The FIFTY Greatest Game Changers in Dentistry
What has changed the way you practice dentistry? Is it the soft-tissue laser you love so much you even use it to cut the crust off your sandwich? Is it the eye-opening tutelage from a no-nonsense dental guru? Is it a harsh rule or regulation the government imposed upon the profession? Or maybe something you’ve used all along, but know you would be unable to perform high quality dentistry without it? Whatever the case, whether a dentist has been chairside for 50 years or five minutes – every single one of us has an answer for what’s most impacted the way we practice dentistry.

Dentaltown was curious to find out what you thought the biggest game changers in dentistry were. So, before Townies opened their ballots for the 2010 Townie Choice Awards, we asked one simple optional question: In your opinion, what person, event, story, technology, product or service do you think has been the biggest “game changer” in all of dentistry?

We thought we might get 100 answers, tops. But, man, were we wrong! More than 1,600 Townies answered the fill-in question. Some answers, we thought, were pretty spot on – others, like “my emergence into the dental field” and “my birth,” well, some Townies are well known for their sense of humor...

As we tallied up the votes for the Townie Choice Awards, we compiled the “game changer” data and pared your responses down to the 50 most popular answers. Then we asked members of our Editorial Advisory Board, popular contributors to Dentaltown Magazine, and well-known dental industry professionals to weigh in on why they thought the following 50 items were considered game changers by the Townies. Herein we are proud to present the results and reasoning for the 50 Greatest Game Changers in Dentistry, in no particular order...

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CAD/CAM

Machines that take digital impressions, make virtual models and fabricate the restoration through porcelain/ceramic or composite milling have reformed the concept of practice for technologically open-minded dentists. CAD/CAM allows precise and aesthetic restorations to be completed in a single appointment. The need for traditional impressions, temporaries and additional appointments for seating and delivering the restoration are eliminated.

We all know that “stressful” feeling on the try-in appointment, the concern we have about adjusting those lab fabricated crowns that might not fit or have occlusal issues. CAD/CAM puts all the control in the hands of the dentist, greatly reducing the need for adjusting and refitting lab crowns. Done correctly, the marginal integrity, occlusion and aesthetics of CAD/CAM restorations is superb.

CAD/CAM restorative dentistry is the new paradigm in dental care. It is the future of restorative care.

Add up all the benefits that CAD/CAM provides to the practicing dentist and, as famous American songwriter and philosopher Bob Dylan once sang, “the times, they are a’changin.” Restorative dentistry is “a’changin” and, yes, it’s “a’changin” dentistry. – GH

#2 Bonding

Where would dentistry be without bonding? We’d have no need for curing lights, finishing discs and strips, mylar bands, Medieval-looking matrices, and a million little sticky bottles. Wouldn’t life be great? Not!

We’d all have to remember what resistance and retention form are and do G.V. Black preps. We’d be back to heavy metal dentistry, dudes.

Bonding and the subsequent cosmetic dentistry revolution have put a new face on the dental profession. Instead of images of “shots,” burning chicken feathers, whiny drills, and the red drool in the white sink, the public now see the dental office as a place of tiny injectors, aromatherapy, pajamas, 80s music and a chance for a better facial appearance. The potential of a better look and a better life puts the old, “nothing personal, but I hate dentists” line in the attic with grandma’s dentures and my ABBA albums. Bonding has put a new smile on all of us. – D. Carlsen

#3 Composites

There is an obvious necessity to restore teeth in the smile zone and composite material provides miracles. Tooth-colored restorative material had an early start in dentistry as a single-color paste mix with limited application. The material had limited aesthetics and poor wear rates.

Generations later, we now have access to composite filling material of every color in the shade guide and reliable bonding agents to keep it in place for many years. Wear rates have improved so much that composite resin fillings are placed in all areas of the mouth. This aesthetic material threatens to completely replace amalgam as more patients demand tooth colored restorations. – TG
Lasers are accepted in the medical field, particularly in ophthalmology in the discipline of laser eye surgery. The acceptance that lasers can change our vision safely and painlessly has helped with patients' acceptance in the dental field. Dentists have been slower to pick up lasers for their practice primarily because of cost and education.

