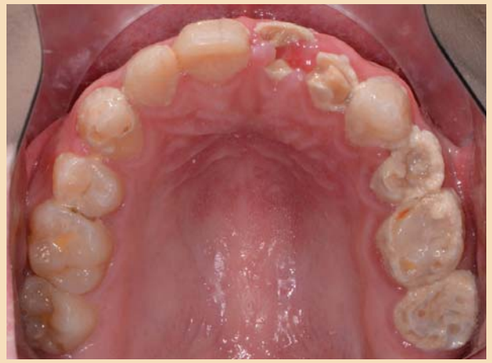


Figure 4: Preoperative Maxillary Occlusal View

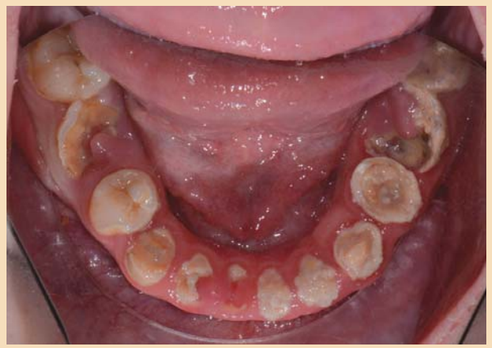


Figure 5: Preoperative Mandibular Occlusal View

Figure 6: Hiossen-Osteem Guide Kit

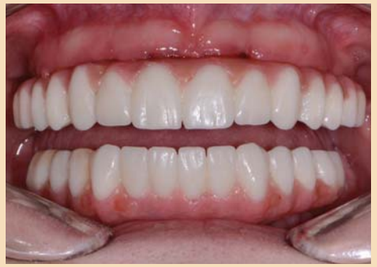


Figure 8: Fixed Implant Provisional Restorations

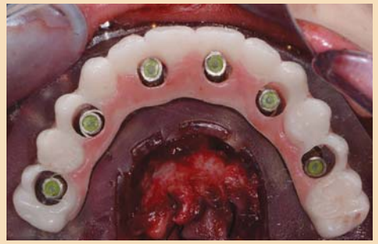


Figure 7: Fixed Implant Provisional Restoration Pick-Up

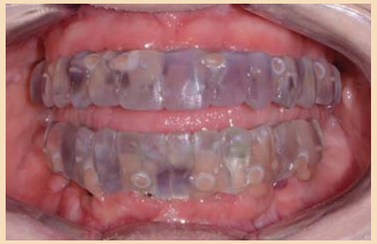


Figure 9: Clear Duplicates of Provisionals Used for Relations

chose a treatment plan that consisted of screw-retained, fixed zirconia restorations in the upper and lower arches, supported by six implants.

I utilized the ET III SA (Hiossen) implant system for this particular case because of the combination of their corkscrew thread, built-in platform switching, and apical design. According to the manufacturer, the enhanced SA (sandblasted and acid etched) surface of this implant has shown a substantial quickening of gene expression, cell differentiation, and proliferation that are essential to osseointegration (meaning faster bone healing and earlier loading times).

When performing so many procedures in one visit, I utilize IV sedation to make the procedure more efficient and comfortable for the patient as well as myself.

Other dental implant systems on the market with high initial stability include, but are not limited to: Engage™ (OCO Biomedical), NobelActive (Nobel Biocare), Seven (MIS), I5 (AB Dental USA), Conus 12 (BlueSkyBio), and AnyRidge (Megagen).

I selected the type and size of the implant because of cone-beam computed tomography planning, its relationship to the planned restoration, and its proximity to vital structures that were determined before performing the surgery. I planned for guided bone leveling as well as immediate implant placement at the surgical appointment by using CT-based bone leveling and implant drilling guides.

Additionally, prefabricated, screw-retained, fixed provisional restorations would be directly picked up with acrylic over dental implants in the maxilla and mandible in the key implant positions, if adequate fixation was acquired.

When performing so many procedures in one visit, I utilize IV sedation to make the procedure more efficient and comfortable for the patient as well as myself. Since the patient was sedated, a LogiBloc® (Common Sense Dental) mouth prop was used to keep her mouth open. LogiBloc's unique design stabilized and comfortably supported the patient's jaw while allowing unrestricted visual and physical access to the working area for the provider.

THE PROCEDURE

Once the patient was completely sedated and anesthetized, I extracted her teeth in a systematic manner, working in small sections at a time, starting from the anterior maxillary teeth. I used the Physics Forceps (Golden Dental Solutions) like a modified class I lever to atraumatically extract the teeth, with the goal of trying not to disturb the underlying bone. The beak of the forceps was placed on the lingual cervical portion of each tooth, while the soft bumper portion was placed on the buccal alveolar ridge at the approximate location of the muco-gingival junction.

During the extraction process, the beak grasps the tooth and the bumper acts as the fulcrum. I accomplished the extractions with only slight wrist action in a buccal direction, taking about 40 to 60 seconds for each extraction, depending on the tooth morphology and density of bone.

Once all the maxillary teeth were extracted, the alveolar crest was leveled 2 to 3 mm apically, following the parameters set by the bone leveling guide with the AEU7000 surgical motor/handpiece (Aseptico) so that the patient's transition line from the ridge to the prosthesis would not be visible when the patient smiled. Once completed, I inserted the surgical drilling guide and the sites for the implants were initiated with the Hiossen-Osstem Guide Kit *(see Figure 6)*.

In the upper arch, six 4.0 mm diameter ET III SA dental implants were placed in the areas of teeth (numbers 4, 6, 8, 9, 11, and 13) to support an All-On-Six restoration. I angled the most distal implants in order to avoid the maxillary sinus cavities and any augmentation in that area.

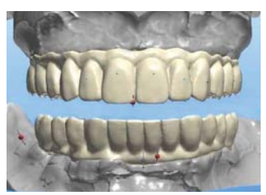


Figure 10: 3Shape View of the Proposed Treatment

In the lower arch, I used several different widths (3.5, 4.5, and 5.0 mm) of the ET III SA dental implants due to various widths of bone available in the remaining ridge. There, the tooth areas that would have dental implant placement included tooth numbers 19, 22, 23, 25, 27, and 30.

A baseline implant stability quotient (ISQ) reading of the implants was taken utilizing the Osstell® ISQ unit (Henry Schein®). Since the initial readings were all above 65 and the quality of bone after leveling was good, temporary cylinders (Hiossen) were placed on the multi-unit abutments (Hiossen) for immediate provisionalization.

Any residual areas around the implants or in the sockets were grafted with a putty blend of cortical mineralized and demineralized bone grafting material to optimize the area for regeneration. I achieved primary closure by suturing the tissue with resorbable sutures.

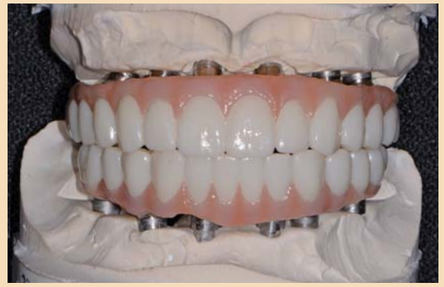


Figure 11: Monolithic Zirconia Restorations

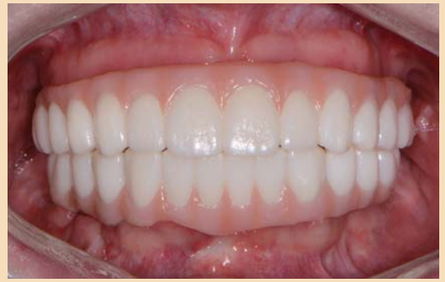


Figure 12: Postoperative Retracted View Biting

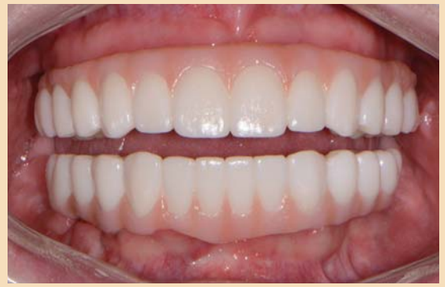


Figure 13: Postoperative Retracted View

To ensure a passive fit over the temporary abutments *(see Figure 7)*, I tried in the immediate provisional restoration. Once confirmed, block out material was placed to prevent the restoration from locking on, and chairside hard reline material (Rebase II, Tokuyama®) was placed within recesses around the temporary abutments to pick up the restoration.

After the material completely set, the immediate provisional restoration was removed and any access material was trimmed and polished with the Torque Plus (Aseptico) lab handpiece and acrylic bur (Komet). I utilized a similar series of steps for the mandibular arch. The ISQ values were even higher, due to the type and quality of bone present in the patient's mandible.

Next, I took a panorex to confirm the placement and position of the dental implants with their corresponding multi-unit abutments and temporary cylinders.

Seven days postoperatively, the patient returned with very little discomfort, swelling, or bruising. She was very pleased with her fixed provisional restorations *(see Figure 8)*. Now that the patient was no longer anesthetized, I checked the occlusion again to confirm that there were no interferences in lateral and protrusive movements. The next step in her treatment consisted of impressions for the definitive upper and lower restorations approximately four to five months postoperatively.

Seven days postoperatively, the patient returned with very little discomfort, swelling, or bruising. She was very pleased with her fixed provisional restorations.

Approximately 16 weeks after implant placement, the patient returned for the prosthetic phase of her treatment. The gingival tissue around the implants looked pink and healthy. Each implant was tested with the Osstell® ISQ implant stability meter. Since the ISQ readings were all very high (above 75), impression posts (Hiossen) were inserted on the multi-unit abutments.

Since all the dental implants were well integrated, impressions were taken for the definitive restorations. For both arches, impressions were taken using Instant Custom Trays for crown & bridge (Good Fit®) with a heavy and light body polyvinyl siloxane (PVS) impression material (Take 1® Advanced™, Kerr).

I accomplished bite relations by picking up clear duplicates of the provisional restorations *(see Figure 9)*. Instructions for size, shape, and color for the definitive restorations were forwarded to the dental laboratory and any changes indicated were communicated to the dental laboratory technician.

An FP3 prosthesis was fabricated for the patient's upper and lower restorations. The pink gingival areas of this prosthesis type were needed to reconstitute the maxillary and mandibular tissue contours, as substantial bone leveling was required to even out the patient's smile.

With improvements in materials and advancements in CAD/CAM technology *(see Figure 10)*, full-arch prostheses can now be precisely milled from monolithic zirconia, offering aesthetics and functionality with the added benefit of long-term durability. Exhibiting exceptional fracture *(continued on page 42)*

The New Dynamic Duo

Total Team Training Launches with Two New Experts.

