

# Aesthetic Dentistry

TECHNOLOGY AND TRENDS IN PRACTICE DEVELOPMENT

VOLUME 16 ISSUE 1 • WINTER 2017

## Case Analysis

*A dramatic makeover for tetracycline stains.*

## Be Our Guest!

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

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# New Beginnings

## The Time for Quality Dentistry Is Now.

**M**echanical watches have always fascinated me. The precision, the craftsmanship, the innovation, and the artistry in fine timepieces are inspiring. In many ways, I based my approach to dentistry on the same principles behind many of the world's finest watchmakers. Brands like Rolex®, Patek Philippe, Piguet, and Breguet, to name a few, are synonymous with an unrelenting commitment to creating the best products by using only the best materials.

I find an interesting correlation to dentistry in what was called the "Quartz Crisis" of the 1970s and early 1980s. This turbulent time in the watchmaking industry directly resulted from the invention and emergence of quartz movement. To keep time with very precise frequency, a quartz clock uses a small battery for power rather than an unwinding spring.

Quartz movement signaled a dramatic transition from mechanical watches to electronic timekeeping. Quartz watches began to replace the more traditional mechanical watches because they were cheaper and easier to make. Soon, these reasonably accurate watches flooded the market. They had all the functionality of a mechanical watch, but little of its original artistry. Many people said that the days of the mechanical watch were at an end and that no one would pay the prices required to produce the mechanical timepieces of the past.

In an online newsletter called *Timepiece Chronicle*, author Ben Newport-Foster writes that, "To say that the quartz crisis nearly destroyed the Swiss watch industry would be an



understatement. It wasn't a blip, it wasn't a restructuring, it was a devastation." However, the Swiss watch industry weathered the quartz movement. The mechanical timepieces, once thought to be going the way of the dinosaurs, are still available today.

**It's true that dentists must innovate and push themselves past what has been the standard of care in the past.**



*The secret to success for dentists in the coming years is the same secret that saved the artisan watchmakers of the past—innovation and a dedication to quality.*

Mechanical watches offer a direct counterpoint to cheaper quartz watches. How did the Swiss watch industry do it? Largely through innovation, artistry, and an uncompromising dedication to the best quality. Because of such focus, mechanical watches command higher prices than ever and continue to be in great demand.

In many ways, dentistry is currently facing a similar crisis. Today, we are practicing dentistry in an age of insurance-driven, "crowns-in-an-hour" corporate dentistry. The dental industry is becoming more of a commodity and a fee-for-service experience, and along with that there is a loss of artistry, craftsmanship, and quality that can't be mass-produced. This dilemma raises the question, "Are the golden days of dentistry behind us?"

My response to that question is an emphatic "No!" Just as the naysayers back in the '70s and '80s were wrong about the demise of the mechanical watch, so *(continued on page 8)*



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# All in the Family

A Mother and Daughter Team Up for a Full Arch Reconstruction.

Some people say that they inherited their good teeth from their mothers. Like those people, I definitely got my good teeth from my mother. But I can't say that genetics played a part. My mother, Aida Byrd, is the Ceramic Assistant Supervisor for Arrowhead Dental Laboratory in Sandy, UT. Last year, when the opportunity arose for me to get a full arch reconstruction, my mom literally made my teeth.

My mom has worked at Arrowhead for about 17 years. In 1999, she started in the waxing department. Afterwards, my mom worked her way up to an Elite technician, and she is now a supervisor. I think she is a rock star! I think you'll agree when you see the photos of the work she did on my teeth—they're perfect! When

America and working at Arrowhead was actually the third time my mom started a new life: the first was in Bosnia and Herzegovina, where she was born; the second was in Germany, where she fled to just before the Bosnian War broke out in 1992; and the third was in United States, where she arrived as a refugee in 1999.

In Bosnia, my mom grew up in Bosanska Krupa, a town where my grandparents still live. My mom traveled to Germany with my dad to visit some relatives because there had been rumors of the

Last year, when the opportunity arose for me to get a full arch reconstruction, my mom literally made my teeth.

Dr. Jim Downs, my doctor, placed the crowns, he didn't have any problems with them. He didn't have to adjust the fit, or fix the shape or size, or anything! They were perfect the way that my mom made them, which is awesome because she made them just for me.

## OUR FAMILY HISTORY

When my mom started working at Arrowhead, it signaled the start of a new life for my family. Moving to the United States of



(Above) Medina's family came to the United States from the town of Bosanska Krupa, which is located in the northwestern part of Bosnia and Herzegovina, on the Una river.

Before



After



war for a long time (although nobody really believed it). Two days after her visit, the Bosnian War began and its borders were on lockdown—no one could go in or out of the country anymore.

My mom got a job and worked to provide financial support for my family. During one period of time, my mom worked three jobs while she was pregnant with me. She sent money to our family in Bosnia to help them as much as possible.

My mom didn't get to go to college because the war interrupted her life. The war and unrest caused a huge shift in her direction.

My mom stayed in Germany for almost eight years and did not return to Bosnia except for brief visits. In 1999, my mom was granted refugee status to the United States. At the time, I was about 18 months old and my parents didn't speak English.

After moving to the United States, my mom discovered a program for dental technicians. The program director was from Denmark and was interested in helping European refugees. My mom was one of six attendees enrolled in the program, and dental technology soon became her passion. She loved the profession so much, she worked hard and was chosen as student of the year! The program director introduced my mom to Arrowhead and she applied for a job. A few weeks later, she was offered the job and she's basically been there ever since. It's amazing how my mom reinvented herself!

#### A LIFETIME OF PROBLEMS

With my mom working in the dental industry, she was able to help facilitate the reconstruction of my upper arch (more on that subject to follow). She wanted me to get my teeth done because they have been a problem for me for about as long as I can remember.

My teeth have always been very sensitive to hot and cold, and I was unable to eat certain foods because they hurt so much. Also,

**I didn't eat a poor diet, but every time I went to the dentist, I had at least five cavities in my mouth.**

I was sick a lot as a child. For several years when I was young, I had strep throat about every other month. As a result, my doctors prescribed a lot of antibiotics for me and I developed white and yellow stains all over my teeth.

I also got cavities very easily. I didn't eat a poor diet, but every time I went to the dentist, I had at least five cavities in my mouth. I was used to having dentists working in my mouth regularly. >





# Aesthetic Dentistry

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Warning: Reading about techniques, procedures, and materials in this publication does not necessarily qualify you to integrate the new techniques and/or procedures into your practice. Exercise caution as you are solely responsible for specific treatments and options for your patients.

## New Beginnings (continued from page 3)

too are those who say that the golden age of dentistry has passed. However, it's true that dentists must innovate and push themselves past what has been the standard of care in the past.

If you are a dentist who does the basic, "what-the-insurance-covers" type of dentistry, you will likely see greater competition and diminishing returns. The secret to success for dentists in the coming years will be the same secret that saved the artisan watchmakers of the past—innovation and a dedication to quality.

In a like manner, today's dentists must create a more dynamic practice, one that is not overly dependent on simply one aspect of dentistry. If you are a dentist who focuses on "basic" dentistry at the expense of large-case dentistry, implants, and other comprehensive approaches, then you are putting your practice at the mercy of insurance forces seeking to turn dentistry into a commodity experience.

The ability to do implants, large-case dentistry, appliance therapy, sleep dentistry, occlusion, and more can become a powerful means of differentiating your practice from others and escaping the forces that diminish your production potential. I have found that rarely does the ideal treatment for a patient encompass only one aspect of dentistry. The truly life-changing outcomes come about because the dentist draws upon various treatment modalities and brings them together in a seamless solution. The result is a patient whose life is dramatically improved and a dentist with higher levels of production and satisfaction.

### STRIVE FOR MORE

As a dentist, I never arrived at a point in my career where I thought I knew it all and could stop learning. For me, the refinement of existing skills in conjunction with the attainment of new ones was the lifeblood of my practice. Constant improvement of one's skills is the embodiment of "creating the best by using only the best."

Your skill set is the primary "material" with which you will create positive outcomes for your patients. Advances in equipment and material sciences are certainly helpful, but they can never make up for a lack of skill.

The advent of quartz movement didn't kill the mechanical watch as many had predicted. It did, however, require that such watchmakers innovate and establish a clear value proposition. To those who say that most patients aren't willing to pay for expensive dentistry, I offer the following: the Swiss watchmaking industry only produces about 1.7 percent of the world's timepieces, but it accounts for almost 58 percent of the value of the global market.

The reason for this is that they have invested in the skill, innovation, and commitment to excellence that is at the heart of creating value to the consumer. The same is true in dentistry. You don't have to have all your patients say "yes" to treatment. But by having the skills and presenting the best treatment to all your patients, you create a practice that has a powerful value proposition that drives not only increased production, but also offers increased satisfaction.

Expand your skills and offer quality treatment that frees you from the forces of insurance-driven dentistry. Patients want and will find ways to pay for quality and innovation. It is the beginning of a new year and the ideal time to recommit yourself and your practice on the path of excellence. ■



Before Images



When I was older I got braces, which I hoped would fix my teeth. But after I got the braces removed, I discovered that they had caused additional damage because my teeth were so sensitive.

My teeth also chipped easily and seemed to be deteriorating and getting smaller. One time, a molar broke when I was eating, but I didn't realize it until my mom pointed it out. Then one of my canines broke. That was even more difficult for me because it was visible when I smiled. I didn't want a broken front tooth!

My mom told me it didn't look too terrible and that I should wait before fixing it. It didn't need immediate attention, so I decided to wait. But I knew that a broken tooth was a problem that would need to be resolved eventually.

### A GREAT SURPRISE

What I didn't know was that my mom was working on a way for me to get my teeth fixed at Arrowhead. Arrowhead occasionally needs volunteers for the dental continuing education courses. Without my knowledge, my mom volunteered me as a patient and arranged for the procedure. When she came to me with her plan, I was so happy I almost started crying!

My teeth had caused some of my biggest insecurities in my life. I wasn't exactly sure what to expect from the upcoming procedure, so I didn't talk about it with anyone outside of my family. But I knew that fixing my teeth would be a life-changing experience.

Originally, we planned just to get my front six teeth done. We thought that the rest of my teeth would be fine. But after Dr. Downs examined my teeth and took some impressions, he noticed that several of my back teeth had cracks or chips in them. We decided to do ten teeth on my upper arch instead of six, so that the only teeth left unrestored were my back molars. Even though my mom works in the dental business, I didn't realize that anything like this could be done!

Dr. Downs is a great doctor. He was patient and thorough throughout the entire process. I had a lot to learn, and he helped me to understand how everything would work. For example, I wasn't sure about the temporaries at first, but Dr. Downs explained to me that they would be bonded to my teeth.

My mom did all of the ceramic work on my restorations. I left most of the aesthetic decisions in her hands, because I trusted her judgment. She made the decisions, showed me her work, and then asked if I liked them. She worked extra hard (even on weekends) to make sure my teeth were perfect. After all, she knew she would have to look at them every day!

### THE PROCEDURE

Dr. Downs started working on my mouth on the day of the first appointment. The main thing I felt nervous about was getting my mouth numb. However, once he numbed my mouth, I didn't have any problems. Prior to my appointment, I made a playlist that was long enough for the entire procedure, I put my headphones on and I never once felt uncomfortable. The assistants gave me a pillow and a blanket and kept me comfy all day.

The first step of the full arch reconstruction was a three-day process. Dr. Downs prepped half my mouth on a Thursday, then finished prepping and placing the temporaries on a Friday. I came in a third time on Saturday to get my bite adjusted. Dr. Downs was amazing, and so was his chairside assistant, Ciara Halbleib. He massaged my cheeks and cracked jokes so the process didn't feel like it was dragging on so much.

I didn't have any problems wearing my temporaries. I wore those for six weeks, so not a very long time. I know some people wear temporaries much longer.