The price drop on soft-tissue lasers has brought many neophyte laser users into the field. This influx of dentists has driven up the demand for education – be it articles, lectures, hands-on training or Webinars. Many dentists are enthused at how these dependable, portable, lightweight diode soft-tissue lasers can be used for both soft-tissue surgery and the ablation of mild to moderate amounts of tissue in procedures like gingivectomies, crown troughing, frenectomies and fibromas. New procedures such as the treatment of oral lesions – aphthous ulcers, venous lake photocoagulation – have also been “hot” topics amongst dentists. In dental hygiene, we are seeing a growing interest to combine the laser with traditional methodologies to help decrease bacteria load in the gingival sulcus.

With the dramatic drop in price of soft-tissue lasers, combined with an increase in educational opportunities on this topic, more and more clinicians are “seeing the light.” – GV

Computerization has been one of the best things to happen in dentistry. Dental practices are running more efficiently and they have easier access to their information than ever before.

The use of computer softwares like Dentrix, Eaglesoft and now Web-based Curve Dental, have made the dentist and dental teams more aware of every aspect of the practice and opened their eyes to the business side of dentistry. Dentists have more access to what is actually occurring in their business, and this has created a newfound interest in the administrative side of the practice. The technology allows access to the office computer from home or mobile device.

Dental teams are working together to provide better care. There is more focus on being productive and utilizing time wisely. Thanks to digital scheduling, practices have healthier recall systems and are more aware of patients putting off needed treatment. Computers in the practice have helped improve patient relations due to excellent communication capabilities.

Features like digital charting, digital scheduling and working paperless, save time and money. They also help decrease mistakes and increase security. Lastly, computer reports provide all the needed information for the dentist to have his/her finger on the pulse of the practice at all times. – SP
First and foremost, digital images have facilitated the paperless office concept (Editor’s note: see our feature on going paperless on page 100 of our December 2010 issue). Additionally, this technology has eliminated costly and toxic chemicals from the office. The abilities to instantly view images as they are taken and digitally enhance the image are advances that we could only dream about when X-ray film dominated the profession. This technology continues to gain market share and will likely eliminate film-based X-rays in the same fashion that digital cameras have replaced film. – TG

#6 Digital Radiography

Dental implants have been around for thousands of years – and have even been found among Mayan ruins. Early 20th century implants were root-like metal baskets made of gold or iridium. In the latter half of the 20th century commercially available blade implants entered the market and competed with subperiosteal implants which are custom made by dental labs. These implant systems were successful but had high failure rates, were technically challenging and had limited clinical applications. These challenges left implants on the fringe of dentistry.

But developers of the modern implant like Drs. Per-Ingvar Branemark and Gerald Niznick didn’t give up… since the introduction of osseointegration, implants have taken shape as a root-form titanium screw with a textured surface, proving both successful and predictable. This drove the rapid growth of large and small commercial manufacturers of implants and prosthetic components.

Advances continue in design, technique and materials, most recently with the use of zirconia in the place of titanium.

The importance of dental implants in dentistry is evident in the statistics. Sixty-nine percent of adults between 35 and 44 have lost a tooth due to trauma, decay, gum disease or a failed root canal according to the American Association of Oral and Maxillofacial Surgeons. And with a success rate of 95 to 97 percent over 20 years, it’s no wonder consumers are excited about the emerging technology. – WK

#7 Implants

Presenter of more than 45,000 hours of continuing education and co-founder of the Clinicians Report (formerly Clinical Research Associates), Dr. Gordon J. Christensen is one of the most well-known and well-respected dentists in the world. When Dr. Christensen speaks, dentists listen. “From the time I graduated in 1984, Gordon was the one who came around every year or so and gave a straightforward, honest and unbiased look at dentistry,” says Townie “drjames.” – ML
Loupes and Magnification

Dentistry is so much easier if you can see what you are doing. Back in the “dark ages” of dental and surgical education, we were taught to do procedures using the naked eye with aid from the overhead dental light.

Operating microscopes were once seen only in the operating room. But, manufacturers saw the potential for dentistry and began producing scaled-down versions that made them affordable for dental practices. This technology became popular first among endodontists and restorative dentists, and then spread to other specialties. Now, operating microscopes are also seen in many dental practices, allowing precision in procedures that was not felt to be possible a generation ago.

Surgical telescopes (loupes) have become commonplace in dentistry in the last 15 years. No matter how minor the procedure, using magnification elevates your standard of care overnight. Being able to clearly see every detail of the operative field, even in the most distal areas of the mouth, makes dental procedures less stressful, faster, easier and more successful. The surgical telescopes of today have been significantly improved with lighter weight frames and lenses, making them more comfortable and less “nerdy-looking.” Many of them can also be paired with integrated LED and fiberoptic headlight systems, enhancing visibility even further.