For the past 20 years, many dentists have recognized Tawana Coleman as the expert behind Arrowhead Dental Lab's Total Team Training (TTT) seminar. During that time, Tawana led hundreds of seminars around the country and traveled extensively to provide in-office coaching to dental practices across North America and Europe. Tawana left an indelible mark on the dental industry, helped promote the principles of the Dr. Dick Barnes Group, and was a champion for the superior-quality products provided by Arrowhead Dental Laboratory.

When Tawana retired in July 2016, the practice management torch that she carried for many years was passed along to a new generation of Total Team trainers. Instead of just one face and voice behind the Total Team magic like there has always been, now there are two!

Instead of just one face and voice behind the Total Team magic like there has always been, now there are two!

(Above, left to right) Trish Jorgensen and Glennine Varga bring a combined total of more than 50 years of experience to the Total Team Training seminars and in-office consultations. They succeeded Tawana Coleman, who retired in July 2016.

Glennine Varga will primarily conduct the seminars and Trish Jorgensen will manage the in-office classes and coachings. As they work together in this joint effort, this dynamic duo will take Total Team Training to the next level as they bring their own personalities, specialties, and expertise to the course and office coachings. The foundations that Tawana established for TTT will stay the same—but Total Team Training will be accessible to more dental offices in a variety of formats as this pair makes the course and coaching package their own.

To get a better idea of what these two professionals will bring to the table, Aesthetic Dentistry *editors sat down with Glennine and Trish for two interviews. In this article, we're happy to introduce them to you and share their qualifications, areas of expertise, passion for dentistry, and overall goals for the future of Total Team Training.*

MEET Glennine Varga

Glennine Varga is passionate about helping dental practices improve—through using the Total Team Training techniques and by incorporating dental sleep medicine. Glennine started working in the dental industry in 1996. She began her career as a dental assistant at TMJ-Sleep Colorado (located in Pueblo, CO) for Dr. Jim Beck. Glennine is a believer in education, so she immediately started adding to her repertoire of skills by taking continuing education (CE) courses. "I was given the opportunity to attend some major classes immediately. And when I say 'major,' I mean classes like full mouth reconstruction," Glennine said.

In March 2002, as the practice's lead dental assistant, Glennine took the Total Team Training seminar with Tawana Coleman for the first time. "What I remember most about it was practicing the principles taught in the course over and over and over. I also remember that Tawana stressed how important the new patient interview is—the interview, getting specific information from the patient, doing the active listening, figuring out what's driving the patient toward treatment, and so forth," Glennine explained.

With consistent and constant repetition, Glennine soon became an expert at the new patient interview process in particular. She said, "In our office, I was the person doing the interview, establishing the relationship with the patient, and being the assistant who held the patient's hand through everything."

Glennine became very proficient at finding out exactly what the patients needed so that comprehensive dentistry could be presented and, ultimately, accepted. She explained, "During that time, we were averaging two full mouth cases a month, but sometimes we would be doing four cases a month."

With an intense focus on aesthetic dentistry, and strictly following Tawana's TTT structure, it didn't take long for Dr. Beck's dental office to become a highly profitable full mouth reconstruction practice. With that reputation also came many opportunities for the practice itself to offer continuing education. Glennine said, "Arrowhead was our go-to dental lab for all of our full mouth cases, and this gave my doctor a platform to speak and teach his peers."

Glennine Varga is the instructor for the Total Team Training group seminars.

Beginning in fall 2002, Glennine also provided instruction at the lectures. "I was teaching the team on the clinical side and the interview process," she explained. "We taught the structure that our office followed to other dental teams at seven hands-on courses, including five times at the Full Mouth Reconstruction Team Training and twice at the Functional Prosthetic Occlusion and Cosmetics Staff Program."

Another responsibility that Glennine had at this time was all of the medical billing for the office. She worked primarily with DentalWriter™ software, and soon became so proficient with it that she was asked by Nierman Practice Management to work part-time for them while she continued her full-time dental assistant duties.

I was the person doing the interview, establishing the relationship with the patient, and being the assistant who held the patient's hand through everything.

Then, apparently because her plate wasn't full enough, she picked up another part-time job with BioRESEARCH Associates, Inc., a diagnostic dental equipment company. Of course, Glennine's full-time job and two part-time jobs were capped off with speaking engagements at workshops and conferences, too! The early years of her career in Colorado were definitely busy years, but they helped establish a solid foundation for Glennine's career today. Because of those opportunities and experiences, Glennine is comfortable in the role of instructor and facilitator. ›

NEW CAREER PATHWAYS

About ten years ago, Glennine decided to relocate to Las Vegas, NV, for personal reasons, and also to explore some new career opportunities by working full-time for DentalWriter™ and by traveling the country with some of the world's top sleep apnea experts. Glennine said, "I got extremely interested in dental sleep medicine towards the end of my time in Colorado, and it became a passion of mine."

Total Team Training . . . will give you the foundation for how to interact with your patients.

Glennine is currently a Dental Sleep Medicine Coach for DSM Boot Camp, which provides coaching and team training for dental sleep medicine, and she regularly lectures alongside pros like Dr. Steve Carstensen and Dr. John Remmers at the Pankey Institute's dental sleep medicine courses. In addition to Glennine's lectures in the sleep dentistry circuit, she is also an active visiting faculty member of the American Dental Association (ADA), the Academy of General Dentistry (AGD), and the Spear Education group.

Over the years, Glennine has trained and assisted hundreds of dental offices throughout the country on practice management techniques, TMD and sleep apnea concepts, and effective medical billing procedures. With all of her public speaking and teaching experience, Glennine is the right woman for the job as the lecturing half of Arrowhead's Total Team Training duo.

EDUCATION ADVOCATE

As mentioned earlier, Glennine is a huge believer in CE. She has participated in thousands of hours of CE credits over the years, and has been involved in dozens of in-office consultations each year. Glennine has attended courses at universities, academies, institutes, seminar groups, and study clubs on all sorts of topics including orthodontics, implants, oral surgery, sleep apnea, TMD, practice management, and finances. Glennine believes that the dental industry should place a high value on education since it affects the productivity of the practice.

(Above) A slide from the TTT course shows the Arrowhead employees who offer support for team members learning the TTT structure.

On a recent visit to a large office with close to a hundred employees, Glennine noticed that the newest people were the ones on the phones, and they had very little education about basic dentistry. "They didn't know the difference between tooth number 2 and tooth number 30, or what could possibly be wrong if a tooth has sensitivity to heat," she said.

"One huge aspect that I focus on in my trainings with teams is that you have to educate the patients. An uneducated patient cannot make educated decisions."

These untrained team members simply handed callers off to someone else when they didn't know an answer, which made the practice seem less than competent. Glennine explained, "With education in the dental practice, we need to start with ourselves. That means Total Team Training. The doctors need to invest time and money in educating their teams if they want to be truly productive."

Glennine feels that education is important not only for the people who work in dentistry, but also for the patients, and this education is a very clear objective in the Total Team Training methodology. "One huge aspect that I focus on in my trainings with teams is that you have to educate the patients. An uneducated patient cannot make educated decisions. You just can't sit a patient down and say 'All right, your treatment plan is $5,000. We expect you to be responsible for $4,000 of that. When would you like to get scheduled?' Patients will say, 'What? $5,000? Are you kidding?'"

"However," Glennine continued, "As you explore the treatment options available for your patients, you will help them learn the benefits of the dentistry so they will also understand its value. I feel that as a general rule, dental practices have a lot to improve on when it comes to informing and educating their patients. I hope to really make that an emphasis in my Total Team Training seminars."

AN EVOLVING TTT

Glennine also plans to introduce more technology, social media, presentation tools, and online services into the course. All of these components are huge to a 21st-century dentist, and Glennine wants to help practices make the best use of them.

She also wants to help dentists realize that if they want to accomplish big goals within their practices (full mouth reconstruction, dental sleep medicine, airway-centered dentistry, etc.), they need to start first with TTT as a foundation.

Glennine recently met a dentist who spoke to her about getting involved in sleep education, but was concerned that his team wouldn't be able to handle the new direction since they were all new and had never been to TTT. He wasn't sure which course he should bring his team to first.

"You need to go to Total Team Training," Glennine told him. "Because that's going to give you the foundation for how to interact with your patients. You can learn dental sleep medicine and airway-focused dentistry, but it will fall back on the fundamentals you learn in Total Team Training and how to focus on the patient, what they want, and give them what is in their best interest. That's why it's important to get your team to Total Team Training first versus starting with training in dental sleep medicine." The dentist agreed with Glennine and decided to enroll in the course.

DO YOU NEED TTT?

For dentists who are trying to decide if Total Team Training is for them, Glennine encourages them to ask themselves these questions. (*Answering "no" to any of these questions means that your practice could benefit substantially from the foundations taught at TTT*).

1. ***Does your practice develop relationships with patients that are patient-focused?*** Are you conducting interviews with all your new patients?
2. ***As a team, are you promoting comprehensive dentistry?***
3. ***Does your office routinely offer more options to patients than services covered by insurance?*** Or are you an insurance-driven practice? If you don't know or aren't sure, then use Arrowhead's simple formula to calculate. Here's how you do it: calculate total insurance collections and divide by total collections. The number will equal the percentage of total insurance collected. The ideal is less than 20 percent.

A CREATIVE SOLUTION

With all her current professional responsibilities, Glennine was concerned about carrying on Tawana's legacy with TTT because she knew of the time commitment involved. She didn't want to give up her dental sleep medicine coaching since it is a passion and she has worked for years to develop her clientele. However, the management team at Arrowhead figured out how to divide the responsibilities so that Glennine could take the position and still pursue her other career interests—by setting up a team with Trish Jorgensen. With two individuals teaching TTT, each member of the team would complement each other and work towards common goals, while specializing in different areas of TTT. "I couldn't be more thrilled to be working for Arrowhead in this capacity and to learn from Dr. Dick Barnes and Tawana," Glennine said. "I'm very excited to work with Trish [Jorgensen] and will continue to evolve this amazing program with the skills that we both bring."

Looking back at her career thus far, Glennine attributes much of her success to the basics she learned through the philosophies from Dr. Dick Barnes. "That's what made me successful, not only at the dental practice, but also every other related opportunity in the dental industry that I've had," Glennine explained. "Now being able to conduct the Total Team Training seminars and workshops for Arrowhead just makes sense. It's my background. It's my foundation."