When it came time to seat my permanent teeth, the process was once again painless. The worst part was when Dr. Downs cracked off the temporaries, because it's just a weird feeling. It sounds like they're breaking your teeth!

When my mom made my teeth for the restorations, she apparently messed up on something up on one of my front teeth, so she had to remake the tooth. But instead of tossing the old restoration, she thought it would be funny to keep it and play a joke on me.

Dr. Downs showed me my new teeth on a model, so I could see them before he cemented them. *(continued on page 39)*



*(Above, left to right) Dr. Jim Downs, Medina Baltic, and Ciara Halbleib (chairside assistant), after seating Medina's full arch reconstruction.*

# Designing the Dream



Ergonomics Helps Dentists Reach Their Potential.

**G**o buy 12 white shirts and 12 new silk ties." As a new dentist seeking to grow my practice, I called Dr. Dick Barnes in the 1990s and I'll never forget his advice. It was not what I expected. After a moment, Dr. Barnes repeated himself: "Go buy 12 white shirts and 12 new silk ties."

I hired Dr. Barnes as a consultant because even though I knew I was a great dentist, I didn't believe that my level of success reflected my skills. I expected him to tell me to do something about my dentistry. Instead, after I gave him a list of excuses for why I wasn't as successful as I thought I should be, Dr. Barnes looked across the table at me and told me to change my wardrobe.

**As a new dentist seeking to grow my practice, I reached out to Dr. Dick Barnes in the 1990s and I'll never forget his advice. It was not what I expected.**

I was not entirely convinced that his advice was the answer to my dilemma so I only partially bought into his suggestion. I purchased half a dozen shirts and half a dozen ties—in other words, half a commitment. Even though I was skeptical, when a guru tells you to do something, you do it!

Wearing my new clothes, I then did what Dr. Barnes suggested and presented comprehensive dentistry. Here's what happened: I became a better dentist and was wildly successful.

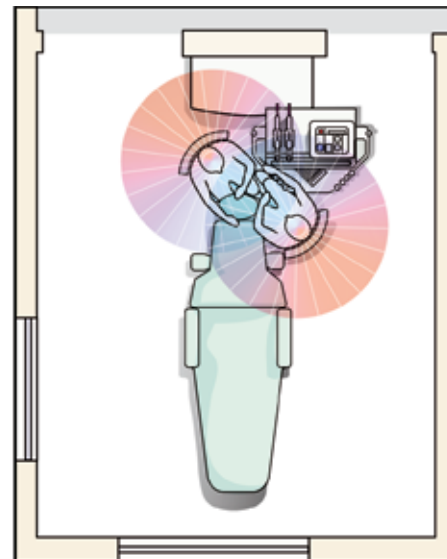
In fact, I couldn't physically deliver all the treatments for my patients. After a few years of high production, I wound up in physical pain. I was at the limits of the amount of dentistry that I could get done in the way I was doing it.

In the 1990s, I had asked Dr. Barnes to help "fix" my practice. After following his advice, I had so much success that I found myself seeking the advice of physicians about how to fix myself physically. Several physicians advised me to consider quitting dentistry because my health was reaching a breaking point.

Luckily, I didn't listen to them. The search for an answer to my health problems signaled the beginning of a study of health and performance that has lasted for more than two decades. From my studies, two significant things happened: first, I became healthy. Second, I became even more productive in my dental practice. It was a win-win situation.

When other dentists discovered my practice's success, they began to ask me for assistance. Most of them weren't experiencing the physical problems that I was, but many faced serious productivity and financial roadblocks. Originally, my goal in dentistry was to survive and feed my family. I didn't plan to start an additional company that would become the largest independent designer of dental offices in the country. But that's just what happened.

My company, Design Ergonomics, and its sister company, Ergonomic Products, offer industry-leading design services and high-performance dental delivery systems. Our goal is to help dentists achieve higher production with ergonomic solutions—design plans, clinical training, and office setups and equipment.



(Above, left) Dr. David J. Ahearn (D.D.S.) and Sue Ann Da Silva (dental assistant) perform a crown prep on a patient at Perfect Smiles in Westport, MA.  
(Above, right) This illustration shows the range of motion for doctor and assistant. Materials in blue are fingertip accessible. Obtaining materials outside this zone requires motions which slow production and may result in muscle strain.

## WHAT IS ERGONOMICS?

Ergonomics is the study of how people interface with machines and the application of improvements to address issues of health, safety, and efficiency. In other words, it's about making the most of how people work in their environment. Design Ergonomics develops equipment and offices to maximize productivity and comfort for practitioners and patients alike.

Dentists typically have a few misconceptions about using their instruments efficiently. First, dentists tend to think that handpiece placement is very important. Ultimately, however, handpiece use accounts for only about 7 to 10 percent of treatment time—a relatively small amount of the treatment time required for a productive dental practitioner.

Therefore, doctors have more flexibility with handpiece placement than they suppose. In other words, handpieces don't need to be placed right in the patient's face for maximum efficiency, because it is the worst place to locate them from a case-acceptance standpoint.

Trying to get patients to buy dentistry while they are forced to stare at terrifying devices is usually a bad idea.

A second misconception is that loupe focal length should be as long as possible. Declination angle is much more important to good ergonomic

(Left) The Universal Workstation consolidates all required materials and supplies within easy reach of both doctor and assistant for improved ergonomic health and increased productivity.



positioning than focal length. Fixating on extreme focal length creates many other problems. Most significantly, it displaces the dental assistant out and away from the operatory field.

The third misconception has to do with the use of belly bars for assistants. If your assistants depend on belly bars, it means your positioning is all wrong. When the doctor has the patient in the wrong position, the assistant is forced to hang over a "hook" (the belly bar), so as not to fall into the patient's lap. If an office depends on belly bars, it means the overall patient position needs to change.

## MAKING ERGONOMICS WORK

A dental office should be a beautiful and comfortable place, but it has to function properly for the dental team members, too. A lot of dental offices are poorly designed so doctors have obstacles to production. Such obstacles can be fixed. Often, dental practices can flow better without making any major changes. Simple changes of instrumentation can help speed up production. ➤



(Above) Sala Family Dental in Reno, NV. Dr. Jason Sala and Dr. Todd Sala approved an extensive addition that increased the size of the practice from 9 operatories to 27, in a minimal use of square footage.



When considering ergonomic changes at a dental office, start at a macroscopic level. In general, dentists tend to engage on the microscopic level—they want to know which gadget will solve a particular problem.

In contrast, start at the level of the overall flow of the practice—look at how everything functions together. Don't look at one particular problem or issue. It's always good to think about the practice on a bigger scale. For example, analyze how you get a room ready for the next patient. A typical office takes 10 to 15 minutes to reset a room for the next patient. The rate-limiting step is the time it takes for the disinfectant to work, which is four minutes. Therefore, it should actually take just four minutes to turn a room around.

## No one in dental school teaches the optimal way to set up an office, especially at a larger practice.

Analyze your practice and see how long it takes your team to reset a treatment room. Devise ways to shorten this frequent, predictable process, and it will free up time for other appointments.

The size of the dental practice doesn't make a difference in the ability to improve the overall flow; the *principles* of flow are

the same. However, a 3-chair office is different than a 15-chair office, and each requires distinct modifications.

Dental schools don't teach the optimal way to set up an office, especially at a larger practice. And most doctors don't understand how to scale up. At a certain point, a doctor may get extra associates in a five-chair office, and often they bump into each other until they realize, "This doesn't work."

I worked with a practice in Reno, NV, called Sala Family Dental (see photo on page 11). In this practice, Dr. Jason and Dr. Todd Sala approved an addition that increased the office from 9 operatories to 27, with minimal use of square footage. In addition, we incorporated consolidated sterilization and resupply, mobile technology and supply delivery, and treatment rooms that could be immediately converted from left-handed to right-handed. Because of these changes, Sala Family Dental can now accommodate many more patients.

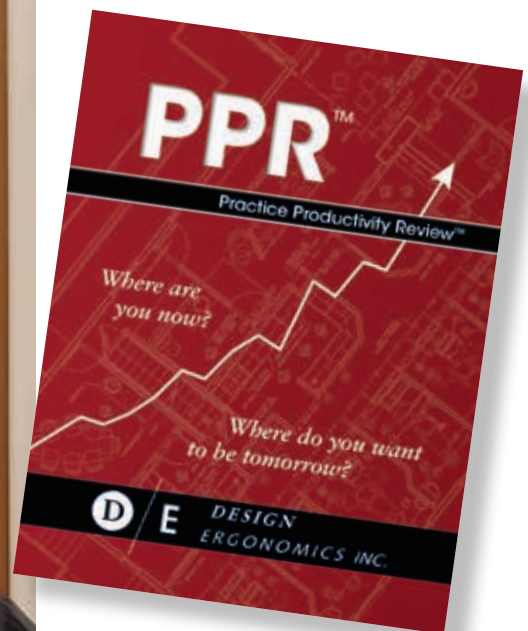
Many dentists who don't learn how to scale up settle into a solo practice. It isn't that a solo office is a great idea—in fact, it's an impediment to a lot of the technology that has become the standard of care. But some doctors just find so much "headwind" when trying to move forward that they simply stop trying.

### BENEFITS FOR DENTISTS

One of Dr. Barnes's mantras is to help dentists become better and more productive. I wholeheartedly agree with that



(Left) A treatment room at Johnson Family Dental in Santa Barbara, CA. The room is a good example of a visually appealing, non-threatening space. Creating a sense of spaciousness in an operatory reduces patient anxiety.



(Above) The Practice Productivity Review is a tool used to track a practice's progress. Production-per-hour is one of the key metrics that all dentists should know in order to strategize for growth.

philosophy. In a very practical way, my goal is to help dentists increase production. Typical performance for a dental practitioner is about \$450–\$460 per hour. My goal is to increase the doctor's productivity. It's worth noting that this metric (*production-per-hour*) is critical for a variety of reasons. Production-per-hour is comparable across every dental practice. It can be normalized based on procedure prices.

The Practice Productivity Review (see *image, page 12*), is one of the many tools I use to gauge a practice's efficiency. By tracking production-per-hour and other metrics, dentists gain a deeper understanding of the overall robustness of their practice. It can help dentists clarify and refine their goals for the future.

If a doctor becomes truly productive, he or she can do the same amount of dentistry they are currently doing in half the time. With the free hours, they can go to the gym or to physical therapy—or do more dentistry! Making progress is all about being able to get the work done better and faster. The more dentistry that gets done, the more lives that are changed.

### BENEFITS FOR PATIENTS

Based on our research, about one-third of all dentists report that they are not busy enough. But we've already established that most patients want treatment. So why the disconnect? Dentists often put up barriers, some of which may be unintended. Dentists should invest some thought and effort into how to make their dentistry acceptable for their patients.

Humans are visual creatures. When people walk into a room, they "read" that room in one tenth of a second—not in the frontal cortex of the brain (the "logic center") but with the limbic system of the brain, which deals with emotions.

Patients read a room as safe or unsafe. If a patient reads the exam room as unsafe, then the dentist has to do a lot of extra work to get patients in a frame of mind where they can start thinking about accepting the care that they need.

Dentists often don't understand this concept because they are accustomed to their office and don't view it as scary. But when a patient walks into an office that has a funny smell, and he or she hears frightening sounds and sees scary equipment, it's no wonder the patient doesn't buy the dentistry! Luckily there are ways to accommodate this perception.

The techniques involve simplifying what a patient sees upon



(Above) A relaxed patient in Dr. Ahearn's office in Westport, MA. Understanding the psychological impact of a clinical environment is critical to case acceptance.

entry to the operatory. Removing clutter from the floor and side-walls gives an operatory a greater sense of space. Locating the "scary" instruments out of a patient's initial view helps prevent a "fight-or-flight" reflex. Lighting also plays a significant role—an indirect, ambient light source is critical.