Seeing is believing. No matter what your specialty and what procedures you perform, adding magnification to our armamentarium with loupes or an operating microscope has enhanced our vision – both of the teeth and of dentistry as a progressive science. – JR

The Oral-Systemic Connection

Just a tooth fixer? – not anymore. The modern dentist accepts the responsibility to identify, treat and manage the most common inflammatory process of the body – gum disease, and there is an insane amount of it running rampant, undetected and untreated. So as the prevention of periodontal disease continues to reveal more and more “whole body” benefits, patients will count on their dentist to help them live a longer, healthier and happier life.

Now physicians will be depending on dentists to manage the risk factors for serious disease that they have no control over. If a physician is responsible to manage the risk factors for serious diseases like cardiovascular disease, stroke, diabetes, cancer, and arthritis, in addition to preventing pregnancy complications, they must work with a dental team. One of the greatest paradigm shifts our profession has ever experienced is happening now – oral health affects body health. Get ready for the tsunami that will be oral systemic and the impact it will have not only on dentistry, but on the entire health-care community. – CK

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Imagine trying to match single central incisors or document before-and-afters without digital photography. Imagine completing a smile design and not being able to capture an emotional after-picture of the patient. Imagine keeping your images in a storage room instead of a hard drive. Digital photography is as much a part of our practice as our handpieces and lasers, but without the precision and control that typical dental instrumentation requires for success.

Dentists are implementing more digital photography into their practices and finding themselves in an area that is dominated by subjectivity rather than exact depth cuts and correct wavelengths. This new role we play as dentists fosters positive relationships with our patients, as we gather more detailed information than ever before, to help dentistry achieve new levels of success. Digital photography allows us to have instant communication with our laboratories while our patients are still in the chair. Patients can be educated with the images we capture inside and outside of the mouth at the same appointment. We can even shoot a patient’s new smile during a try-in, and show them the after-picture for approval before we bond the restorations to the teeth. Digital photography is encouraging dentists to hold themselves to higher standards than ever before.

Take away my digital camera and you might as well take away my drill. – JO

Local Anesthesia

Dentists used cocaine for local anesthesia in the 1840s. With better technology and legal (and ethical) ramifications, we’ve moved on. Products like Lidocaine and Articaine have not only saved patients’ gums, but also their tear ducts. – CP

The “dot-com boom” shook the business world. Between the rapidly changing stocks in ’96 and ’97 and the dawn of social media giant Facebook in 2004, the field of dentistry had little choice but to jump on the bandwagon. Dental practices now sport Web sites, Facebook fan pages, Twitter accounts and blogs. It’s a whole new era of social media and Internet publicity nowadays, and if you’re not sure what we’re talking about, Google it (or go back and check out Dentaltown Magazine’s Social Media Focus in the September 2010 issue). – CP

Tired of the shadows created in the mouth from the overhead operatory light, Dr. Thomas R. Hirsch set out to create a solution by putting the light source where he needed it most – inside the patient’s mouth. By combining intra-oral illumination with the ability to aspirate and retract, the Isolite dryfield illumination system was born. – ML
Braces came into play in the early 1900s, and the methods of moving teeth stayed relatively the same until the introduction of Invisalign in 1997. Gaining FDA-clearance to market in 1998, Invisalign changed the “how” and “who” in moving teeth. ClearCorrect has since followed in their footsteps.

After impressions of the teeth are taken, data is sent to respective labs, where computer software generates a series of clear plastic trays for teeth retention. The easy process provides adults (and now teens) with the means of straightening their teeth without the hindrance of unaesthetic metal braces.

Not only did clear aligners change how teeth are straightened, it opened the door for general dentists to facilitate minor orthodontic work. It also provided high schoolers a nice respite from the classic nicknames, “metal mouth” and “tin grin.” – CP

Dentaltown

We promised ourselves we wouldn’t cry... Dentaltown hasn’t ever thought of itself as a “game changer,” yet we made your list. In 1999, Dr. Howard Farran had an idea to create a Web site for the dental profession. The site would know no boundaries. It wouldn’t care if you were from Toronto or Hong Kong or Sydney, Australia. Dental professionals would enter a chat room, post an X-ray or a photo or a case history and ask colleagues from around the world to discuss the case. The Web site would be a way for dentists to connect with their peers and save one tooth at a time. And for more than 11 years, via Dentaltown.com, no dentist has ever had to practice alone since. Connecting thousands of dentists around the world, becoming the proving ground for products and services and even inspiring some Townies to start their own dental companies, Dentaltown remains the largest and most vibrant community in the dental profession. We don’t always like to toot our own horn, so thanks for doing it for us. – BL