MEET Trish Jorgensen

Trish Jorgensen brings a wealth of in-office experience and formal education to the Total Team Training seminars. Trish began working in the dental industry in 1978. Initially, she worked as a dental assistant and then as a treatment counselor. After that, she moved to the front office where she worked as an office administrator for Family Dental Health Center in Idaho Falls, ID, for approximately 30 years.

Trish discovered how much she enjoyed working with patients and helping them achieve their dental goals.

As an office administrator, Trish discovered how much she enjoyed working with patients and helping them achieve their dental goals. During that time, Trish also became so proficient on Dentrix software, she was asked to be a trainer for them. Although flattered, Trish declined the offer because "it was just not what I wanted to do. My focus has always been on helping the dental office become more productive and helping patients learn what's possible in terms of their dental work. Although I enjoy computers and software, I wanted to be in dentistry, too."

Trish Jorgensen is the instructor for the Total Team Training in-office classes and consultations.

EXTENSIVE TRAINING

Over the years, Trish has gained expertise in various areas of dentistry. When she started in the industry, dental assistants didn't need prior training—often they learned their responsibilities on the job. When Trish was starting out, a dentist hired her and then conducted on-the-job training until Trish learned the ropes.

After she completed this initial training, Trish attended more formal dental training at Idaho State University in Pocatello, ID. In addition, while she was employed by Family Dental Health Center, she received training at Eastern Idaho Technical ›

College (EITC). Trish explained, "I did all of the accounts payable, taxes, payroll, and the ledger for the practice, so [the dentist] sent me to a school for accounting."

Trish's proficiency in Dentrix also included advanced training. She attended numerous courses on the software. During that time, she also attended the Business of Dentistry—a several-

(Above) The TTT course teaches team members a structure for making dental practices better and more productive.

day symposium offered by Dentrix. "The symposium included around 50 different presenters on all kinds of topics. Attendees went from one class to another to another over the multi-day symposium. I've attended Business of Dentistry numerous times since the year it started," Trish explained.

Trish also began attending seminars with Dr. Dick Barnes early on in her career. It was so early in Arrowhead's history, the company didn't even have the current lab facility. "We went to San Diego many times to hear Dr. Barnes speak in the early years, and then continued attending the seminars once he opened the lab in Utah," Trish explained.

Trish loves helping practices become more productive by implementing the Dr. Dick Barnes structure.

About that time, Trish met Tawana Coleman. "I attended the first Total Team Training seminar in Salt Lake City, UT, that Tawana did on her own. I had attended her predecessor's trainings for years and continued on with the program when Tawana came on board."

The year following Tawana's first seminar, Tawana traveled to Idaho Falls to conduct an in-office training at Family Dental Health Center. Trish became acquainted with Tawana on a personal and professional level at that time and they've stayed in contact over the years.

TIME TO CHANGE

In January 2015, Trish expressed to Tawana a need for a possible career change. "Not that anything was wrong," Trish explained. "I loved where I worked, I just needed some growth." Tawana called a short time later to discuss a possible position with Arrowhead—an opportunity to shadow Tawana at her in-office coachings around the country.

Trish agreed and for the past year and a half has accompanied Tawana to all of her in-office coachings until March 1, 2016. At that time, Trish was officially hired as a full-time employee with Arrowhead.

Since May 2015, Trish has conducted more than 22 in-office trainings in more than 12 states—either as a joint-effort with Tawana or as a solo coach. Trish explained, "I have learned so much from working directly with Tawana for 15 months. Because of that experience, I am confident in continuing the legacy Tawana established with the in-office coachings."

Trish has loved the opportunity thus far. "Arrowhead is different because of the focus on the patient," she said. "No one teaches that type of focus. Nobody except Arrowhead. When you attend other seminars, you often feel like the only solution is to cut overhead. While cutting overhead is important, Arrowhead teaches that the easiest way to decrease your overhead is to increase your production—and the easiest way to increase your production is to build relationships. People do business with people they like and trust," Trish explained.

BRING IN REINFORCEMENTS

With Trish's new position as a Practice Development Coach, she works one-on-one with practices at their offices. The in-office coaching sessions can be structured a few different ways: the sessions can reinforce what practices learned from Glennine Varga at the seminars, or Trish can teach dental practices the Total Team Training principles in their offices and then follow up with direct and personalized implementation of the TTT techniques.

Trish's job doesn't end when the coaching session is over. She follows up with offices to track their progress and offer any help that they might need. As Trish explained, it's very natural when learning something new to attempt to apply it for a few days and then eventually fall back into old habits. "One of the most difficult things I found as an office administrator was actually implementing the things I learned at TTT," Trish said. But once everyone in the office is aware of the fundamentals of TTT, Trish can give them personalized strategies on how to make the principles work for them and guide them in taking their practice to the next level.

"My specific purpose is to help everyone on the team be involved, to be on the same page," Trish explained. "It's not just the front office who needs to follow TTT principles, it's everyone: the doctor, the clinical team, *everyone*. Everyone needs to be on board because each staff member is an important part of the structure and has a critical role to play in the success of the dental practice."

"My specific purpose is to help everyone on the team be involved—to be on the same page."

Trish recommends that dental practices utilize in-office coaching as soon as possible after attending Glennine's seminar. "You don't want to wait too long after the seminar, but rather arrange for me to come in while the principles are still fresh on your mind."

She also recommends that offices return, like her office did, multiple times to the TTT seminars. Trish advises this for two

I want practices to succeed, no matter what. You will not see this kind of relationship with any other dental consult company.

reasons, as she explained, "because of turnover in the practice and because people just need to hear it again. We all need refreshers. That's human nature. It's a fact that we as humans don't retain a hundred percent of what we hear. That's why repetition is so crucial in learning."

MAXIMIZING THE IN-OFFICE COACHING SESSIONS

Trish makes a few recommendations that will help practices get the most out of their in-office coaching:

1. ***Learn the TTT structure.*** To get started, all practices should attend the TTT seminar or schedule a private training to learn the TTT structure. "This is crucial," explained Trish, "because it helps dental teams understand the very specific language and terminology that has a proven success record. It also builds overall excitement for implementing new goals and direction."
2. ***Dentists should take a leadership role.*** Dentists need to exercise leadership for their practice and let their team members know what they expect of them during the training. That includes making sure that people know to put away their phones during the trainings and give the presenter their full attention. "It's not only impolite to do otherwise, but also a waste of the doctor's investment," Trish explained. If the doctor assumes a role of leadership and sets expectations for his or her staff at the outset, the entire process runs much more smoothly.
3. ***Practices should submit pertinent details in advance.*** The practice should complete a "Practice Profile" report prior to Trish's arrival. "This is a two-page document that Arrowhead sends out which gives me a place to start with very detailed numbers," Trish explained. "It helps me get a vision of what the office is like. Then, I usually call ahead and ask some questions about the responses on the profile. We'll discuss what we're going to do—the agenda, and so forth. The Practice Profile is important because it not only tells me more about the dental practice, but it also helps the practice understand what to expect from me and what I'm going to be looking at while I'm there."
4. ***Plan on building relationships.*** Not only does the TTT structure help the team build relationships with each other and the patients, it also encourages team-building with the TTT trainers. "I have a six month, one-on-one relationship with each office that I work with," Trish explained.

And of course once a relationship is started, it rarely ends. "I want practices to succeed, no matter what," Trish said, "and the best way for them to succeed is through relationship-building on all levels. They can call me anytime with questions, even after the six-month training period is complete. You will not see this kind of relationship with any other dental consult company."

(Above) This slide from the TTT course prepares students for specific strategies that help increase patient understanding and case acceptance.

5. ***Plan on being accountable.*** "In order to have success, you need to have accountability in the practice," Trish explained. "I ask for certain reports every week. I evaluate the reports and then we discuss the improvements that need to be made so that the numbers can increase. In order to be successful, the practices need to be self-accountable and self-monitoring so they can see what they're doing. So this idea of running reports needs to be a habit they keep on doing, even without my guidance."

(Above) This slide highlights the important steps of the new patient interview. The TTT course emphasizes techniques to use for all new patients.

6. ***Don't give up.*** "Even in offices that have more than one dentist, if this structure is going to work long-term, everyone has to learn it and stick with it. Be like a postage stamp—stick to it until you get there," Trish explained. The six-month coaching sessions can really help *(continued on page 43)*

"The only thing I ever aspired to be in my life . . . was to be a dentist and then to be the best dentist that I could."

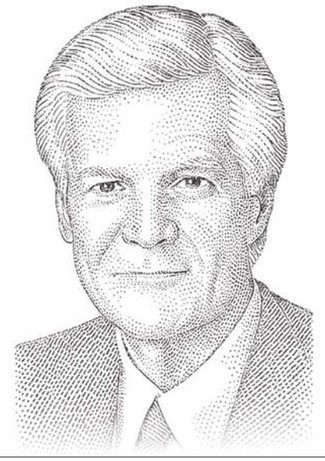
253
Number of Arrowhead Dental Lab employees.

"Education is a lifelong process, and I'm not finished."

FAVORITE FOOD
"I don't really have a favorite. Some people live to eat. I eat to live."

3¢
Cost of a newspaper when Dr. Barnes was a kid. He bought them and then sold them in his neighborhood for 5 cents each.

"In order to be good leaders, dentists should let go of some things and allow team members to 'own' their responsibilities."



"Early on, I was challenged by placing myself in situations where I was really uncomfortable. I sought out those situations because it was necessary for personal growth."

THE MAN BEHIND THE BUSINESS

DR. DICK BARNES

More than 40 years ago, Dr. Barnes founded Arrowhead Dental Lab in addition to his already-thriving dental practice. Both the practice and the lab were successful but Dr. Barnes wasn't content to rest on his laurels. His goal was to help other dentists become better and more productive. Take a closer look at some of Dr. Barnes's quotes, accomplishments, and favorite things.

Over **50,000** dentists have attended his seminars.

"Become a better dentist every year."

"You do not make yourself successful. Other people make you successful."

1962
Graduated from Dental School at Marquette University

•

The American Academy of Gold Foil Operators awarded Dr. Barnes the distinguished Gold Foil Achievement Award for clinical excellence.

"Your patients 'buy' you before they buy your dentistry."

FAVORITE COUNTRY TO VISIT
Norway

"Life is an evolving process."

FAVORITE BOOKS
- *The 7 Habits of Highly Effective People*, Stephen R. Covey
- *How I Raised Myself from Failure to Success in Selling*, Frank Bettger
- *How to Win Friends & Influence People*, Dale Carnegie
- *The Power of Positive Thinking*, Norman Vincent Peale

30
Total years Dr. Barnes practiced dentistry.

FAVORITE ARTIST
Royo, a contemporary Spanish impressionist whose paintings often show a peaceful, Mediterranean background.