A while ago, a 16-year-old young woman with discolored anterior teeth visited my practice. She had been working a part-time job and saving her money for the last three years to afford treatment for her teeth. By the time I walked in and greeted her, she had already had four or five contacts with my office.

**Dentists must be aware that there are some trade-offs between patients' perceived comfort, aesthetics, and pure ergonomics. Those should be mediated.**

Sitting in the dental chair, she looked at me and said, "I've been to five different offices and this place just feels right. You are going to be my dentist." I didn't get a chance to tell her anything about how the ceramics were going to help or how wonderful my margins were. She made her decision because it just "felt right" to her. The patient opted in for treatment because of an environment for care that created a level of emotional comfort and security.

### INJURY PREVENTION

As I learned early in my career, ergonomic injuries are prevalent in dentistry. A lot of dentists (and their team members) experience physical discomfort. The injuries vary with the different positions in the practice. Dental assistants tend to have a lower incidence of injury than dentists, likely because dentists usually grossly underutilize their assistants.

Hygienists have a higher incidence of injury because they are doing more repetitive activity. Assisted hygiene (with a dedicated hygiene assistant) should be done thoughtfully, because with more patients, the frequency of repetitive stress injuries can ➤

## 3 Things to Simplify Your Design:

1. Remove clutter (especially from the floor and sidewalls).
2. Locate instruments out of a patient's initial view.
3. Use indirect, ambient lighting.





*(Above) In a dental practice, open cabinetry and clear-face bins allow staff to find supplies and gauge inventories at a glance. The use of pull-down shelving increases available space while enabling sound ergonomic principles.*

increase, too. I don't mean that it is a bad idea; it simply has to be done correctly. There is no real reason for hygienists to have higher incidence of injury than dentists.

Certain changes can be made to address these issues. One is much higher use of ultrasonic scalers, which can significantly reduce muscle strain. Another is to alter the sequence of the hygiene appointments to increase flow.

### TIPS TO GET STARTED

Doctors often tell me, "I want to just fix one room." Rather than starting with redesigning a room, I suggest changing the way you do things. Again, analyze the overall workflow. Think about everyday tasks that are wasteful—wasteful of time, effort, and resources. Eliminate anything that is unproductive.

Initially, I almost always advise dentists to reposition the doctor and assistant. Specifically, change their position to give

the assistant better access to the patient, which will improve the assistant's performance.

Second, get all of your supplies in close proximity. In virtually all dental practices, the assistant spends a lot of time on "go and gets" within a procedure—the assistant has to get out of the field to retrieve needed materials.

Every time a team member is not working directly on the patient's mouth, the procedure takes longer for the patient, and it's worse for the tooth, too. The assistant has to reach all over the place (which is another reason they use belly bars) to get supplies that are behind them, or in drawers, or somewhere else.

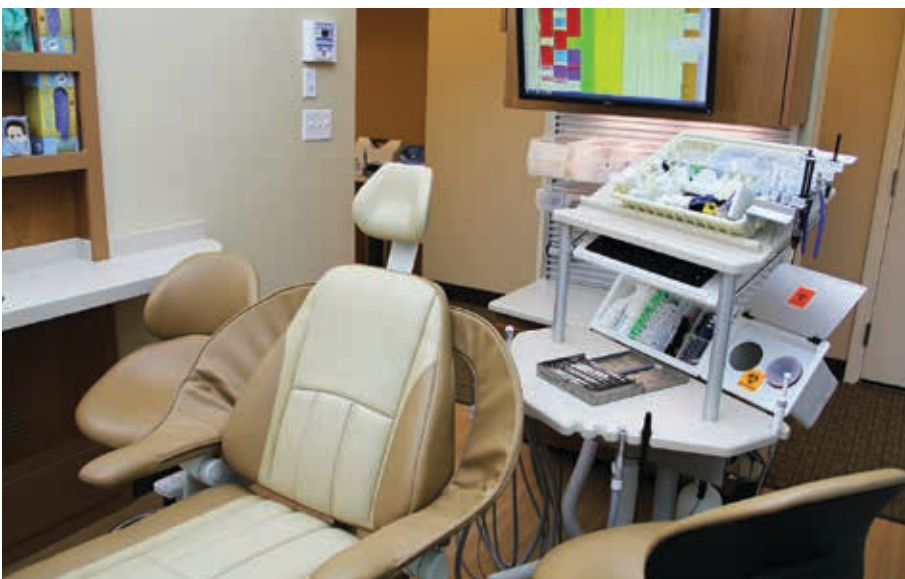
It's better for the patients and for the team's overall productivity to limit the time spent reaching for supplies, and instead spend more time on the actual treatment.

Many doctors tell me, "I've got so many supplies, I can't have them all near me." This is simply wrong—and addressing this fallacy presents a huge opportunity to improve both practice productivity and health. It's all part of the science of deployment.

This was one of our key early discoveries, and came into focus when I began studying the Toyota Production System and LEAN manufacturing. I found out that with some forethought (and a patented design or two), we could position a full 10 days worth of all supplies and consumables within an ergonomically healthy reach of both doctor and assistant.

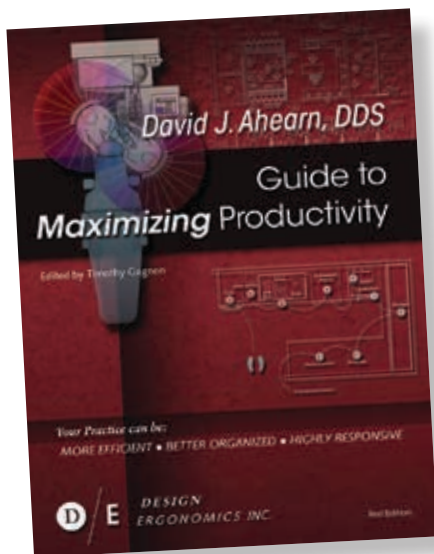
These supplies were stored in modular bins and tubs (see *photos, above*), and specifically prepared to accommodate our most common procedures (roughly 90 percent of dental treatments).

Supplies for less frequent procedures were kept in separate tubs and deployed as needed. The fact that these tubs leave the operator for restocking allows for a centralized resupply area, where it is much easier to control and maintain inventories.



*(Above) The tub and bin on the Universal Workstation are removable to allow weekly restocking at a central resupply area. These units can be set up and stocked according to the needs of each practice.*





*(Left) Dr. Ahearn offers a training manual for maximizing productivity. It offers practical advice and tips you can implement immediately to increase productivity in your practice.*

#### MY LIFE'S WORK

When I began this work over two decades ago, I was simply passing along my newfound knowledge to other

dentists. Building a successful company wasn't my intention, but something I did in my spare time.

Eventually, I built an organization around that knowledge. It was at least five years before I fully realized that I had a design company! The principles that Dr. Dick Barnes introduced me to and my subsequent discoveries have essentially become my life's work.

For me, my dental practice is now where I go to relax. After a busy day of business meetings, it feels amazing to practice dental work. I do everything I possibly can to get to my practice every week—it's truly my happiest time. At my practice, I help people have dream weddings, get new jobs, and restore lost

self-esteem. It's such an honor for me to do that for my patients on a weekly basis.

In addition to helping patients, I'm also a "test pilot" for new equipment and techniques. My design company is constantly innovating and looking for different ways to advance the industry. As a result, I get to create smiles for people while testing and refining the technologies and tools we develop.

Too often doctors are a bit short on the vision side of things. They miss tremendous opportunities. We have the greatest profession in the world! I don't think enough doctors appreciate that, in part because dentistry is so stressful for them. I want every doctor to enjoy dentistry as much as I do. It can start with something as simple as changing your wardrobe or as comprehensive as changing your life. It's up to you to start today. ■



*David J. Ahearn, D.D.S., is a practicing general dentist in Westport, MA. He is the president of the office design firm Design Ergonomics, which specializes in creating high-productivity practices throughout North America. He was a founding member of the ADA's Ergonomics and Disability Subcommittee, and is a nationwide lecturer and contributor to numerous dental publications. He can be reached at [www.desergo.com](http://www.desergo.com).*



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## ARROWHEAD

# Tackling Tetracycline Stains

## A Full Mouth Makeover.

**T**etracycline has been on the market for more than 60 years and is used in the treatment of many gram-negative and gram-positive bacterial infections. If used for children under the age of eight years old, it causes permanent staining of the teeth.

*The tetracycline staining was severe throughout the patient's entire dentition, which can be a challenge for treatment from an aesthetic perspective.*

Tooth staining/discoloration with tetracycline is influenced by the dosage used, length of treatment or exposure to the antibiotic, stage of tooth mineralization (or calcification), and degree of activity of the mineralization process. The discoloration is permanent and can vary from yellow to gray or brown.

A 48-year-old male patient with tetracycline staining visited my office with a chief complaint of failing veneer restorations that were placed eight years ago. The patient had veneers placed

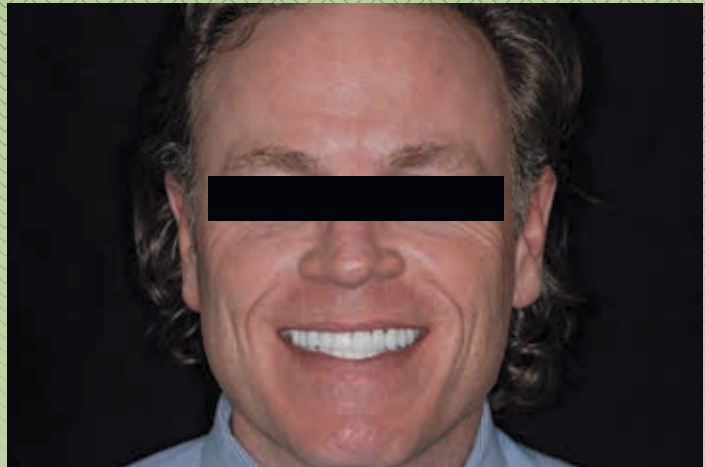


(Above) Figure 1: Preoperative View

BEFORE



AFTER



(Above, left to right) Figure 2: Preoperative Full Face View; Figure 3: Postoperative Full Face View

over the maxillary anterior eight teeth to cover the unsightly appearance. The tetracycline staining was severe throughout the patient's entire dentition, which can be a challenge for treatment, from an aesthetic perspective.

The patient has professional responsibilities that require him to be in front of people, so his smile is critical to his self-esteem and professional success.

## THE EXAM AND WORKUP

After x-rays and an intraoral examination, the patient showed gum recession, chipping and breaking of the old veneers, and incisal edges that were fracturing and breaking (see Figure 4, at left).

To determine viable treatment options, I performed an occlusal diagnostic review. The patient showed a healthy vertical dimension, with a Shimbashi measurement of 18 mm. The patient did not complain of headaches, joint pain, jaw popping, or sleep apnea symptoms, so he was asymptomatic with regard to such issues.

After utilizing a T-Scan® bite analyzer (for occlusal force and timing), I found that the patient was hitting extremely hard on his front anterior eight teeth. The T-Scan® confirmed that his initial occlusal contacts were distributed heavily in front, before the posterior teeth made contact.

I diagnosed the patient with anterior entrapment, which was causing his front teeth to wear down and explained the chipping, breaking, and recession on the anterior teeth. A simple palpation on the labial surface of his front teeth would elicit fremitus.

Because the patient's jaw joint tested asymptomatic, he was a straightforward full mouth rehabilitation case. Proper full mouth impressions that captured his full oral anatomy (hamular notches and incisal papilla) were taken.

As seen in the initial retracted photo (see Figure 5, at left), his anterior occlusion could be considered end-to-end. I ordered a full workup to adjust the anterior occlusion of his upper eight and lower eight teeth, and to replace the missing molar.