#16 Clear Aligners

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#17 Electronic Reminders

Piggy-backing on the e-prefixes of the dot-com boom, electronic reminders, or e-reminders, show up in patients’ e-mail inboxes and on cell phones to not only jog their memory to schedule a recall appointment, but also to confirm appointments they’ve already made. They eliminate the expense of postcards and postage stamps, they allow patients to reply to confirmation text messages, and most importantly, they meet patients’ where they’re at, which as it turns out, is no longer at the mailbox. – CP

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Metal-free Restorations

They replace pre-existing porcelain-fused-to-metal (PFM) crowns and bridges, provide beautiful smiles for our patients, and help avoid the need for aggressive preparations. Aesthetics might be the primary driving force for metal-free restorations, but it certainly is not the only one.

Metal-free materials can also be used for multi-unit bridge applications. The bridge applications utilize a zirconium-oxide substructure which does introduce some opacity, but usually provide far superior aesthetics than we have traditionally seen with metal.

Metal-free restorations present the opportunity to be more conservative in preparation design. This is especially true with the lithium disilicate (e.max) and leucite-reinforced (IPS Empress) ceramics that can be as thin as 1mm on the facial and lingual of full coverage crowns and the translucency of the material allows placement of a supragingival margin. These materials can also be bonded using dentinal adhesive systems and resin cements, so retention can be enhanced and eliminate removal of healthy tooth structure.

Many of these materials are “wear-friendly” when opposing natural enamel, unlike most of the powder-liquid ceramics placed on metal copings with PFM.

The decade-long search for metal-free indirect restorations has resulted in a much prettier outlook on dentistry. – DH

Power Toothbrushes

Whether the brush head is straight, round or with multiple heads, power toothbrushes provide uniform bristle movements that far exceed what can be done in the same amount of time with a manual toothbrush. The timer introduced with single brush-head power toothbrushes addresses two areas of failure with manual toothbrushes: brushing long enough and brushing throughout the mouth. The timer assures brushing lasts two minutes with a signal to move from mandibular linguals, to mandibular facials, to maxillary facials and finally, maxillary linguals. New powerbrush designs with multiple brushheads reach maxillary, mandibular and occlusal surfaces at one time, reducing brushing time while insuring all surfaces are reached. In terms of being proactive about oral health care, power toothbrushes have brought more power to the tooth brusher. – TO

Dr. Frank Spear

Frank Spear, DDS, MSD, is most known for his contributions as a leader and educator in aesthetic and restorative dentistry. In 1994, Dr. Spear founded The Seattle Institute of Advanced Dental Education, now renamed Spear Education, and has expanded to the Scottsdale Center for Dentistry. Dr. Spear challenges dentists to provide better patient care by teaching how to treatment plan and problem solve in a logical manner. “I don’t think you will find anyone who isn’t happy with their educational experience with Frank,” says Townie “socalsam.” – ML
#21 Whitening

Whitening has made cosmetic dentistry or appearance-related dentistry affordable. Prior to teeth whitening, to obtain a really great smile veneers or crowns had to be placed, which was not practical or affordable for many patients.

Now patients can have bright smiles for a very minimal cost and with a non-invasive procedure. When patient’s started to learn about whitening options, it brought in patients that had not been to the dentist in years, ultimately giving dentists a second chance to educate patients on the importance of consistent dental visits. Whitening helped to brighten dentistry’s future in more than just shades of white. – DH

#22 Dr. John Kois

John Kois, DMD, MSD, director and founder of the Kois Center, serves dentists through continuing education courses. He and his team provide an intimate environment for learning about current clinical dental topics. “He changed the way I viewed dentistry in the first 10 minutes of his TxPl I course,” says “rochdoc,” on the message boards of Dentaltown.com. And if all that isn’t enough, according to Townies, the institute’s bathrooms are apparently worth a visit as well. – CP