FAVORITE BRANDS
- Mercedes–Benz
- Patek Philippe
- Hermès
- Brioni

"Quality is important."

"If you see someone who is a success, just do what they're doing."

"Ask yourself, 'Why am I doing things the way I'm doing them?' If the answer is 'Because I've always done it this way,' then it's time to reevaluate."

FIRST JOB
Working as a dish-washer at Richie's Drive-in in Taft, CA.

"No great discoveries come about unless you break from traditional thinking."

"I want my patients to keep their permanent teeth."

FAVORITE SINGERS
Frank Sinatra
Tony Bennett

1st and only member of his family to graduate from college.

"Success doesn't happen because you pursue it. Instead, it follows your actions. Success ensues."

1988
Dedication of a dental clinic in the Cook Islands. Dr. Robert Crim and Dr. Linda Crim presented Dr. Barnes with a plaque that reads, "We dedicate this dental clinic on the island of Atiu in the Cook Islands to Dr. Dick Barnes. Let it always bear his name, for without his instruction and inspiration, we would never have been able to make this commitment to the people of Atiu."

1957
Dr. Barnes got his first car—a '50 Mercury. He learned how to rebuild the engine and make the repairs himself.

FAVORITE SONG
"Smile and the world smiles with you, sing a song. Don't be weary, just be cheery all day long. Whenever your trials, your troubles or your cares, seem to be more than you can really bear, smile and the world smiles with you, sing a song."

DR Dick Barnes GROUP
Founded more than 40 years ago.

Q&A explains

All Zirconia Crowns Aren't Created Equal

Not Your Run-of-the-Mill Zirconia Crowns.

Aesthetic Dentistry recently spoke with Arrowhead Dental Lab's CAD/CAM manager, Jay Nelson, about ZirCrown, a monolithic zirconia restoration. Jay and his team developed a unique process that results in a more aesthetically-pleasing zirconia restoration and he shared his insights regarding the process with us.

(Above) Jay Nelson, supervisor of Arrowhead's CAD/CAM department, worked with a highly skilled team to develop an aesthetic, monolithic full zirconia crown.

AD: WHAT IS A MONOLITHIC FULL ZIRCONIA RESTORATION?

JN: In the past, full zirconia crowns lacked the translucency and therefore the aesthetics of a lithium disilicate crown. But today, with the newer zirconia crowns on the market, we're able to produce a higher aesthetic crown. Full zirconia is now competing with lithium disilicate material as a truly aesthetic restoration. A majority of crowns that are milled in-office use the e.max CAD blocks, which is lithium disilicate. But the new zirconia crowns are stronger than lithium disilicate (the lack of strength in lithium disilicate is one of the material's main drawbacks) and also offer a more aesthetic outcome.

AD: WHAT IS THE DIFFERENCE WITH THESE NEWER ZIRCONIA CROWNS?

JN: The material itself is still zirconia. But it's the fabrication of the zirconia itself—the actual manufacturing of it—that has been improved. What's new is the process that we use to fabricate the crowns, and this process leads to a more aesthetic outcome. Doctors are requesting more and more of these zirconia crowns. It's a growing market. We've had this zirconia for a couple years, which provided time for our internal team to refine and perfect the process.

AD: CAN YOU EXPLAIN WHAT'S NEW ABOUT THE PROCESS OF MAKING THESE CROWNS?

JN: At Arrowhead Dental Lab, we've done *a lot* of research about how to fabricate these full contour zirconia crowns. We tested and tried out several methods until we developed a process that led to the highly aesthetic result that we knew our customers would appreciate. Our research included a lot of trial and error. There were a lot of different processes that we used and they all offered varying results.

One of the things that we learned through our research is the value of not only a good-functioning crown but also designing it on software that creates a nice-looking morphology and anatomy in the crown. We want the crown to have the proper color, the proper shading, the gingival warming, and the incisal translucency—all of which is traditionally hard to achieve in a full contour zirconia because we remove the porcelain. So now, with the new process, we can achieve all of that with custom green state shading. The result is a zirconia crown that offers the traditional strength as well as the incisal translucency.

Our process is really customized—it's a custom order made by master technicians. A good technique starts with infiltrating the green state of the zirconia prior to sintering—that's where we achieve the proper shade. At Arrowhead, our technique involves actually brushing on the stains of the final shade before it's sintered—before it's fired. Some other labs have introduced this technique, but Arrowhead Dental Lab has tremendously skilled technicians and we've really perfected the process to take full advantage of the skill set we have in-house.

AD: WHAT IS THE EXPERIENCE OF THESE TECHNICIANS?

JN: We have three employees who stain the zirconia crowns at Arrowhead. One of the stainers has been with the lab for about fifteen years. The unique thing about our process is that the stainers can't see the result of the final shade until after it comes out of the oven.

So how do we achieve a particular A2 shade or VITA shade when we don't see an instant result until three or four hours later after it comes out of the oven? That's where the experience of our stainers is critical. They know what they're doing and what to look for because they've done the process many times. My department has taken hundreds of crowns and we've stained them different ways, with a different number of brushstrokes, and we've fired them and logged the entire process until we learned exactly what works. We developed a process so that we can match whatever particular shade a dentist requests. If a dentist is really looking for something unique, then we have the skills and people with the experience to be able to deliver that particular, customized shade.

Outside of staining, the technicians are also able to contour the restoration after it's milled in the green state. A technician takes a handpiece and fine-tunes the anatomy of the tooth—wherever the milling machine might be falling short of contouring the embrasures or the height of the contour of the crown.

That's where the experience of our stainers is critical. They know what they're doing and what to look for because they've done the process many times.

Arrowhead has ceramists who will contour the crown prior to the stainers working on the restoration in the green state. The advantage of staining prior to the green state is that the color is saturated throughout the entire restoration, not just painted on after the restoration has been sintered.

AD: WE'VE DISCUSSED THE OVERALL PROCESS, BUT CAN YOU EXPLAIN WHAT THE STEPS ARE THAT THE TECHNICIANS DO FROM START TO FINISH ON A FULL ZIRCONIA CROWN?

JN: First, we scan the models in to our 3Shape scanner. We have multiple designers who design these ZirCrowns on the 3Shape software—where they're basically designing the morphology of the tooth. Then, we send the design to a CAM unit where we calculate the milling path of those crowns. Next, we put the design into a milling machine, where the crown is milled out of the material. We're using Zenostar®, from Ivoclar Vivadent and Wieland. We take the material and mill a zirconia "puck" out of it on the machine. We cut the crown out of the puck, and that's where the hand-contouring of that crown begins. We remove any sprues by hand, and if it's an anterior or a bridge, we will physically fine-tune the contours of it prior to staining. If it's a single posterior, we go straight into staining the crown.

After the staining, it's placed into a sintering oven for four to five hours. If it's a full arch restoration bridge, then it's about a nine- to nine-and-a-half-hour oven cycle, and the oven reaches temperatures of about fifteen hundred and thirty degrees Celsius. After it comes out of the oven, we check the fit on the working die(s) and the occlusion on the working model to ›

If doctors all use the same milling machine and they all use the same process, what differentiates them in the marketplace? If everyone offers the exact same thing, then patients will start choosing dentists solely on price, rather than quality.

make sure the contacts and everything look good. So after the fine-tuning, if there are additional adjustments needed, we will dial in the contacts and make whatever additional tweaks are necessary. Finally, we either polish the crown or apply a little surface staining based on the final shade of the restoration.

AD: WHAT ARE DOCTORS GETTING FOR THEIR MONEY WHEN THEY BUY A FULL ZIRCONIA CROWN?

JN: In my opinion, a lot of these in-office milled crowns are just stamped out quickly—which is why they are cheaper. When doctors buy a full zirconia crown, we spend a lot of time to ensure that the quality of the crown is superior. We ensure that the stain is correct, the shade is correct, and the contours are perfect for the patient. I think the value of these crowns comes from the time that technicians are spending to make them look as lifelike as possible. I think the value and the price of a ninety-nine dollar crown are diminished because they're not spending that time necessary to create a lifelike crown. It shows in the final product.

When doctors buy a full zirconia crown, we spend a lot of time to ensure that the quality of the crown is superior.

AD: ARE THERE OTHER DRAWBACKS TO CROWNS THAT CAN BE MILLED OUT OF AN IN-OFFICE MACHINE?

JN: Yes. I think another concern is for the longevity of that crown. A crown that is generically produced may not seat exactly right. And if it does, how much time did the doctor have to spend adjusting it? Those are important questions that we may not have all the answers to right now. But it's important for dentists to consider these ramifications. For example, if doctors are spending a lot of time reshaping in-office milled crowns, there's an opportunity cost from the dentistry that they lose out on while they were reshaping the crown.

A while ago, a doctor toured our lab and as I was showing our equipment to him, he asked why the product coming out of our machines was better than the product coming out of his machine. At the time, it was the same type of machine. I replied that without a doubt, it's the post-process that our technicians spend on these restorations that truly brings out the value of this crown.

It took the doctor by surprise because he takes a crown directly from the machine and puts it in the patient's mouth and then starts grinding and dialing it in. That's a lot of unnecessary work for him and it takes away from other dentistry he could be doing instead. We don't think the doctor should be the technician. It's a waste of their time, which means lost income.

One thing that's important to point out, too, is that if doctors all use the same milling machine and they all use the same process, what differentiates them in the marketplace? If everyone offers the exact same thing, then patients will start choosing dentists solely on price, rather than quality.

In today's competitive marketplace, dentists should look at things that can separate them from every other dentist in town.

We don't think the doctor should be the technician. It's a waste of their time, which means lost income.

The full zirconia crown seems like a natural, easy product for dentists because it offers patients a crown that has been customized to their mouth, while at the same time saving time for the dentists to do the technical work they are trained to do.

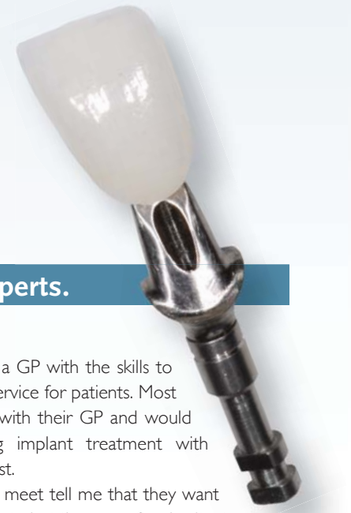
When a lot of dentists hear the sales pitch on in-office milling machines, they often don't realize how much work is involved on their part. It sounds like it's an easy fix from a sales perspective, but it does take a lot of time away from dentistry.