I decided to create long centric in the anterior—taking the pressure off the anterior teeth by creating freeway in an anterior-posterior slide. To check for this, ask your patient to bite on their back teeth. Ask if the patient can slide the lower teeth a bit forward before bumping into the anteriors. If so, the patient has “freedom in centric occlusion” (also known as long centric). Remember, centric occlusion is another term for intercuspal position (ICP). ➤



(Above, top to bottom) Figure 4: Preoperative Retracted View, Biting;  
Figure 5: Preoperative Retracted View, Biting





(Above, top to bottom) Figure 6: Preoperative View, Biting;  
Figure 7: Bite Registration Jig

Photography of the patient showed three points of correction for the maxillary canting: 1. Establishing a new *pitch* (the AP direction of the maxillae and the anterior teeth), 2. A new shift or de-canting of the occlusal plane (the *roll*), and 3. The *yaw*, a shift of the entire upper maxillary plate from left to right. I requested that these issues be accounted for in the wax-up from the lab.

The patient and I discussed the new width and length of the central incisors. A full mouth periodontal screening (probing) of the dentition was performed so that if I needed to do tissue corrections, I would know how much tissue we could remove. Information was communicated to the lab about the new gingival height and zenith of the front anterior six teeth, along with a new tissue-corrected Shimbashi.

After assessing the patient's features, I always determine if a patient is brachiocephalic, mesocephalic, or dolichocephalic so I can communicate whether or not the occlusal anatomy should be flat or animated for the wax-up. The patient was determined to be brachiocephalic, so I requested flat anatomy from the lab for the wax-up.

Also, in the occlusal design, I wanted to create a cuspid protected occlusion, which is a cuspid rise and protrusive rise. In every full arch or full mouth case, I want to create a cuspid-protected occlusion in the wax-up. If there are any diastemas to close, that is also mentioned. This particular patient had diastemas in the posterior of his mouth.

The patient was presented with the treatment strategy that included creating a new dentition that would allow him to move

outside the constraints of his worn dentition and would preserve his teeth for a lifetime. After the case presentation, which included showing the patient the wax-up (which the patient paid for), the patient accepted treatment and was ready to proceed.

## THE PROCEDURE

Dentists are sometimes hesitant to prep full arches because they typically do not have a structured plan. Preparation of the dentition is extremely important, particularly in recording and maintaining the bite registration. The bite registration jig (provided by the lab) is a very important lab communication tool for maintaining or changing the vertical dimension (see Figure 7, at left).

A prepping sequence is vital to keeping what I refer to as the *vertical stops*. For example, if all 14 upper teeth are present, the first sequence is to prep teeth numbers 3 to 6, followed by teeth numbers 11 to 14.

At this point in the procedure, I take a sitting up bite registration with the bite jig. The bite jig matrix creates repeatable centric occlusal positioning when relined. The tripod of centric stops are the most distal teeth bilaterally and the anterior incisors. These teeth should be prepped after the bite jig has been relined, showing prepped teeth numbers 3 to 6, and 11 to 14 as new vertical stops (see *preparation checklist*, page 20).

## ANTERIOR PREPPING CORRECTION

In prepping the anterior six teeth (numbers 6 to 11), I utilized the Brasseler 5856 diamond. It is a different pitch of the diamond to flare the anterior maxillary when prepping, which typically is more of a reduction on the lingual surface. Having to remove the older veneers, I changed the axial inclinations and created a better anterior overjet instead of an end-to-end anterior bite (see Figure 1, page 16, for the anterior prep and the noticeable striations of the tetracycline intrinsic stain).

For materials to mask the tetracycline stains, I decided on the IPS e.max restorations for teeth numbers 5 to 12, a 3-unit PFM bridge, and full coverage metal crowns on the posterior second molars.

## SEATING THE RESTORATIONS

The sequence for cementing a full arch after try-in of all restorations went as follows:



(Above): Figure 8: Postoperative View Closeup



(Above, top to bottom) Figure 9: Postoperative View Closeup;  
Figure 10: Postoperative Retracted View, Biting

1. **Cementation of posterior molars.** Started with right side, cementing molars with Multilink® Automix from Ivoclar. Allowed for proper curing time before placing rubber dam clamps.
2. **Placed rubber dam** and sealed off palate.
3. **Cleansed teeth** with Consepsis®, rinsed, and lightly dried.
4. **Acid etched teeth**, rinsed, and lightly dried.
5. **Applied Telio CS desensitizer** from Ivoclar, lightly dried.
6. **Applied adhesive** to tooth structure, multiple coats.
7. **Applied Variolink® Esthetic** light shade veneer cement to restorations.
8. **Placed restorations** shy of fully seating.
9. **Fully seated one restoration** at a time, and spot tack cured at the gingival margin for three seconds then continued to next tooth, tack cured and so on. Once all restorations were tack cured, I gently wiped away excess cement from the lingual surface with a cotton roll, starting incisally towards the gingival margin.
10. **Visually checked** the lingual margin to assess full seating of restorations.
11. **Wave cured** over all restorations for two seconds. Gently removed excess cement. Applied DeOx® from Ultradent at the margins. Fully light cured for 20 seconds (oxygen inhibitor).
12. **Removed all cement** and flossed interproximally.
13. **Finalized occlusion** after 48 hours using a Tekscan® for time and force (see Figures 8, 9, and 10).

## QUALITY MATERIALS

A literature review (five external studies and one internal Ivoclar study) of longevity and clinical performance of IPS e.max restorations revealed favorable clinical results. IPS e.max Press are biocompatible lithium disilicate glass-ceramic ingots. They offer the fit, form, and function which is expected from pressed ceramics. In addition, they offer *flexural strength* of 470 MPa and resilient fracture toughness.

**The results are subtle enough that the restorations look natural, yet it is a dramatic and noticeable improvement in function and aesthetics.**

With *optimized aesthetic properties*, creating all-ceramics restorations that offer true-to-nature results has never been so easy. In the literature review, pressed ceramic e.max and CAD e.max were compared. Clinical recall at 28 months after luting with a light polymerized resin cement showed a 97 percent survival rate for the e.max CAD and 98 percent for e.max Press. The clinical accuracy of the marginal fit for both e.max CAD and e.max Press are excellent.

Lithium disilicate is becoming the restorative material of choice for single-unit indirect restorations, with a range of strength of 360–500 MPa. This is a dental aesthetic material that I have been waiting for! It offers maximum strength, superior esthetics, higher-edge strength (finishing thinner), and ease of luting to teeth.

Overall, e.max is a trusted material when masking color or stains is a top priority! And in today's dental environment, patients are the most important priority.

## RESULTS

The patient was elated with the results of his new smile. Since completion of the case, his confidence level has reportedly increased dramatically. People have responded by saying, "Wow you look great! You look vibrant!" The results are subtle enough that the restorations look natural, yet it is a dramatic and noticeable improvement in function and aesthetics. ■



*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. Dr. Downs is an instructor for several dental continuing education (CE) courses for the Dr. Dick Barnes Group, including Implant EZ, Full Arch Reconstruction, and more.*

# Materials for Preps

1. X-rays
2. Lab slip with smile evaluation & color map
3. Before pictures (AACD Series)
4. Reduction guide stint
5. Provisional matrix
6. Picture with bite stick
7. Models and wax-up

## Ultradent® 800-552-5512

1. Seek (caries indicator)
2. Consepsis® (chlorhexidine antibacterial solution)
3. PermaSeal® (composite sealer)
4. Blue Micro® Tips #127
5. Microbrush tips #1169 (black mini)
6. Ultra-Etch®
7. ViscoStat Clear
8. Micro 20 gauge tips #1252
9. Metal dental infuser tips #125
10. Clear plastic syringe #124
11. Topical (Walterberry®)
12. Black micro FX tips #1357

## Ivoclar/Vivadent 800-533-6825

1. Chromo scope shade guide and stump guide
2. Systemp C & B Shade A, Bleach XL
3. Systemp Flow Shade A, Bleach XL
4. Systemp desensitizer 5g bottle
5. System link temporary cement - transparent
6. Virtual light body impression material
7. Virtual heavy body impression material (Pentamix™ compatible)
8. Analysis by Gérald Ubassy (recommended book)

## Brasseler 800-841-4522

1. Black Diamond #5856-33-018 & #5856-33-014
2. Gold fluted #7901
3. Gross reduction #1958
4. Mosquito diamond #8392-016
5. Red flame diamond #8862-010
6. Egg shape diamond #6836-016
7. Chamfer green diamond #6878k-018
8. Endosequence post system
9. 330 Carbide
10. #4 Round (slow speed)
11. #4 Round (slow speed)
12. Green chamfer diamond 6878K-016
13. Perforated diamond disc #952-100
14. Mandrel for diamond disc #019667U1
15. Diamond disc #945B100

## Local Dental Supplier

1. Alginate impression material
2. Marcaine, Septocaine®, Lidocaine, Mepivacaine
3. Needles (short & long)
4. Metal trays - upper & lower arches
5. A & B mixing wells
6. Articulating bite paper

## Arrowhead Dental Laboratory 800-800-7200

1. Border-Lock® impression trays (assorted sizes)

## Centrix 800-235-5862

1. Micro brushes (yellow and pink)
2. Benda brushes (red and green)
3. ProxiDisc separator

## Miltex Dental 866-854-8300

1. Indian head exam mirror (2") #01124507

*Send patient home with post-operative instructions for home care.*



# Materials for Insert

## **Ultradent® 800-552-5512**

1. Consepsis® (chlorhexidine antibacterial solution)
2. Ultra-Etch®
3. Blue Micro® Tips #127
4. DermaDam® (rubber dam)
5. Microbrush tips #1169 (black mini)
6. Micro 20 gauge tips #1252 (for De-Ox®)
7. Clear plastic syringe #124
8. Metal Dental-infusor tips #125 (peroxide scrub)

## **Ivoclar/Vivadent 800-533-6825**

1. Systemp (desensitizer)
2. Variolink veneer cement
3. Speedcam - translucent
4. Multilink Automix
5. Liquid strip (oxygen inhibition)
6. Monobond Plus
7. ExcITE bonding agent (single dose)
8. OptraStick

## **Brasseler 800-841-4522**

1. Porcelain polishing points (blue #W16DG21, Pink #W16DM21, Grey #W16D21)
2. Porcelain polishing cups (Blue #W17DG21, Pink #W17DM21, Grey #W17D21)
3. Egg shape diamond #6836-016
4. Mosquito diamond #8392-016
5. 330 Carbide
6. Perforated diamond disc #952-100
7. Mandrel for diamond disc #019667UI

## **Local Dental Supplier**

1. Rubber dam clamps (Hu-friedy #100/bi-cuspid clamp, #4/molar clamp), rubber dam punch, rubber dam frame, rubber dam clamp holder
2. Dry angles (dry tips size large)
3. Peroxide 3%
4. Floss
5. Super oxal (for bleeding control)
6. Mixing wells
7. 2x2 Gauze
8. Cotton rolls
9. Articulating paper for bite adjusting - AccuFilm®

## **Centrix 800-235-5862**

1. ProxiDiscs smooth both sides (use to open bonded contacts)
2. Benda brushes (red and green)
3. Microbrushes (pink and yellow)

## **Arrowhead Dental Laboratory 800-800-7200**

1. Veneer organizer tray
2. Wax up
3. Before pictures
4. Smile evaluation & color map
5. Lab slip
6. Die models & hard models from lab
7. Porcelain veneers & crowns
8. Provisional matrix (used for temporaries)

# You Can Count on Me

## Building Relationships of Low Fear and High Trust.

**D**r. Dick Barnes has often said, “People do business with people they like and trust.” In terms of dentistry, building relationships of low fear and high trust are important across many levels: doctor-to-patient, doctor-to-team member, team member-to-patient, etc.

Patient relationships that are built on trust are important because in the absence of fear, patients will trust the doctor and proceed with treatment. When a dentist has a high level of trust toward his or her team members, those team members can project confidence to patients.

Most successful dentists learn that projecting trust and eliminating fear are skills that they can develop and master. Once these valuable skills are mastered, dentists can train their team members to do the same.

Several years of working in the dental industry has taught me a number of behaviors that can foster relationships of high trust. These behaviors usually begin with the dentist. However, many dentists experience common fears that can hold them back from



*(Above) Dentists who are confident in presenting comprehensive dentistry engender a high level of trust among their patients and team members.*

developing high-trust behavior patterns. If left unchecked, fears can develop into habits that are especially challenging to break.

### FEAR-BASED BEHAVIORS

The first step to overcoming fears is to identify them. Dentists should identify any internal fears they have so that

they can be mitigated. After visiting dental practices around the country, I've noticed three common fears:

### **1. Fear that comprehensive treatment is too difficult.**

Comprehensive dentistry can be intimidating for doctors on many levels. Sometimes a dentist's fear is that he or she doesn't have the skills needed for implant dentistry, full arch reconstructions, or other treatments that may be necessary for comprehensive treatment.

If you honestly evaluate your skills and feel you need more training before presenting comprehensive dentistry, think about taking that step. At the very least, dentists have little to lose by taking continuing education (CE) and determining whether implant dentistry or full arch dentistry are procedures that will benefit their patients and bring their practice to a new level.

Taking CE can be helpful in overcoming a fear of large-case dentistry. The Dr. Dick Barnes Group offers many CE courses to help dentists become better and more productive. Building your skills helps refine the quality of your dentistry. And when you and your team members believe in your dentistry and can offer more types of treatment, you will have more referrals and keep more revenue in house. Therefore, keep learning and be confident in the quality of your dentistry.

It's a mistake to dismiss comprehensive treatment as too difficult without investigating whether or not it's something for you. Don't simply assume that comprehensive dentistry is something that patients in your area don't want or need. Delivering quality dentistry and adding to your skill set enhances your reputation as the best dentist in town.

### **2. Fear of presenting comprehensive dentistry.**

Even dentists who have refined and advanced skills can miss out on opportunities to help their patients if they don't present comprehensive dentistry to every patient. Every patient deserves the opportunity to get the best care possible, but it's extremely common for dentists and team members to pre-judge patients and the likelihood that they will accept the optimal level of care.

To change this behavior, dentists first need to acknowledge the problem. Think about the process in your practice when you visit with patients. Do you pre-judge patients or do you present the same high-quality level of dentistry regardless of your perception of a patient's ability to pay?

If dentists only present treatment that they think the patient will accept, it can result in "patchwork" dentistry (only presenting dentistry for one or two treatments to avoid financially or emotionally overwhelming the patient) or "watching" (waiting for a problem area to get worse before recommending treatment)—neither of which are in the best interest of a patient's health or functionality.



Dentists have a moral and ethical responsibility to let their patients know what they recommend after a thorough and comprehensive examination; it is the patient's choice to move forward or not.

**Patient relationships built on trust are important because in the absence of fear, patients will trust the doctor and proceed with treatment.**

During the years that I worked in a dental practice, I saw many patients who were frustrated because they came to our office after receiving patchwork dentistry somewhere else. Countless times, I heard patients say that they wished they had been told about a problem and its potential consequences before it worsened, when they possibly could have saved a tooth or two (or more), saved money, and understood the overall diagnosis.

Think about how you approach case presentations in your practice. Do you present comprehensive dentistry or only what you think the patient will accept? If it's the latter, start changing that behavior and presenting comprehensively. You'll likely be surprised at how many patients appreciate learning about the bigger picture.

After presenting comprehensive treatment successfully, a third fear sometimes needs to be addressed—the fear of the patient's potential response.

### **3. Fear of rejection.**

To successfully treat comprehensively, dentists sometimes need to overcome a fear of rejection. A simple way to do this is just to remember that a patient's condition is never the dentist's fault. If a patient cannot immediately move forward with comprehensive treatment, it is not necessarily an outright rejection. ➤



An initial rejection can mean that the patient isn't quite ready to say "yes." But with patience, a "yes" may be forthcoming. If a case presentation is not accepted, it's usually because of a patient's unique circumstances—and you never know when someone's circumstances may change.



To retain patients in your practice (and keep the possibility of case acceptance at a later date), make patients feel welcome regardless of their reason not to move forward.

## When patients consistently have a positive experience, they trust dentists and their dental practices.

I recently met with a dentist who felt uncomfortable presenting a comprehensive treatment plan for a particular patient. He worried the patient would reject treatment because he had bought his practice from a dentist who did not present comprehensive dentistry. The dentist worried that patients would have "sticker shock" over the treatment fee.

In this example, the dentist should have asked, "How would this treatment benefit the patient? Is it the function, overall health, absence of pain, ability to smile confidently, or all of the above?"

Instead of focusing on the dentistry's benefits, he prepared himself for rejection. He had attended the private Total Team Training (TTT) and received some verbal skills, but he was still nervous to present the case. When the diagnosis

appointment approached, he focused on the benefits for the patient and he presented the treatment comprehensively. To his great surprise, he successfully closed on treatment.

It's important for all dentists to switch their focus from a negative perspective to a positive one. Remember that you can change your patients' lives through dentistry—but they have to be given the chance to say "yes."

After that experience, the dentist said, "Even though I had doubts, I did what was best for the patient and presented ideal dentistry. When I changed my focus from worrying about rejection to focusing on providing the best possible care for the patient, my whole perspective changed."

Don't take rejection personally, and always keep the patient's well being in mind. Continue to stay positive regardless of the outcome and move forward—and just as it happened for this dentist, the results may surprise you.

### HIGH-TRUST BEHAVIORS

Once you've identified your fears and how to overcome them, you can work on building high levels of trust with your patients and team members. A great way to develop trust is to define and cultivate an organized structure for managing your team and your practice.

After you've defined how your practice will be organized and you've set expectations, it's important to communicate that structure to your team members. With a well-defined structure in place, all the team members in a dental practice can be on the same page.

The Dr. Dick Barnes structure offers a system for organization and emphasizes developing good relationships with patients. When patients consistently have a good relationship with their dentist, they trust them and their dental practices.

During the TTT seminars, we offer many tips for building a solid foundation for your practice. Here are three of my favorite suggestions for establishing a high-trust environment.

#### 1. Listen to your patients.

Establishing good relationships with patients can begin with something as simple as listening to your patients. When patients make an initial call to the dental practice, they sometimes communicate a lot of information. For example, they often tell you if they are in pain, if they have dental fears, and how long it has been since their last visit to a dental office.

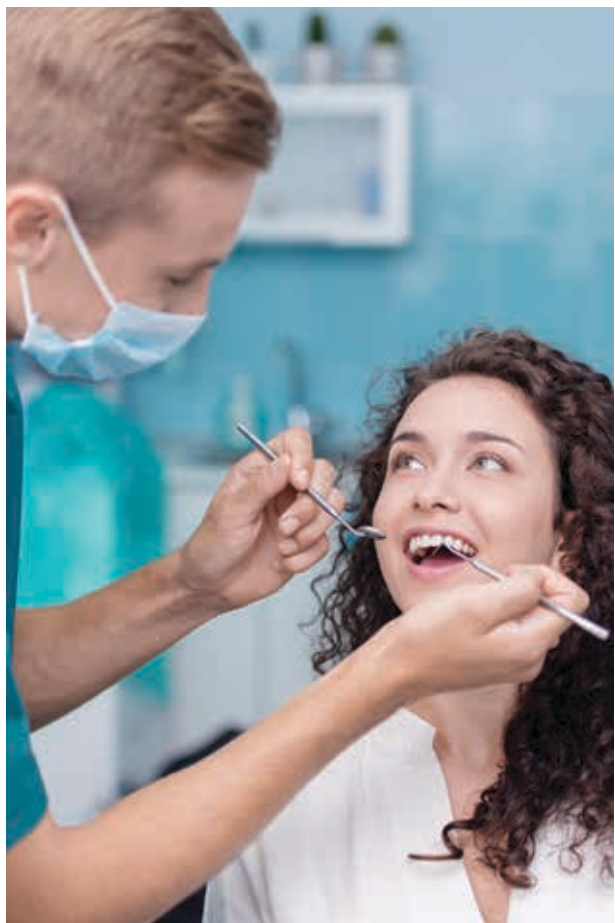
Patients don't like to repeat themselves from the phone call to the doctor examination. With a good structure in place, everyone knows the flow of information for the

### FEAR-BASED BEHAVIORS

1. Fear that comprehensive treatment is too difficult.
2. Fear of presenting comprehensive dentistry.
3. Fear of rejection.

### HIGH-TRUST BEHAVIORS

- 1 Listening to your patients.
- 2 Being consistent.
- 3 Having integrity.



patient. Information should be communicated to other team members in a well-defined way, so that patients feel heard and validated.

When dental practices have a system in place that communicates and documents the patients' needs in a consistent way, there is no need to repeatedly ask them the same questions. If your practice asks patients the same questions over and over, they probably think you are not listening to them and that they are not a priority.

### **2. Be consistent.**

It can be frustrating when patients hear one message from one team member and something different from another. The words used in your dental practice matter! Mixed messages are very confusing and can lead to mistrust, and patients who are confused do not buy treatment.

Team members should learn and practice what to say to patients—how to talk about an objection before it becomes one, how to greet new patients on the telephone, and how to give patients consistent messages.

In the Winter 2015 issue of *Aesthetic Dentistry*, Tawana Coleman writes about five messages that are critical to deliver to patients. These five messages help dental practices establish good relationships with their patients. In the article,

Tawana discusses the actual words to use when delivering the messages.

The messages include what to say about referrals, insurance questions, financial resources, sterilization practices, and concerns about pain. These five messages address issues that are common in every dental practice. Keeping messages consistent throughout the practice ensures that patients will receive the same response regardless of the team member they ask.

## **Establishing good relationships with patients can begin with something as simple as listening to your patients.**

### **3. Have integrity.**

If a dentist or team member says they are going to do something, they should follow through and do it! Being responsible and being true to your word is a great way to build trust with patients.

For example, if a team member offers to research a patient's insurance to see what the insurance will cover, the team member should do it thoroughly and document all necessary information in order to retrieve that information later on.

Similarly, if a dentist says that he or she is going to offer a patient a treatment at no charge, it's important to communicate that information to team members so they know to follow through with that promise. Patients will develop trust with you and your team members.

When you build relationships with patients, your patients will refer other patients to you. This is a direct reflection of taking the time to think about the structure of your practice and the messages that dentists and their team members communicate to each and every patient.

In such an environment, the patients' fears are all addressed before they become a problem or a hindrance to treatment. With these proactive strategies in place, "breaking up is hard to do!" Your patients will be loyal to your practice because they like you and trust you. ■



*Trish Jorgensen has been working in the dental industry for more than 35 years. In July 2017, she succeeded Tawana Coleman as a Practice Development Coach for the Total Team Training seminars with the Dr. Dick Barnes Group. She can be reached at [tjorgensen@arrowheaddental.com](mailto:tjorgensen@arrowheaddental.com).*

Q&A  
explains

# All About ZirCrowns

**A Crown Is Not Just a Crown.**

**A**esthetic Dentistry recently spoke with Arrowhead Dental Laboratory's CAD/CAM manager, Jay Nelson, about monolithic full zirconia restorations, which are also known as ZirCrowns. Jay and his team developed a unique process that results in a highly aesthetic zirconia restoration. He recently shared his insights about the process with us.