Dentists who want to stay competitive should offer something above the market—above what's commonplace—and full zirconia crowns are above and beyond in-office crowns. We are not taking these crowns right out of a machine, slathering some surface color on them, and shipping them off. We're taking the benefit of both technology and the precision of human expertise to create something more unique, natural, and lifelike. There are human fingerprints on this product—people are actually touching it, shaping it, and creating something that looks like it naturally exists in the mouth, rather than a mass-produced piece of dentistry. ■

Jay Nelson has worked at Arrowhead Dental Laboratory for 16 years. His experience in the industry began at a small dental lab. He then moved to Arrowhead, learning substructure design. Today, he is the supervisor of the CAD/CAM department. Jay also enjoys outdoor recreation and spending time with his family.

Hope Gordon, Elite Full Arch Reconstruction by Dr. Jim Downs, 2013.

Mastering Implants



Five Katas That Take Dentists from Beginners to Experts.

Today, patients are more aware of implants than ever before. With the availability of online information, and with social networking making communication easier, patients have access to more education about various dental modalities. Many dental practices have noticed that patients across various demographics are asking about implants.

For dentists, the ability to do implants opens up a whole new set of treatment options, such as implant-retained dentures and tooth replacement that doesn't require older technologies like bridges. This ability adds another clinical skill set that can help a general practitioner (GP) retain valuable revenue in-house and help patients keep their teeth for a lifetime.

For dentists, the ability to do implants opens up a whole new set of treatment options.

Many young doctors learn about implants, but they usually haven't had a chance to place any—either in school or in their early years of practice (the first 10 to 15 years). Doctors who have been practicing for several years may want to start placing implants to further enhance their skill set and offer more options for their patients.

WHAT ARE THE BARRIERS?

Many GPs are reluctant to do implants for numerous reasons. Often, they've been advised to let specialists do them. Yet in many cases, a GP with the skills to place implants is a great service for patients. Most patients are comfortable with their GP and would prefer simply scheduling implant treatment with someone they already trust.

Many of the dentists I meet tell me that they want to learn more about implants, but they are often hesitant to start learning how to place them either because of how much they assume it will cost or because of low self-confidence.

The cost of the armamentarium and the cost of the training can seem like large obstacles for some dentists. For others, the obstacle may be more fear-based than anything else. The question dentists should ask themselves is, 'What would be best for my patients?'

Here's an example. A 26-year-old patient comes into the office. He's had a crown on the upper left first molar. When you take the crown off, you find it's all decayed underneath. You start endo on it and think you can possibly do a root canal and save it, but as you examine it more closely, you find an extra canal.

You realize that by the time you instrument out the canals, you are going to weaken this tooth. At age 26, the percentage of success over a 10-year period is guarded—meaning there is a 50 to 60 percent chance that the tooth will eventually fail. I truly don't like those odds.

If the tooth does fail, the treatment requires extracting the tooth, grafting the extraction site, letting it heal, placing an implant, and then putting the crown on. At that point, the patient's investment is somewhere around $6,000 to $9,000. A typical patient's response to such a scenario is, "I wish I had known initially that there was a different option. I spent $3,000 on dental work in the first place, and now, less than ten years later, my tooth has broken and I have to start the process all over again."

Conversely, the survival rate for implants is 90 to 95 percent! When looking for a long-term solution for such a patient, an implant will likely be a better choice. Educating patients on their options is extremely important so they know what the consequences will likely be as a result of either choice.

The situation I just described arose in my practice recently. What did I do? I told the patient that I didn't feel comfortable with the survival rate on his tooth. I informed him that I would need to do a lot of work to keep the tooth. I explained that I would have to bore out the middle of the tooth and make it like a hollow log to do the root canals—and at some point it would probably break.

Since that patient was relatively young, the tooth would need to be replaced sometime in the future. An implant would definitely last, though (at least the percentage of survival is much higher). When I presented this information to the patient, he made the decision not to keep the tooth.

ARMAMENTARIUM

To get started with implants, dentists must invest in specialized equipment. One of the basics to have is a blood pressure cuff (to check a patient's blood pressure, which must be checked before any surgery), but that's not a big cost. For any implant system, an electric motor and a surgical kit are a must.

And of course, you need some implants! I recommend buying and starting out with no more than ten implants for the beginning phase of your learning cycle. For those ten implants, select the ones that are most commonly used and placed in the posterior to bicuspids—the first molar to bicuspids region only.

Participants learn techniques through choreographed patterns of movement called *kata*. This Japanese word translates into English as "form."

Beyond this physical equipment, you will need to brush up on your pharmacology, because a lot of implant patients take some kind of prescription medication.

MARTIAL ARTS & IMPLANTS

In judo and some other Japanese martial arts, participants learn techniques through choreographed patterns of movement called *kata*. This Japanese word translates into English as "form." The goal of the technique is to internalize certain movements so that the learner can execute them like a reflex.

Once the movement is automatic, the practitioner can adapt it to different circumstances without thought or hesitation. In this way, students learn to utilize maximum efficiency with minimum effort—a core principle of martial arts. Through mastery of sequential kata, practitioners become adept at martial arts.

Similarly, by following a step-by-step process for implants, dentists can master the basics of implants. This process helps create muscle and mental memory. The kata approach helps ›

(Above) In martial arts, katas combine individual moves into sequenced patterns of movements. Mastery of the katas is achieved through practice.

doctors achieve a level of confidence that they need to begin or strengthen their ability in placing implants.

Why is muscle and mental memory important? When a new skill becomes second nature, it is due to muscle and mental memory. An automatic response indicates that a doctor has thoroughly mastered the skill. Muscle and mental memory is critical for dentists placing implants and is gained through repeated experience. With this experience, dentists learn what works in placing implants and what to avoid.

The uniqueness of the Dr. Dick Barnes Group is that we offer an Over-the-Shoulder™ program, so dentists actually see implants being done.

Muscle and mental memory is critical even in situations where a dentist thinks he or she has the perfect environment and the perfect case. Occasionally, unexpected circumstances arise that complicate even the best situations.

Consider, for example, a new doctor who starts putting an implant in, does the first diameter bur (which is a small bur), and then puts a guide pin in place. At this point, the doctor typically stops work and takes an x-ray to ensure the angle is correct. The x-ray may reveal that the angle is off. When that happens, instead of disrupting the process, an experienced doctor will know that they've simply got to re-angle and re-drill, and things will still be okay. The doctor can save the site without closing it up and starting over again. The muscle and mental memory comes from past experience with similar situations.

FIRST KATA: BASIC PROFICIENCY

The best way to learn about implants is to watch the procedure firsthand. Once dentists see how it's done, they can determine if this is something they want to make a part of their practice. Taking a level I class is an ideal way to make this decision effectively—watch and learn.

The uniqueness of the Dr. Dick Barnes Group is that we offer an Over-the-Shoulder™ program, so dentists actually see implants being done. In the level I course, dentists learn the indications, the reasons for implants, what implants do for their patients, how to diagnose them, how to create treatment plans, and how to educate their patients about implants.

Dentists also get to work on tabletop models so they can start to understand the kinesthetics, or feel, of the implant. By so doing, dentists get a tactile sense of how the implants feel, how the mechanics work, how to orient the implant, and how to ensure that the angles of the implant are correct.

At a minimum, a level I class offers dentists new information so they will be more knowledgeable about implants even if they decide not to do them. Think of the class as an experiment that will help you determine whether you like the potential of implants and whether placing them is something you want to do.

At the end of the two-day seminars, doctors know whether or not they want to start doing implants. Regardless of whether they decide to continue, most doctors appreciate the experience of the level I class. In addition to helping dentists decide whether to continue with implants, the class elevates their existing knowledge so they can communicate better with referring doctors.

Some doctors know they don't want to place implants but they want an increased understanding of the process. For doctors who have wondered why oral surgeons place implants in a certain place or who have any other questions regarding implant surgery, a level I class can yield some great insights.

At the end of the course, most doctors feel that they can do their job better by giving better guidance to the surgeon. No matter what a doctor decides after the class, he or she will leave a level I course with a superior skill set. To continue the muscle and mental training, more experience and more practice is needed at advanced level training courses.

SECOND KATA: ADVANCED TECHNIQUES

After learning the basics and practicing several implants on tabletop models, the dentist should be ready to move on to the next kata. At this point, the dentist has experienced some success and is getting into a rhythm of the sequence of events required for basic implants.

To advance to the next stage, dentists should attend advanced training (level II). During level II training with the Dr. Dick Barnes Group, doctors place implants on mannequins. With the mannequins, doctors get the experience of working in the constrained space that is the oral cavity. Also, with the mannequins, doctors can place as many as 16 implants, versus two or three on the tabletop models. Doctors also learn tissue flap design and proper suturing techniques.

PRACTICE, PRACTICE, PRACTICE

After a level I course, if a doctor doesn't feel comfortable proceeding to level II, he or she can repeat level I training until the understanding is complete. I don't recommend attending seminars without implementing the training in your practice, however. It's like learning to play the piano—you have to practice every day. You don't become proficient at the piano by practicing every two or three months.

To start mastering the new skill, doctors should learn to identify which cases are good cases for implants *(see sidebar, right)*. Once dentists begin to recognize such cases, they will start to get a feel for them after placing about 10 implants.

A "breakthrough" often happens when a dentist is nervous about placing implants, but does so anyway and succeeds. That experience builds the muscle and mental memory—and once a dentist breaks through the nervousness, efficiency and competency naturally follow with additional repetition.

Keep in mind that the timespan in between placing implants is important. I recommend one implant a week to develop proficiency. It's helpful for dentists to continue developing their skills during this time, too. Consider taking continuing education courses on grafting or other areas of specialty for a deeper understanding of the process.

Another good option that can help dentists master the principles of implants is to volunteer for humanitarian dentistry. On some humanitarian trips, dentists place as many as 10 implants a day—it's a quick way to develop proficiency!

THIRD KATA: TEAM TRAINING

Once a dentist decides to do implants, the next step is to ask an implant representative to visit your office and train the clinical team. The staff needs to be prepared for the new experience. It can quickly become a disaster if the team hasn't been trained on the ins and outs of the procedure.

What to Look For

WHEN STARTING TO PLACE IMPLANTS:

- **Avoid patients who are on blood thinners or beta blockers.**
- **Avoid patients who are diabetic.**
- **Choose patients who are nonsmokers.**
- **Look for areas with an abundance of bone.**
- **Some of the best sites are the first molar to the first bicuspid sites.**
- **Look for a lot of bone thickness from the buccal to the lingual aspect.**
- **Ensure there is proper bony width and depth by reviewing x-rays. Avoid anatomy such as nerve canals and sinuses.**
- **Never work on anterior units until proficiency is established. Start with posterior areas first.**

The implant sales rep can bring equipment to the practice and stage the procedure so that everyone is on the same page. The rep can also instruct the team on how to properly care for and sterilize the components of the implant surgical kit.