**AD: WHAT IS A ZIRCROWN?**

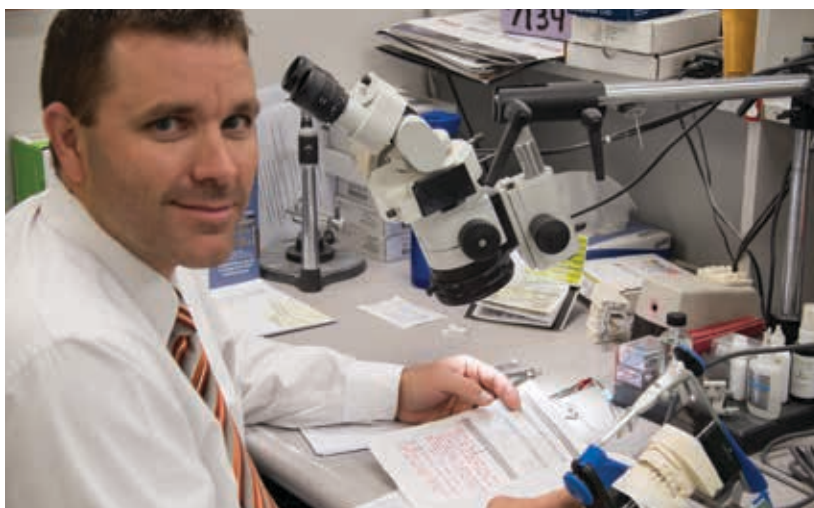
**JN:** ZirCrown restorations are full zirconia restorations, and they are a compelling option for dentists from two perspectives—strength and aesthetics.

**AD: WHAT ARE THE DIFFERENCES BETWEEN ARROWHEAD'S ZIRCROWN AND ZIRCONIA CROWNS MADE BY OTHER LABS?**

**JN:** The material is zirconia, but the fabrication of it—the actual manufacturing of it—has been improved, and this process leads to a more aesthetic outcome. Doctors are requesting more and more ZirCrown restorations. During the past couple of years, Arrowhead's internal team has refined and perfected the manufacturing process of these full zirconia crowns.

**AD: WHAT'S NEW ABOUT THE PROCESS OF MAKING THESE CROWNS?**

**JN:** At Arrowhead Dental Laboratory, we've done a lot of research about how to fabricate ZirCrowns. We tested and tried



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

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. The different processes that we tried all offered varying results.

One of the things we learned is that the latest technology and traditional fabrication techniques could be combined. The result was a precision fit with CAD/CAM techniques, in addition to the highly aesthetic outcome.

We designed the crowns on software that can create a natural-looking morphology and anatomy in the crown. We create the crown to have the proper color, the proper shading, the gingival warming, and the incisal translucency—all of which are traditionally difficult to achieve in a full contour zirconia (without the porcelain). With the new process, we achieve all of



the benefits with custom green state shading. The result is a full zirconia crown that offers traditional strength as well as incisal translucency.

The process at Arrowhead is very specialized. Each ZirCrown is a custom order, made by master technicians. We are particularly proud of our enhanced staining technique, which starts with a master technician infiltrating the green state of the zirconia prior to sintering (firing). We actually brush on the stains of the final shade *before* it's sintered.

The staining effect is infused into the restoration itself, rather than merely being brushed onto the surface. The result is aesthetics that are more lifelike and longer-lasting than those produced by stains that were applied after the sintering process.

Arrowhead has tremendously skilled technicians, and it is to their credit that they have developed this unique process. It is exciting to see the results of precision technology combined with the skill and artistry of the human touch.

#### **AD: WHAT ROLE DOES ARROWHEAD'S TECHNICIANS PLAY IN THIS PROCESS?**

**JN:** Our CAD designers are equipped with the latest production technologies, and they receive ongoing education from leaders in the industry as the technology continues to evolve. One of our Elite technicians works with the CAD designers to ensure that their design conforms to the Arrowhead standard and not just a predefined setting in the software. The level of care in both the design process and the milling process is something that we take great pride in.

Before the staining process, our technicians contour the restoration by hand after it has been milled in the green state. A technician takes a handpiece and fine-tunes the anatomy of the restoration, contouring the embrasures or contouring the height of the crown.

Arrowhead's ceramists contour the crown prior to the stainers working on the restoration in the green state. Again, 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.

We have three employees who stain the zirconia crowns at Arrowhead. The lead stainer has been with the lab for about 15 years. Our process is unique because 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 a result until 3 or 4 hours later? That's where the experience of our stainers is crucial—they know what they're doing and they know what to look for because they've done the process many times.

My department has stained thousands of crowns various ways, with a number of different brushstrokes. We've fired them and logged every detail of the entire process until we learned exactly what worked. We developed a process that can match whatever particular shade a dentist requests. If a dentist is looking for something unique, we have the skills, talent, and experience to deliver that particular, customized shade.

We also have a quality assurance team that is second-to-none. The evaluation criteria and requirements for approval



*(Above) Closeup view of Arrowhead's ZirCrown. No porcelain is used in the fabrication of these crowns.*

of one of these crowns are some of the most stringent in the industry. Their expertise in evaluation is a critical component to the iterative improvement of our process, and their insights were key to the development of this process.

#### **AD: CAN YOU PLEASE EXPLAIN WHAT THE TECHNICIANS DO FROM START TO FINISH ON AN ARROWHEAD ZIR-CROWN?**

**JN:** First, we scan the models into our CAD program. We have multiple designers who design these ZirCrowns on our CAD software, specifically detailing the morphology of the tooth. Then we send the design to a CAM unit where we calculate the milling path of the crowns. Next, we put the design into a milling machine where the crown is milled out of the material.

Once the crown goes through the initial milling process, the hand-contouring of the crown begins. We remove any sprues by hand, and if it's an anterior tooth or a bridge, we fine-tune the contours of it prior to staining. If it's a single posterior restoration, we go straight into staining the crown.

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

After staining, the crown is then sintered for the appropriate time to maximize the beauty of the staining process. When it comes out of the oven, we check the fit on the working die(s) and the occlusion on the working model to make sure everything, including the contacts, looks good.

When the fine-tuning is finished, if there are additional adjustments needed, we will dial in the contacts and make whatever additional tweaks are necessary. Lastly, we 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 ZIRCROWN FROM ARROWHEAD?**

**JN:** When doctors buy a ZirCrown from Arrowhead, the technicians spend a lot of time to ensure that the quality of the crown is superior. They ensure that the stain is correct, the shade is correct, and that the contours are perfect for the patient. The technicians really take their time to make sure these crowns look as lifelike as possible.

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

The value of an Arrowhead ZirCrown comes from the technicians who are spending the time necessary to create a crown with superior aesthetics. It shows in the final product. In today's marketplace, many dentists are looking for ways to stand out from every other dentist in town. The Arrowhead ZirCrown is a great way to do just that.

**AD: ARE THERE OTHER ADVANTAGES TO ARROWHEAD'S ZIRCROWN PROCESS?**

**JN:** I think another advantage is the longevity of the crown, not just structurally but aesthetically. Arrowhead's ZirCrowns are built to last and they will look great for the life of the restoration.

In today's competitive environment, dentists should look at any advantage that can separate them from other dentists. Offering ZirCrown is a natural, easy way to stand out because it offers patients a crown that has been customized to their mouth and crafted just for them.

Dentists who want to stay competitive should offer something above market—above what's commonplace—and Arrowhead's ZirCrowns are above and beyond what you see in zirconia crowns offered by other labs. We are not taking these crowns right out of a machine, slathering some surface color on

them, and shipping them off. That's why we say a crown is not just a crown.

With Arrowhead's ZirCrown process, we're taking the benefit of both modern technology, and the artistry and 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. The results are the highest aesthetics possible combined with the strength of full zirconia. It's a beautiful combination.

**AD: WHAT IS THE OVERALL VALUE OF AN ARROWHEAD ZIRCROWN?**

**JN:** In a word, craftsmanship. In today's marketplace, zirconia crowns have become a mass-produced product that really doesn't offer a dentist the ability to differentiate the cosmetic outcomes that he or she can deliver for patients. This is not

## We're taking the benefit of both modern technology and the artistry and precision of human expertise to create something more unique, natural, and lifelike.

the case at Arrowhead. We have taken the time and effort to create a zirconia crown that has all the benefits of zirconia without having to compromise on aesthetics. Helping our dentists develop a competitive advantage is just as important to us as the product itself.

One of the best things about Arrowhead is its focus on craftsmanship. Other labs might consider the ZirCrown to be a "no-frills" type of product, but Arrowhead sees it as an opportunity to bring value above and beyond what is expected.

The fact that we have been encouraged to invest so much time and effort into the development of this process is a testament to Arrowhead's focus on delivering life-changing dentistry to every patient. It is a process that we are very proud of, and one that I believe makes a difference in the lives of dentists and patients alike. ■



*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.*

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## PUBLISH YOUR CASE!

We are looking for articles to publish in upcoming editions of *Aesthetic Dentistry* magazine! Please send us your case study that features Arrowhead Dental Laboratory's Elite dental restorations.

To be considered for publication, we ask that you include step-by-step information, photos, and any products that were used. Your story may help other doctors learn how to provide life-changing dentistry! For more information, please contact:

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# The Importance of First Impressions

**Don't Ignore the Details That Differentiate Your Practice.**

**Y**ou've probably heard the saying, "You never get a second chance to make a first impression." When it comes to a dental practice, a visitor's first impression often determines whether or not that person becomes your patient. New visitors don't know you or your practice. Everything about the initial contact should be positive so they keep coming back.

**If a visitor receives a negative first impression, even if the rest of the visit is positive, the negative impression is never forgotten.**

Dr. Dick Barnes, founder of Arrowhead Dental Laboratory, said, "People do business with people they trust." In other words, people should be given every opportunity to have a good impression of you and your practice.

In his 1972 book *Contact: The First Four Minutes*, author Leonard Zunin, M.D., suggests that in only four minutes, people form a favorable or unfavorable impression of you. According to Zunin, if you make a good impression, people are very willing to continue the relationship. However, if it's a bad impression, you're out. All team members should try to make the dental practice experience an unforgettable one for patients in a positive way.

## **STORIES FROM THE FIELD**

For years, I have traveled across the country visiting dental practices as part of my professional responsibilities. Every time I visit a dental practice, I imagine what the experience might be like for new patients. If someone visits a practice and is greeted by a team member with a negative or uninterested demeanor, it can cause the visitor to become somewhat guarded. However, if an accommodating and friendly person greets the visitor, the

# 8 Tips for an Unforgettable First Impression

1. Greet all patients in a friendly manner.
2. Make your online presence user-friendly.
3. Always smile when talking to patients on the telephone.
4. Offer a comfortable receiving area.
5. Thoughtful details like free Wi-Fi, coffee, tea, and water are appreciated.
6. Keep the entire practice scrupulously clean and organized.
7. Conduct new patient interviews instead of using a clipboard.
8. Always greet patients as they arrive and when they leave.



overall experience is usually very positive. An overall inviting and positive environment helps to promote business and encourages patient retention.

Remember that new patients are not your patients yet. New patients need a chance to get to know your practice. The first interactions are so important—whether they occur over the phone, online, or in person.

## THE ONLINE VISITOR

More and more often, patients schedule dental appointments and research a dental practice online. Sometimes there's no human interaction until the first appointment. Many dental websites list a plethora of the products that they offer, which can confuse and even scare patients away. Too much technical information can be overwhelming for new patients. A dental website should offer easy-to-understand information in a clear and comforting manner.

Keep the website design simple and inviting. Make sure the dental practice's hours of operation are clearly visible on the website—it's often the first thing patients are looking for. It's also a good idea to include a nice photo of the doctor in order to provide a familiar face for patients. Make sure the dental practice address is also clearly visible so that patients can use that information to navigate to the office easily.

## THE TELEPHONE CALLER

After visiting a website, a dental patient's next impression of a practice is often via the telephone. A good telephone conversation should leave the caller feeling confident that they called the best practice. On the phone, team members should

use a pleasant voice when greeting all callers. Tawana Coleman, the former instructor for the Total Team Training seminar, said, "Even on the telephone, patients can always tell when you're

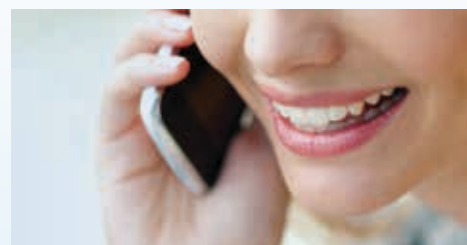
**The behavior of the team members working at the front desk is critical to an overall positive experience.**

smiling and can always tell when you're frowning. So make it a smile." Before answering the phone, team members should take a moment to think about their greeting and smile before speaking to the caller. Every phone call is very important!

## THE OFFICE VISIT

It's easy to attract new patients and maintain current patients simply by being pleasant and accommodating. However, this simple principle is sometimes harder for team members to execute than you might think—usually because they underestimate its importance.

Positive first impressions aren't important just for new visitors. For existing patients, a positive experience at the start of an appointment provides ➤



a sense of reassurance, and confirms that they will have a good experience during the remainder of the visit.

I've worked with offices where the dentist and team members suggest that the only thing that matters is the dentistry—they believe that small pleasantries from team members don't make a difference.

Don't get me wrong, the dentistry is extremely important, but developing relationships is just as important. Developing good relationships with patients ensures that they return so that the dentistry can be done. They will be lifetime patients.

If dental practices don't cultivate good relationships with their patients, the patients will not be invested in the relationship and may eventually go somewhere else.

To build relationships with patients, become friendly with them. If a patient comes in close to his or her birthday, ask team members to wish them a happy birthday. Similarly, wish patients happy holidays during the holiday season. And offer compliments to patients—little things like this help build strong relationships.

## If dental practices don't cultivate good relationships with their patients, the patients will not be invested in the relationship and may eventually go to another dentist.

When I visit dental offices, team members often ask me what they can do to improve the patient experience. Often the answer is simple: make the time spent in the dental practice a positive experience for the patients from start to finish.

In order to ensure a positive experience for patients, team members should leave their personal problems at the door. My son is a chef and he often says, "When you're working and the stove is on fire, none of the customers should know." His statement underscores the importance of keeping the customer experience positive no matter what kind of mayhem may be going on behind the scenes.

This principle is even truer for dentistry because many patients are apprehensive in a dental environment. Since they're

already a bit nervous about potential discomfort, team members must work extra hard to convey a sense of peace. For nervous patients, the behavior of the team members working at the front desk is critical for a pleasant and relaxing experience.

### A WELCOMING ATMOSPHERE

William Shakespeare said, "All the world's a stage," and it is true! Team members are "on stage" the minute a visitor walks into the office. The front desk associate must be relaxed, otherwise he or she will unnerve the patient.

I have been seated in the reception area when something tense is happening behind the front desk. I immediately noticed that the other patients in the receiving room were visibly uncomfortable.

On the other hand, when an office is calm, I can look around and see patients who are likewise calm (and usually smiling). No matter how busy you are, it's important to project a calm and inviting atmosphere. Sometimes team members have to just pretend that everything is calm, but even if they are pretending, the positive effect is the same.

### THE RECEIVING AREA

In a dental office, the name you use for your front area is important. A lot of offices use the term "waiting room." But think for a moment about the connotation of such a label. If it's called a "waiting room," it means your patients will be waiting, and *no one* likes to wait. Waiting automatically has a negative connotation. Instead, call it a receiving room. This can subliminally help change a patient's perception. A receiving room is where patients are welcomed and greeted.

Some team members assume that their office décor should be modern and in the current fashion in order to project the best impression. However, nice décor doesn't always translate into a good experience. You can go to the "Taj Mahal" of offices and still have a bad experience; or you can go to a very humble office and have a wonderful experience. The important thing is the *experience*.

Make the receiving area cozy and inviting, and offer comfortable seating. Also consider offering Wi-Fi and water or some teas and coffees. Keep the entire office very clean. Pay attention to details. Old, dusty plants or décor can suggest to the patient that things are not being taken care of and can give a bad impression.

If there's not a restroom in the receiving area, make sure to tell patients where the restrooms are located when they check in. Make sure patients know that they are in good hands when they sit in the reception area. I have visited dental offices where the receiving room was very humble, but the experience was remarkable because the team members took care of every detail.

When you visit a dental office that is organized—meaning all the magazines are arranged in an orderly fashion, the chairs are in order, there's no clutter, and people are calm—patients have a good experience.

### ELIMINATE BARRIERS

It's just a personal observation, but I have noticed that some dental offices have a window separating the front desk from the reception area. The team members sit behind the window,





and they slide the glass open to talk to patients. The sliding glass window creates a physical barrier between team members and patients. Most patients prefer a feeling of accessibility where they can reach the team members and doctor if they need anything.

## NEW PATIENT INTERVIEWS

A new patient interview is an important part of making a positive impression on patients. When visiting a new dental office, many patients expect to be handed a clipboard to fill out their health information on. Instead of giving patients a clipboard, ask the patient to discuss their health concerns in a short, private interview. A new patient interview immediately makes patients feel important and signals that the office cares about their health.

The new patient interview should make the patient feel comfortable discussing his or her health concerns, and welcome the patient to a place of trust. In this short conversation (usually no more than 10 minutes), you discover the patient's needs and wants with regard to his or her dental health. The interview immediately differentiates your dental practice from others.

After a new patient interview, I've heard patients say, "I have never had that experience before!" It makes the patient feel special. With the new patient interview, patients feel like human beings instead of just another statistic filling out a form. When done correctly, the new patient interview is a caring discussion with team members who are genuinely interested in the health concerns of the patient.

## WORDS MATTER

I've already described the psychological difference between the terms "waiting room" and "receiving area." But the name of your receiving area isn't the only term that matters. The words that team members use are important. Sometimes team members forget to say goodbye to patients, and those patients are left wondering if they are finished. The salutations used when patients arrive and depart should always be very well defined.

When an office is a little behind schedule, I've heard team members tell patients, "We're running a little late. We'll be right with you." Instead of using such words, acknowledge the patient and explain that the doctor knows he or she is waiting. Say, "Mrs. Jones, Dr. Smith knows you're here. He has a tight schedule today, but our team will be with you momentarily."

The phrase "I'll be right with you" can mean many things. It can be 5 minutes or 30 minutes, but the patient is assured that the doctor is aware of the situation and will be with him or her soon. If a team member simply asserts, "The doctor is running behind," patients immediately assume the worst. They might think, "He's going to rush through my appointment and it will hurt!" Or, "He's not going to give me adequate time since he's running late." When the office is behind schedule, the words used to communicate with patients can help or hurt the situation.

To convey a positive message, praise a patient who arrives on time. If a patient arrives a bit late, continue the positive message. Say, "I'm glad you made it. We can still see you. I will let the team know that you are here." Use neutral words. For example, instead of saying, "the doctor will be with you right away," say, "our team will be with you momentarily." "Momentarily" is a neutral, soothing word that can have many meanings.



Make sure that when a financial team member discusses payment with patients, it's in a private or at least semi-private area. Patients can be very uncomfortable talking about payment

## Keep an eye on all aspects of the patient's experience and it will be positive from start to finish.

when other people are nearby. When patients are uncomfortable, they want to escape the situation, and this can have a negative effect on whether or not they agree to treatment in subsequent appointments.

## SAYING GOODBYE

In addition to first impressions, final impressions are important. After an exam has ended, rather than letting patients figure out they are done, always communicate expectations to them. Team members should let patients know whether they need to visit with a financial coordinator or a scheduling coordinator. And of course, team members should explain where patients can exit the building, and offer heartfelt thanks for the visit.

Keep an eye on all aspects of the patient's experience and it will be positive from start to finish. The difference between a positive and negative experience is in all the details. ■



*Hernan Varas is in Clinical and Practice Development with Arrowhead Dental Laboratory in Sandy, UT. Hernan has been with the lab for more than 15 years and has worked in the dental industry for more than 30 years. Originally from Chile, Hernan attended Westminster College in Salt Lake City, UT, for a bachelor's degree in marketing and communications. Afterward, he continued his studies at Westminster and received a Master of Business Administration degree, with an emphasis in international management. Since working at Arrowhead, Hernan has been mentored by and visited thousands of dental practices with Dr. Dick Barnes—including every state in the contiguous United States. Hernan specializes in strategies and techniques for increasing productivity and case acceptance in dental practices.*

# Patients First

## Using Total Team Training Principles for a Patient-Focused Practice.

Dentistry is my family's business. My grandpa, his brothers, my dad, my uncles, and my sister all chose dentistry as their profession. My mom also worked at our dental practice in Shelby Township, MI, as a bookkeeper, and my other siblings have worked there too. Even the team members who work in the practice but aren't related to me feel like my relatives because most of them have been with the practice for several years. It's a family practice in every sense of the word.

### I told Dr. McKinley that I thought the entire staff should attend the TTT seminar when it was offered again.

When I was in high school, I started working at the dental practice as a sterilization assistant. I did some chairside assisting when I was 14 years old, and I kept at it until I moved away to go to college. After that, I worked at Walt Disney World® in Orlando, FL, for three years before eventually returning to the family business. I started working as the office manager of the practice five years ago and I've been there ever since.

#### THIRD TIME IS THE CHARM

In 2013, I learned about the Total Team Training (TTT) seminar offered by the Dr. Dick Barnes Group. In the fall of that year, Dr. Dick Barnes and Herman Varas (from Arrowhead Dental Laboratory) visited our practice. They invited our team to the TTT seminar in Dallas, TX. I was the only person from our practice to attend the seminar, but I returned to work with enthusiasm about what I had learned.

I shared my newfound knowledge with Dr. McKinley. I told him that I thought the entire staff should attend the seminar when it was offered again. Dr. McKinley wanted to attend the seminar before committing to take the entire team, so the two of us flew to Utah for the next Total Team Training in February 2014. After the seminar, we were both convinced that everyone needed to attend.

In May 2014, we finally had our "total" team at Total Team Training. At that time, the seminar was offered in Lexington, KY. To get to the seminar, we loaded our team members into my dad's motor home and rolled on down to Kentucky. About 12

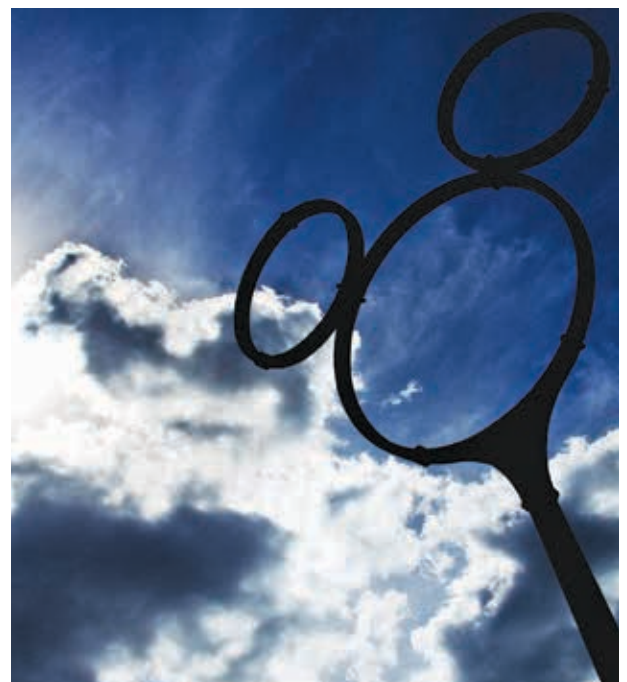
or 13 team members attended the training. It was an eight hour drive, and I drove the entire way.

Why would I attend Total Team Training three times? I was motivated by the concepts in Total Team Training and believed it would help our practice improve. The principles made sense to me and I learned something new every time.