I recommend using only one operatory for implants—meaning that the designated room is of the utmost cleanliness. All the treatment rooms should be extremely clean, but this particular operatory should be ultra clean for all surgeries.

To start mastering the new skill, doctors should learn to identify which cases are good cases for implants.

The team needs to practice how to garb (meaning how to drape the patient), and how to make the environment as sterile as possible. Set up sterile areas so your team knows where you need to be cognizant of cross-contamination.

I recommend doing a dry run—a total set-up. I even recommend taking pictures or a video of the set-up. The dentist and team can create training videos of these procedures so that when a team member leaves, the dentist can train the next employee based on the video.

Any time I hire a new clinical chairside, the new team member observes the set-up six times. On the seventh set-up, the new team member starts to do the set-up, usually with another team member who is the most experienced. The experienced team member trains the new employee and ensures that everything is done correctly. ›

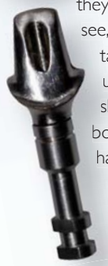
A dry run includes a complete set-up with the water saline bag, the doctor operating the pedals, explanations relating to the buttons on the machine, and the team learning how to set up the machine with the sterile bag and the lines feeding water to the handpiece.

For most dentists, the next barrier is typically around 50 implant cases. At that point, the doctor can experiment with more difficult cases, particularly in the anterior. By 50 cases, the muscle and mental memory is usually there and the third kata has been mastered.

FOURTH KATA: BACKUP PLANS

Some doctors use guided stents with implants. However, if there's an abundance of bone, dentists can place implants using their knowledge of the angles and the depths obtained through clinical evaluation and x-rays (including 3D cone-beam computed tomography scans).

Sometimes when dentists start working on a patient, they discover a perforation in the bone that they didn't see, or some other unforeseen complication. It's important to have a "back door" or "bailout plan" for those unexpected situations. All dentists doing implants should have a bailout plan, and that usually involves bone grafting (every dentist placing implants should have grafting material in their armamentarium).



If a dentist extracts a tooth and it has an abscess, I don't suggest placing the implant on the same day. Instead, clean out everything and then graft the extraction site and place the implant at a subsequent appointment—usually about three to four months later. Grafting helps doctors preserve the bone. At that point, the best thing a doctor can do is to remove the tooth because it's likely infecting the body, and it's important to preserve the bone.

With every implant case, I start out by telling the patient, "My goal is to get the implant in today. However, sometimes when I start working, I find something with the bone that's not conducive to placing an implant. Sometimes the bone anatomy just isn't the way I'd like it for the best outcome. If that happens today, then I'll treat that situation and maybe have to graft the area first, and then we will reconvene in about 12 weeks to put the implant in. That gives us a much higher success rate." It's important to prepare the patient for any contingencies that might arise during surgery.

FIFTH KATA: OBSERVATION

The fifth kata involves closely observing the implant over the next four months so you can address any complications that might arise during that time. After an implant and crown have been placed, there are three primary complications that can occur. Keen observation can help catch these complications at an early stage. Here are the three main ones to look for:

1. ***Cemented crowns vs. screw-retained crowns.*** Clean out the area thoroughly after cementation! In a large percentage of failures, the cement around a cementable crown is not retrieved or cleaned out and gets stuck subgingivally, creating peri-implantitis.
2. ***Make sure the occlusion is dialed in.*** The second most common complication with an implant is occlusion. A dentist must understand occlusion in the teeth and the anatomy of the crown.
3. ***Patient home care must be impeccable.*** Peri-implantitis can sometimes occur when the patient just doesn't maintain adequate home care around the implant. I highly recommend Waterpiks® to all my implant patients, and even to those who have all their natural teeth. Waterpiks®, in conjunction with brushing and flossing, do a wonderful job of maintaining dental hygiene.

Remember that, as with any new skill, practice is key to mastering implant placement. If you want to get better at something—anything—you have to keep at it. Mastering implants is no different. After you have practiced each kata thoroughly and made it part of muscle and mental memory, you'll get a sense of accomplishment. In addition, you'll likely feel a sense of contribution, a sense of pride, and a feeling of connection with the work you have just accomplished. With it comes the understanding that you're not in the tooth business, you're in the life-changing business, and implants can offer just that for your patients. ■

Dr. Jim Downs received a D.M.D. degree at Tufts University School of Dental Medicine in Boston, MA. He is an expert in comprehensive restorative treatment and has completed numerous full mouth reconstruction cases. He maintains an aesthetic, family-oriented practice in Denver, CO.

Tools of the Trade

Increase Precision and Productivity with Surgical Guides.

My career in the dental industry started when I worked as a dental assistant for about five years. As a dental assistant, I specialized in implants—I did all the implant surgeries with the dentist. So when I took a job with Arrowhead Dental Lab, it was a natural fit for me to join the implant department.

It's been about four years since I started in that role at Arrowhead, checking in cases and loading impressions, and now I work as the Guided Surgery/Implant Specialist, creating the surgical guides. Aesthetic Dentistry *asked me to discuss some details about my job and how the surgical guides may offer benefits to doctors and patients alike.*

WHAT IS A SURGICAL GUIDE?

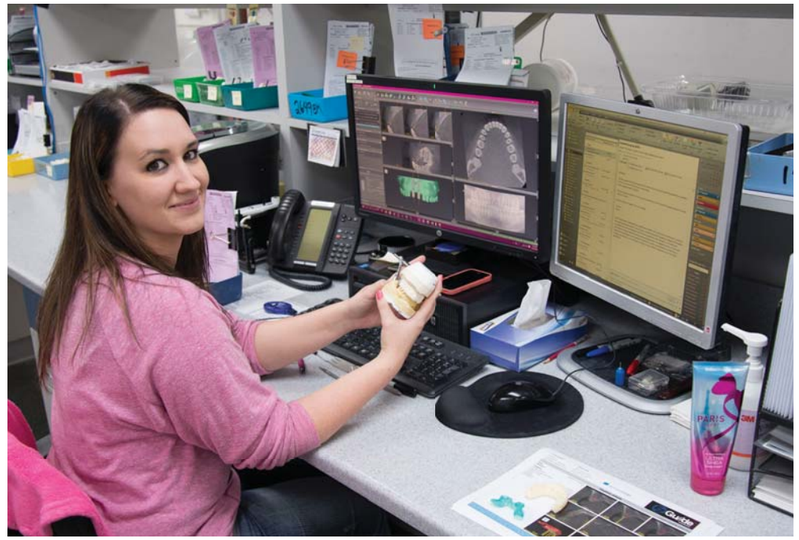
The surgical guide is exactly what its name suggests: it's a guide that doctors can use for implant placement and implant surgeries. It helps refine angulation and placement so that implant placement is precise.

It is incredibly beneficial for new doctors learning to place implants. But it's useful for more seasoned doctors as well, because of the predictability it offers.

When creating a surgical guide, Arrowhead uses cone-beam scans from the doctor. With the scans, we can see a 3D image of the patient's mouth, rather than just a 2D image available with an x-ray. The scans are great because we see all aspects of the patient's bone when we place the implants in the software—it gives the doctor precise implant placement. It also makes implant surgeries super quick and easy, therefore the doctor doesn't have to reserve so much time for surgery. With the surgical guide, he or she knows ahead of time exactly where the implants are going to be placed, and it limits the number of surprises that happen during the surgery.

The surgical guide is made from our 3D printers. It is made out of VarseoWax (the material used in the 3D printer), and fits similar to a night guard. Doctors slide it into the patient's mouth and it just pops into place. The actual guide has little metal sleeves that show where the implants are to be placed. The doctor also gets a printout showing where the implants are in the bone.

(Above) The image of the model shows how the surgical guide (clear), drill key, and sleeve all fit together for precise placement.



(Above) Mandi Fry, at her desk at Arrowhead Dental Lab, works on a surgical guide with the assistance of computer software and cone-beam computed tomography scans. Mandi works directly with dentists via phone and e-mail to help them use the surgical guides properly.

SIMPLIFYING THE PROCESS

In my previous job as a dental assistant, I worked with a dentist who did not use guided surgery. Instead, he just case-planned all of our cases, working off x-ray images. We lacked a 3D image, and that made the process somewhat more difficult and time-consuming.

For our implant surgeries, the doctor would do one drill, then stop and take an x-ray to see where we were at with that drill. Then he would do the next drill, stop, and take another x-ray to see where we were at with that drill. Once he got the implant placed, the dentist would take still another x-ray.

If the implant was in the proper position, everything was great. If not, we would pull the implant out and drill some more, and then continue the process (drill, stop, x-ray) until the placement was correct. This is a common process that many dentists follow when placing implants.

I wasn't aware of surgical guides until I started working at Arrowhead. With the surgical guide, the implant process is simpler and more precise. During the surgery, the dentist takes as many drills as he or she needs to, depending on the implant size. For example, if the doctor is doing a 3.0 implant, he or she may have a 2.0 drill, a 2.3 drill, and 3.0 drill (three drills).

The surgical guide helps doctors refine angulation and placement, so implant placement is precise.

With the surgical guide, the dentist puts the guide in, does all three drills, places the implant, and takes just one final x-ray to verify that the implant is where it should be. It's straightforward for the doctor and more comfortable for the patient.

HOW IT WORKS

Getting started with surgical guides is easy. Generally, the process begins with a phone call from a doctor asking about the implant guide. Then I send an information packet to the doctor with details about what exactly is needed to get started.

At Arrowhead, we request a cone-beam scan and models of whichever arch the doctor is working on. After I receive the models, I upload the cone-beam scan into my software, do a model scan, and merge those two files together. From there, I virtually place the implants in the software. After this preliminary work, I send the image to the doctor for approval. Although the process typically begins with a phone call, most of the subsequent communication is done via e-mail. E-mail is the easiest way to communicate because we usually send screen shots or photos back and forth.

There are a few different ways for the doctor to approve images. I can send the doctors screen shots, or I can arrange a GoToMeeting™ or TeamViewer meeting and the doctor can view the image of the implant guide in screen share.

With TeamViewer or GoToMeeting™, the doctor and I can review details of the case simultaneously. If the doctor has an iPad, he or she can download an application that will show the image on the screen.