Also, Tawana Coleman, the TTT instructor at the time, was inspiring. Tawana was very sincere about the principles of TTT and she spoke from her heart. In hindsight, I can see that my training at Disney World® prepared me for the similar structure that exists at TTT.

#### THE "GUEST" EXPERIENCE

Disney World® is a well-known, well-respected brand. They've created a strong and successful brand largely by focusing on the "guest" experience. Much of their employee training concerns employees' behavior towards the "guests" (all visitors to the park). Employees use scripts with specific words for common scenarios so that the experience is the same for all





*(Above, left to right, back row) Taylor DiCicco (RDH), Dr. Brittany McKinley-Holloway (DDS), Dr. Ray McKinley (DDS), Blake McKinley (Office Manager), Lynn McKinley (Bookkeeper), Tina McDonald (Insurance Coordinator), and Donna Shook (RDH). (Above, left to right, front row) Laura Schumacher, Kyrstyn Dean, and Katie DiCicco (Dental Assistants).*

visitors. It's a structured environment where the goal is to create a positive, memorable experience for each guest.

When I attended TTT and heard Tawana talking about the "patient" experience, it immediately resonated with me. She suggested specific words and messages to use with patients in a dental practice, and because I was already comfortable with a similar process, I was excited to implement her ideas.

## PUTTING WORDS INTO ACTION

After the first seminar, I returned to our practice and decided to implement the new patient interview with the specific form that each participant received. Prior to TTT, we were the office that handed new patients a clipboard with a pen and new patient forms. There was no opportunity to engage with the patient and learn about them, other than through their demographic information, insurance, and medical history.

All of that information is absolutely worthless when you're trying to build a relationship with a patient. When we started doing the new patient interviews as instructed by TTT, I noticed a deeper connection with my patients. I wouldn't have called them "my" patients before. Doing so now makes me feel like an advocate for them. I have an almost familial attitude toward our patients now.

After the second seminar, Dr. McKinley started to understand TTT case presentation techniques. He has been practicing dentistry in Shelby Township, MI, for a long time—more than 40 years—so, of course, his habits are fairly set. But talking about the benefits of the dentistry was a strategy that really resonated with him—how it serves the patient in the long-term versus offering

piecemeal treatments to patients, which he had fallen into the trap of doing before.

I participate in the case presentations now. Dr. McKinley presents the dentistry and I discuss the fee and payment options with the patient. We learned that strategy at the second TTT, and it works very well for us.

The third time I attended TTT, I was interested in seeing what the staff wanted to do. I listened to them and did what I could to support them in implementing those techniques into the practice. My role was to encourage them to apply new ideas.

## As far as the numbers side of things, after TTT our accounts receivable practically went away.

One staff member, Tina (who answers the phone at our practice), adopted TTT techniques for getting new patients in the door. She took the "shopper caller script" to heart—making it clear to patients that not all procedures are as simple as one might think. Tina always invites patients into the practice for a brief exam with the doctor at no cost to them. She liked that Tawana gave her permission to offer the patient their first visit as a no-fee visit. Tina is always doing everything she can to save the patient money, so that was an important script to her.

The no-fee first visit is now a principle in our office, but we've been flexible with that rule and sometimes go further than just a brief visit with some patients. That's a judgment call that the doctor makes. It's his time, so we leave that up to him. ►



Dr. Barnes said that we should be firm in principle and flexible in procedure. That policy definitely applies to the no-fee visit.

One important thing that everyone learned from Total Team Training was accepting the patient's decision. It's very presumptuous to say that dentistry is the most important thing in somebody's life. Sometimes other things (family illness, loss of job, etc.) can take precedence.

## Attending TTT three times in succession was great—each time, I was able to build on what I learned in the previous sessions.

Now when we present cases, we don't presume that dentistry is the most important thing in our patients' lives, but we still show them that there are some clear benefits to the dentistry. Hopefully, at the appropriate time for the patient, they will proceed with treatment.

We've been doing dentistry like this long enough to see patients wait on treatment, and then proceed in the future once they are ready. Time changes things and we have learned that often patients return when the time is right for them. We work with all our patients, no matter what their circumstances. We try to be patient with our patients.

As far as the numbers side of things, after TTT, our accounts receivable practically went away. The financial message in TTT is such an integral part of the training. Now we always discuss financials in advance with our patients, and they are never surprised at the front desk about what they are expected to pay.

### SOMETHING NEW

Attending TTT three times in succession was great—each time, I was able to build on what I learned in the previous sessions. I also heard things in subsequent sessions that I had missed earlier. By the time I attended the third training, I had implemented certain elements of TTT in our practice and I was able to drill down even deeper on specific strategies that enabled our practice to grow.

Having the entire staff at the third seminar was great! The team members each had different perspectives, and even though we took the same course, each of us took away something completely different.

If one person attends Total Team Training, you can implement a few principles that enable your practice to grow. But when 12 people attend Total Team Training, you can implement 12 principles or more. Each person can work on his or her own little piece, and the growth in the practice is accelerated.

### CONTINUOUS LEARNING

We've been running a dental practice for a long time, but we still have things to learn. I return to my TTT workbook and read through it to see things that I might have missed and things that we could do better.

One of our chief challenges is helping people find money for their procedures. Every single patient has his or her obstacles to

overcome, especially when it comes to the money. Just being creative and brainstorming with the patient is a good way to get them through their financial obstacles.

Sometimes it can be a bit tricky to apply the TTT scripts—especially when it is new information. For example, once I had a conversation with a patient and I tried to follow Tawana's script. It didn't go quite as well as I hoped. After that conversation, my next call was to Tawana. She went over the conversation with me and let me know what I got right and what I could improve upon in the future. Whatever obstacle you encounter in practice management, TTT offers strategies to overcome it.

One of the most unique and valuable things about TTT is the post-seminar coaching. Tawana made herself available if I needed help with anything after the seminar. So if I ever became frustrated when implementing something new, instead of quitting, I called Tawana or Herman and explained the problem. Usually they would quickly point out something that I had missed. Their support was invaluable!

## One of the most unique and valuable things about TTT is the post-seminar coaching.

I've taken a lot of continuing education for dental practice management and it's NOT common for the instructor to be available for consulting after the course ends. I understand that TTT still offers this coaching with their new instructors—even though Tawana has retired.

### TOTAL TEAM FOR EVERYONE

Since attending the TTT seminars, our practice has retained more patients—whether they accepted treatment or not. Yes, we still have those big cases that are slam dunks and the patient spends \$30,000 to \$40,000 in our office, which is great. But the smaller victories (like retaining patients) are still victories and contribute to the overall success of the practice.

Change is a step-by-step process. Implement things a little bit at a time, rather than trying to do everything at once. The great thing about the TTT principles is that they can apply directly to your situations as soon as you're ready for change. You really can't fail! ■



Blake McKinley graduated from Lutheran High North in Macomb, MI, and attended college at the University of Detroit Mercy, and the University of Michigan in Ann Arbor, MI. He has worked as an Office Manager for five years and draws heavily on his experience working at Walt Disney Parks and Resorts in Orlando, FL, for three years. He shares the vision of Dr. McKinley and Dr. Holloway—taking the best ideas in dentistry and implementing them in a high-tech, patient-centered practice.



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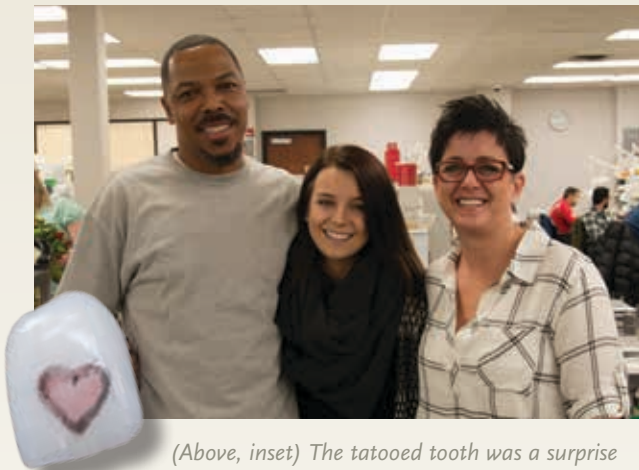
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**ARROWHEAD**





(Above, inset) The tattooed tooth was a surprise for Medina. (Above) Tim Byrd, Medina Baltic, and Aida Byrd at Arrowhead Dental Laboratory in Sandy, UT.

On the model, I saw the regular tooth, but when he put them in my mouth to try them on, he put in the tooth that my mom had messed up!

Originally, I told my mom I wanted a tattoo on one of my back teeth. She didn't do that. She put a tattoo of a big pink heart on the very front tooth! So they gave me the mirror and told me, "Wow, they look good! Your mom made them with love!" I was shocked when I saw the tattooed tooth! I remember saying, "This is a joke, right?"

But Dr. Downs kept up the joke, saying, "Your mom said you wanted a tattoo . . ." Finally they took the tooth with the pink heart out of my mouth and put the real one in, but I kept the tattooed tooth as a souvenir.

### A PERMANENT SMILE

When I saw my real restorations, I was so happy! My new teeth are beautiful! It was such a dramatic change that my mom said it even made my face look different. Before, my teeth were short and stubby and my gum line came down too far. But after I saw my new teeth in the mirror, I just kept smiling.

Because I hadn't told anyone that I was getting my teeth done, my first post on Instagram was an image of me smiling with the caption, "Wow, Crest Whitening Strips really work!" Then, after getting lots of comments, I said, "Surprise! I got my teeth done!" I've never gotten so many compliments in my life!

Today, my mom still likes to see my smile whenever she gets a chance. Sometimes I'll be eating dinner and my mom will tell me to smile. I usually say, "Not now, Mom, I'm eating dinner!" And she'll say, "I just want to look at them!" She's just so proud of them. And so am I.

Now that I've had my new teeth for a few months, seeing pictures of myself and feeling pretty is such a great change. It's nice to smile and feel free to show my teeth. It was something that I used to worry about, and now I smile all the time in pictures. It's given me a lot of confidence.

I am also more comfortable talking to people. When I tell people my story and what a change it has been for me, it's close

to my heart because my family was such an important part of the entire process.

I'm so thankful for my mom and for my stepdad, Tim Byrd, who also works at Arrowhead as a technician. He and my mom met at Arrowhead and got married soon afterward. He's another influential person in my life, and he had professional input on my teeth, too. Having Tim in my life and seeing how good he is to my mom and all the great things that they both do for their kids is incredible. It teaches me how I should be to others. Without Tim in our lives, this wouldn't have been possible. I'm thankful that he was a part of the process.

### A WORTHWHILE INVESTMENT

My advice for other patients who are contemplating a full arch reconstruction would be to do it! It's definitely worth the financial investment. Your teeth and smile are the most important parts of your face. A smile is what welcomes people in. It's what makes people feel comfortable around you. If you want to feel a newfound confidence, it's totally worth it.

**Your teeth and smile are the most important parts of your face. A smile is what welcomes people in.**

The only thing I might have done differently during the process would be to wear a pair of sweatpants during the procedure to be a bit more comfortable. Other than that, I wouldn't have changed a thing about it. I was super prepared. Everybody communicated clearly and made me feel at home.

On a scale of 1 to 10, I would rate my experience an 11! The procedure was amazing and it was comfortable too. I would recommend a full arch reconstruction to anybody! The experience was great for the entire family. ■



*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](mailto:dianamaxfield@gmail.com).*

### COVER STORY CREATIVE TEAM

AESTHETIC DENTISTRY: **Dr. Jim Downs**, Denver, CO

PORCELAIN RESTORATIONS: **Aida Byrd**, Arrowhead Dental Laboratory, Sandy, UT

PHOTOGRAPHY: **Justin Grant**, [JustinGrantPhotography.com](http://JustinGrantPhotography.com)

HAIR AND MAKE-UP: **Mary Ann Cruz-Horne**, Salt Lake City, UT

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