The doctor can't make any changes to the image, but he or she can view it and rotate the pictures to see it from all angles. Then the dentist can call me and request any additional changes. Often, there is a back-and-forth discussion so the doctor can get a clear picture of the complications that might arise, and he or she can prepare in order to achieve the best outcome.

If doctors need help or have questions about the surgical guide, they can call and talk to me anytime.

Once the image meets the doctor's approval, the next step is to manufacture the physical surgical guide. That typically takes about a day. Then the surgical guide can be shipped to the doctor, along with the necessary drill key. This entire process has a relatively quick turnaround time. In three to five days, we can get the surgical guide on its way to the doctor.

Some doctors already have a drill key set from their implant company. If that's the case, I can build the surgical guide to fit ›

(Above) Several closeup images of the surgical guide, which used to be manufactured out of clear material (see photo, page 36), but now uses material that produces a teal-colored product. The surgical guide is manufactured to precise specifications for each patient.

those drill keys. If not, Arrowhead has a drill key set that we can send to the doctor. I always include an explanation of the order of the drill sleeves with the surgical guide and drill keys.

Arrowhead always provides personalized support for doctors. If doctors need help or have questions about the surgical guide, they can call and talk to me anytime. If they've never used a surgical guide before, I can walk them through the steps of how to use it and explain everything that they receive with the guide.

THE BENEFITS

The surgical guide can benefit all dentists who are placing implants. It's a great benefit to new doctors who are learning to place implants, but it's also useful for more seasoned doctors because of the predictability it offers. Using guided surgery, doctors can case-plan the case before they place an implant. With surgical guides, the dentist knows exactly where the implant is going to go. The following list includes some of the most beneficial aspects of a surgical guide:

1. ***It makes case planning more comprehensive.*** With my software, I can place an implant, an abutment, or a crown at the initial planning stage. When I send that to the doctor, he or she can see up front what the end result is going to be. From the very beginning, when a doctor tells a patient they are going to place an implant, the doctor can see what that crown can look like once it's placed.
2. ***It saves time.*** I work with several specialists who do surgeries every single day. These specialists are pros at placing implants and can easily work with or without a guide, but I often hear that they love the surgical guide because it saves them time. They can be more productive and work on more patients during the day than they could otherwise.

   The doctor I used to work for typically blocked out an hour and a half for implant surgery—*for a single implant.* With the surgical guide, doctors can reduce that time down to an hour or even a half hour. The doctor needs time to get the patient numb, put the surgical guide in the mouth, drill, put the implant in, and it's done! The guide makes the implant surgery quick and relatively easy.

> With surgical guides, the dentist knows exactly where the implant is going to go.

3. ***It minimizes surprises.*** As noted earlier, there are usually few to no surprises during surgery with the surgical guide. After reviewing the cone-beam scan, we can recommend up front if a patient needs a bone graft or a sinus lift in order to have room to put an implant in.

   When the doctor I was working with performed surgery, he would sometimes open up a spot and discover that there wasn't enough bone available. He would then have to tell the patient that a bone graft would need to be done, and that he would not be able to complete the implant as planned that day.

   If the patient agreed to the bone graft, the doctor would do the surgery and then the patient would have to let it heal before the doctor could place the implant as originally planned.

If doctors need help or have questions about the surgical guide, they can call and talk to me anytime. If they've never used a surgical guide before, I can walk them through the steps of how to use it.

4. ***It's easier to plan for finances.*** From a monetary perspective, if a dentist knows in advance that a bone graft or a sinus lift will have to be done, he or she can communicate that to the patient. The dentist can tell the patient up front that he or she will need to budget for bone graft surgery as well as the implant. It gives patients a more accurate cost and time frame. It helps everybody to prepare.

> The surgical guide is often used by specialists who are more than proficient at placing implants, because it simply saves them time.

5. ***It makes complex cases more predictable.*** Even with a full mouth restoration case, we can do everything from placing the implants to fabricating a temporary, all in that one stage. Doctors can go from implant surgery to an immediate denture, or to a temporary bridge or whatever they need.

Occasionally I hear some doctors warn that a surgical guide can become a kind of "crutch" for doctors who place a lot of implants. The idea is that after learning and practicing how to place implants, doctors should be able to work without the assistance of the surgical guide. I understand that perspective and agree that all doctors should be comfortable placing implants with or without the surgical guide.

But once a doctor has gained proficiency at placing implants, the surgical guide is a great way to develop his or her skills even more. As mentioned, the surgical guide is often used by specialists who are more than proficient at placing implants, because it simply saves time and allows them to be more productive during the day. These doctors can do more implant cases with the guide.

Without a surgical guide, doctors go into the surgery somewhat blind. They may know how to place implants, but without the cone-beam computed tomography scans and the surgical guide, they really don't know the specific details of the patient's mouth.

If a dentist gets into surgery and discovers that he or she has to do a sinus lift, or that there's not enough bone available, or that the bone density is too low to hold an implant, or if they hit a nerve—if any of these potential complications arise during surgery—the surgical guide can provide an early safety net. The surgical guide can help not only with the implant placement, but also with the overall treatment plan for the restorative side.

COSTS

There are additional costs associated with the surgical guide, but the majority of doctors find that it pays for itself in time savings. There's a base price for the guide itself, and then depending on how many sleeves we put in the guide, there's another charge for each sleeve. Drill keys (if needed) are an additional charge, but they are reusable.

Even if a doctor has done thousands of implants, it is always good to be prepared for any outcome. With the surgical guide, doctors know in advance what to expect during surgery, and with that predictability, doctors can communicate to their patients what they can expect during the procedure, so that the overall process is a smooth experience for everyone. ■

For more information about surgical guides, including how to get started with surgical guides, or for answers to any other questions, please contact Mandi Fry at Arrowhead Dental Lab at 1-877-883-2751.

Mandi Fry graduated from dental assisting school at Eagle Gate College in 2009. Since that time, Mandi has worked continuously in the dental industry, most recently at Arrowhead Dental Laboratory with the implant department. In her free time, Mandi enjoys spending time with her family and learning new things.

just my front six teeth. If patients have pictures of the smile they want, it can be helpful to show the doctor. But then patients should listen to the doctor if he or she recommends doing additional teeth to accomplish that goal.

3. ***The temporary crowns feel different.*** The temporaries look great and give patients a great idea of what their new smile will look like, but they don't have the smoothest feel. When patients get their permanent crowns, they're smooth.
4. ***Continue good hygiene.*** After getting my temporary crowns, I got a Waterpik® and regularly rinsed my mouth out. Patients should be prepared to keep up good oral hygiene habits, which includes brushing and using a Waterpik®.
5. ***Use clear mouthwash.*** Make sure to use mouthwash that isn't colored. Use clear or white mouthwash instead because colored mouthwash can stain the temporaries.

FOR DOCTORS:

1. ***Use a White Wax-Up.*** Some people don't know what they want until they see it. A White Wax-Up can help indecisive patients by showing them what's possible.
2. ***Set realistic expectations for your patients.*** Make sure you understand which smile the patient really wants. If a patient wants to look like the actress Julia Roberts and they only have four teeth, be honest with the patient and tell him or her that you'll get as close as you can to the desired smile, within realistic limitations.
3. ***Prepare your patients for the entire procedure.*** Make sure that patients understand that a full mouth or full arch restoration requires several appointments. It's not an overnight transformation—it is a process. Clearly explain that the patient is going to have his or her teeth for a long time, so you want to make sure they're absolutely perfect. It will require multiple appointments.

The changes to my smile were not overly dramatic. I wanted more of a subtle look so that it was still me, but a *better* me!

4. ***Understand a patient's likes and dislikes.*** Try to learn what your patient likes and doesn't like about his or her teeth. Clear communication between doctor and patient is key.
5. ***Fill out the medical prescription completely.*** When doctors fully complete the prescriptions (the size of teeth they want, etc.), it helps the lab technicians. Completed prescriptions clearly articulate the patient's desires and expectations and can expedite the process in the lab.

LOOKING BACK

In retrospect, the only thing I would have done differently is to have done it sooner! Looking back at my wedding pictures, I didn't smile as big or as pretty as I should have because I was self-conscious about my teeth.

Before I had my smile done, my sister even told me that I wasn't allowed to be in her wedding because I didn't know how to smile properly. It was just because I wasn't confident in my smile. Who wants to smile when they don't like their teeth?

What's more, the changes to my smile were not overly dramatic. I wanted more of a subtle look so that it was still me, but a *better* me. My restoration shows that it is definitely possible to make subtle changes and improvements to a patient's smile without making a huge change.

Because of my firsthand experience, I can better understand, help, and guide the process for doctors and patients.

Some patients want a bright white, television-news-anchor kind of a smile, but it's nice to know that there are many other options—not everyone has to go to that extreme.

The biggest difference my new smile has made in my life is in my self-confidence! I believe that when you look good, you feel good and you're happy! And because I looked good, I started to feel better, which made me happier in general. It was a boost to my self-esteem and to my confidence.

With that newfound confidence, my life is turning around! I've lost 40 pounds since having my teeth done. I got a Fitbit®, started watching my steps, and I'm enjoying life to the fullest. I feel more attractive, rejuvenated, and ready to tackle any obstacles in life.

In my professional role, I feel like I can represent Arrowhead well when I visit with doctors because my smile is everything I hoped it would be. Because of my firsthand experience, I can better understand, help, and guide the process for doctors and patients.

I spent many years living in pain and feeling embarrassed because of my smile. I knew that someday I would get my teeth done, and I am so glad that day finally came! The results surpassed all my expectations. ■

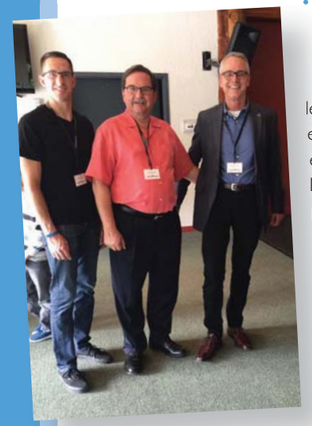
Diana M. Thompson graduated magna cum laude with a bachelor's degree in English from Utah State University in Logan, UT. For the past 10 years, she has worked as a copywriter and editor for the natural products industry. She has written for several newspapers and edited a variety of full-length books and booklets. She specializes in nonfiction literature, particularly for the healthcare industry. Diana can be contacted at dianamaxfield@gmail.com.

COVER STORY CREATIVE TEAM

AESTHETIC DENTISTRY: ***Dr. Jim Downs,*** Denver, CO
PORCELAIN RESTORATIONS: ***Roy L. Petersen,*** Arrowhead Dental Laboratory, Sandy, UT
PHOTOGRAPHY: ***Justin Grant,*** JustinGrantPhotography.com
HAIR AND MAKE-UP: ***Janelle Corey,*** Salt Lake City, UT

Change! As the Greek philosopher Heraclitus (c. 535–475 BC) noted, "the only constant is change." In terms of dentistry, technology has revolutionized the field and more changes are coming. Dr. Tysowsky (see *photo, below*) highlighted several dental trends, including:

- All-ceramic restorations
- Geriatric dentistry: a boom in aging populations
- High-technology: cone beam imaging, in-office scanning
- The growth of cosmetic and appearance-based dentistry



(Above, left to right) Wayne Ledford, Dr. George Tysowsky, and Erick Biehl from Ivoclar Vivadent.

Dentists should become leaders in their field to differentiate themselves in an ever-changing landscape. Dr. Tysowsky said that with the proliferation of treatment-planning choices, aesthetics-based options, continuing education, and enhanced clinical outcomes, today's dentists can offer better results for their patients than ever before.

EXPLORER: PUSHING THE BOUNDARIES

Dr. Mark Durham (see *photo, above right*), head of prosthodontics at the University of Utah Dental School, continued the theme of the future of dentistry by talking about exploring dentistry's potential. Dr. Durham said, "Being human is to want to chase the unknown—to explore. We are all explorers—innovative, collaborative explorers." With additional exploration to advance dentistry, more and more patients will benefit, and the quality and demand for good dentistry will increase.

Dr. Durham examined past dental explorers and discussed their contributions to the field of dentistry. Among others, he particularly mentioned the contributions of the Swedish physician and research pioneer Per-Ingvar Brånemark (1929–2014), the "father of modern dental implantology." Brånemark pioneered the process of osseointegration. According to L.B. Shulman and T.D. Driskell in "Dental Implants: A Historical Perspective," Brånemark's research yielded "one of the most significant scientific breakthroughs in dentistry since the late 1970s."

Dr. Durham also discussed the current status of hybrid prosthetics and how to advance exploration and bring costs down for patients, thereby making prosthetics increasingly affordable and beneficial to more people.

A SAFE HARBOR

Looking back on 40 years for Arrowhead Dental Lab, Dr. Dick Barnes said he couldn't have imagined that when he started the lab with one technician in Rialto, CA, it would grow to the size it is today. When asked about his success, Dr. Barnes said, "I honestly didn't aspire to it. It has just evolved. The only thing I ever aspired to in my life was to be a dentist and then to be the best dentist that I can. The rest of this just kind of happened along the way."

(Above) Dr. Mark Durham (right) from the University of Utah and Dr. Justin Kiggins (left) from Kiggins Family Dentistry.

Listening to the speakers at the symposium and connecting with outstanding dental professionals was an inspiring experience for many attendees. After the symposium, Dr. Nankin said, "You always pick something up at a symposium like this you never expected to learn. Interestingly enough, something as simple as making an implant confirmation jig intraorally and confirming fit on a model, rather than the other way around. Sometimes you look at a clinical situation from a different perspective and a light goes off, and you think, 'Why didn't I think of that?'"

Dr. Brittingham also enjoyed the symposium and said, "Arrowhead and the Dr. Dick Barnes Group has completely transformed me as a dentist and my life as a dental professional by giving me the guidance and support to do some truly amazing things with my dentistry and with my patients. To be able to support them in celebrating Arrowhead's 40th anniversary and to see and hear from the doctors and instructors who have transformed my life was a great honor."

Arrowhead thanks all the dentists and their teams who have made the past 40 years remarkable. We're looking forward to the next 40! ■

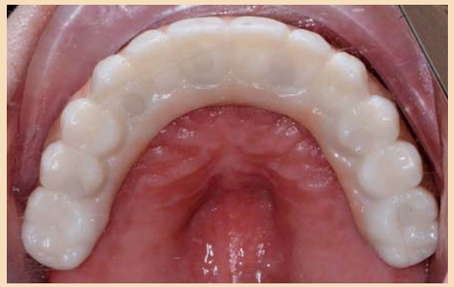


Figure 14: Postoperative Maxillary Occlusal View

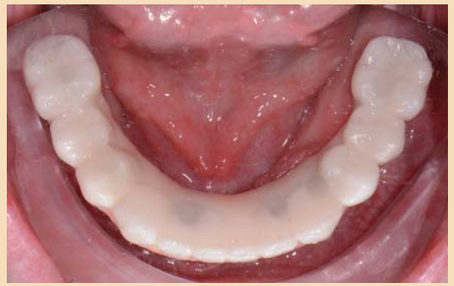


Figure 15: Postoperative Mandibular Occlusal View

Figure 16: Postoperative Full Face View

toughness and flexural strength, Ivoclar Vivadent's Zenostar® zirconia has the ability to withstand the functional stresses that full-arch implant restorations are subject to over time.

Unlike hybrid dentures, the entire body of the Zenostar® implant prosthesis (Arrowhead Dental Lab), including the gingival and tooth areas, is constructed from the same robust material. The strength and durability offered by Zenostar® is complemented by lifelike aesthetics and excellent translucency. The teeth of the prosthesis exhibit color very similar to natural dentition, and advanced staining techniques are used to establish gingival areas that blend well with the patient's soft tissue.

Within three weeks, the definitive maxillary and mandibular restorations were delivered from the dental lab *(see page 17, Figure 11)*. Utilizing a right angle prosthetic driver, both provisionals were removed and the definitive restorations inserted *(see page 17, Figures 12 and 13)*. Care was given to torque the retention screws according to the manufacturer's recommendations. I took another panorex x-ray to verify that the restorations were completely seated. Once confirmed, a piece of Teflon tape was placed into each access opening, followed by composite material *(see Figures 14 and 15, at left)*.

With the variety of different software and associated surgical instrumentation available, dental implant diagnosis and treatment has become more simplified.

Finally, I checked and verified the occlusion with the T-Scan® (Tekscan) to make sure that all the proper points of contact were in their ideal positions, thereby ensuring the longevity of the reconstruction. The patient no longer experienced pain and was very pleased with her new, enhanced, "whiter" smile *(see Figure 16, at left)*.

CONCLUSION

Computer generated 3D virtual treatment plans allow dental providers and their teams to accurately place dental implants efficiently and effectively. With the variety of different software and associated surgical instrumentation available, dental implant diagnosis and treatment has become more simplified. This development has created an interdisciplinary environment in which better communication and precise execution lead to better patient care and outcomes. ■

Dr. Ara Nazarian maintains a private practice in Troy, MI, with an emphasis on comprehensive and restorative care. He is a Diplomate in the International Congress of Oral Implantologists (ICOI). His articles have been published in many of today's popular dental publications. Dr. Nazarian is the director of the Reconstructive Dentistry Institute. He has conducted lectures and hands-on workshops on aesthetic materials and dental implants throughout the United States, Europe, New Zealand, and Australia. Dr. Nazarian is also the creator of the DemoDent patient education model system. To reach Dr. Nazarian, please contact him at (248) 457-0500 or www.aranazariandds.com.

offices develop these new skills into habits. Once the structures and strategies become habitual, offices really notice the difference in their bottom line.

7. ***Plan on regular training.*** Since turnover is an issue in every dental practice, regular training is crucial. But it's not just the new employees who benefit from the training—regular training also helps reinforce the knowledge for team members who have been with the practice for a while.

Trish has many goals for her role as a Practice Management Coach at Arrowhead Dental Lab. She plans to utilize her own personal strengths at developing relationships with patients and team members as she visits offices around the country. "I feel that my role is to first and foremost build relationships with dental practices and to help those practices get to the next level and the next level and the next level. For over 40 years, the proven structure of the Total Team Training seminars has worked for thousands of dental practices throughout the United States and beyond. I have seen it work in my own experience and also in the last 15 months in my travels. It is amazing to me how simple yet effective the structure is."

Trish continued, "I understand what dental practices have to deal with in the 21st century from a firsthand basis. I've become quick at diagnosing things, seeing potential problems, and providing solutions. It excites me to see the enthusiasm in the dental practices that I have the privilege of visiting. My ultimate goal is to help practices embrace the TTT structure, and as they do so say, 'the best is yet to come!'"

A BRIGHT FUTURE

At Aesthetic Dentistry, *we are excited to follow the progress of Glennine and Trish's partnership in the new Total Team Training seminars and coachings. As Tawana did in the past, both of these trainers will provide regular articles for the magazine on various issues related to dental practice management. Stay tuned for future articles that feature expert tips, real-world applications, and practical advice from this dynamic duo beginning in Spring 2017!* ■

Amie Jane Leavitt has been working as a professional writer and editor since 1999. During that sixteen-year time period, she has written and edited extensively for both online and print media. Leavitt has worked as a member of the Aesthetic Dentistry *editorial team since 2013 as one of the magazine's main copywriters and editors.*

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We make it **e.max®** so you can provide the high-quality outcomes your patients deserve.

ARROWHEAD

After her first season on "The Bachelor," Michelle Money came to us for an implant. Upon consultation, she decided that a full smile makeover was the choice for her. We utilized the material that 4 of 5 dentists would choose for themselves*, IPS e.max; due to its unsurpassed clinical success, esthetics, strength, and ease of use chairside.

Michelle before IPS e.max

Michelle with IPS e.max

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Your solutions provider with:

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- Dedicated technical support reps available to answer any questions you might have
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Dentistry by Dr. Jim Downs *American Academy of Cosmetic Dentistry survey December 2015

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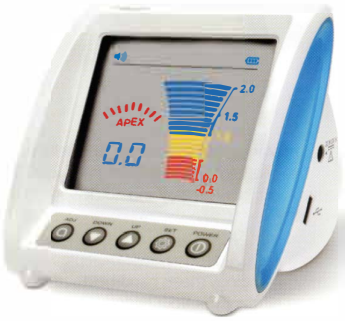

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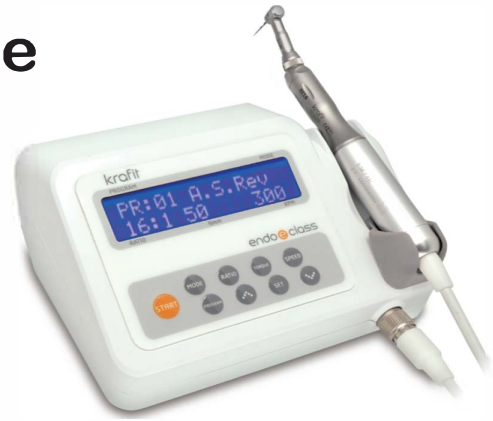

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