#23 NTI

Invented by Dr. Jim Boyd, the NTI-tss is an FDA-approved dental solution for the prevention of migraines, tension headaches and TMJ related pain. This appliance has a design that utilizes a patented discluding element to provide protection of muscles, joints and teeth by suppressing parafunctional intensity by 70 percent. Fabrication of this appliance can be accomplished chairside or with an approved lab. The response from patients and dentists has been very positive, which is one of the reasons this appliance received so many nominations for our list. (And check out our interview with Drs. Boyd and Andrew Blumenfeld about the NTI-tss in this issue!) – TG

#24 Microscopes/Telescopes

The dental microscope provides perfect coaxial light and affords multiple magnification levels from 3X to 24X. The impact on dentistry is quiet yet profound. Between 1990 and today, the number of endodontists using microscopes has increased from one percent to 90 percent. What does that mean for non-endodontists? Well for starters, complex endo done without a microscope can be considered as a “second-class treatment.” And with the majority of endodontics being performed by GPs, not endodontists, you are likely to see more and more microscopes in hometown dental offices. Bottom line: if you enjoy endo, you will eventually buy a microscope. Period. And then you will probably begin to use your microscope for many non-endo treatments... partly because you’ll be in love. – D. Clark
#25 Fluoride

In high doses it is hepatotoxic, but the trace amounts found in many public water supplies make teeth resistant to cariogenic acids. This allows fluoride to prevent decay as well as remineralize incipient lesions.

Baby boomers have come to expect that they will retain their teeth for their entire lives. Unlike their parents who might have believed that everyone will eventually need dentures, boomers have decided to spend significant time and money in preserving their dentition. Fluoride in all its forms has been a powerful weapon in the fight to preserve our smiles.

Since the early days of fluoride the effect has been astounding. Edentulism in people 45-54 years of age in the early 1960s was around 20 percent, but by the late 1980s the number had dropped to about nine percent.

Fluoride has brought dental medicine a long way in the last 60 years. The CDC was justified in naming water fluoridation one of the top 10 public health achievements. Fluoride will continue to protect our smiles and form the cornerstone of the minimally invasive dental medicine practice of the future. – WK

#26 Power Scalers

The technology adapted to power scalers includes magnetostrictive, piezoelectric and sonic, to remove hard and soft dental deposits, both supragingival and subgingival. Although first developed in the 1950s as a failed drilling instrument for caries excavation, it was adapted for plaque and calculus removal. Power scalers prove to be a faster, more comfortable deplaquing and calculus removal method for patients and clinicians who appreciate less stress to hand and arm muscles and faster deposit removal. – TO

#27 Sealants

Deep pits and fissures on occlusal surfaces of posterior teeth are risk factors for caries that toothbrushing cannot keep clean. Pits and fissures can be completely sealed with either filled or unfilled sealants that effectively keep out sugar, bacteria and the acid responsible for dissolving enamel. Sealants are applied routinely in the dental office and in public health school sealant programs across the country. Preventing occlusal caries is a significant step in helping patients achieve the goal of living caries-free – and as a result, maybe a bit more carefree as well. – TO
Apex Locators

If you are still depending on radiographic measurements for root canal therapy, you should really reconsider. With electronic apex locators the basic principal is the measurable electrical resistance in the biological tissues in and around a tooth. An entire root canal can be done with a great deal of confidence with only two X-rays – one at the beginning and end. The electrical circuitry is more accurate than an X-ray because it does not depend on the angle of the head of the X-ray machine, the placement of the film or sensor, or the position of the patient. X-rays require time to set up, take and develop, not to mention the cost. In addition, there is a huge reduction of ionizing radiation for both the patient and the office staff – a wonderful benefit for pregnant patients, as well as those recently exposed to radiation for cancer treatment and tests.

All in all, electric apex locators have become an essential instrument to dentists. As with most dental instruments there are several apex locators on the market. They’ve certainly improved since their inception in terms of type of electrical current being generated, ease of use and accuracy, as well as shape, size and cost.

They might not be new to dentist’s armamentarium, seeing that they’ve been around since the 1960s, but apex locators like the Root ZX, or its dinosaur cousin the Neosono-D have played a large part in root canal therapy – then and now. – MG

NiTi Endo Files

Nickel titanium (NiTi) files have given both specialists and general practitioners alike the ability to routinely create shapes once only imagined with hand files.

The importance of NiTi rotary files goes back to the basics of why we shape a root canal. We shape a root canal to increase the efficacy of our irrigation agent and to expedite obturation.

They have changed endodontic therapy because they have allowed us to significantly improve patient care and to accomplish it in a predictable, expeditious manner. – KK & DB

Practice Management

The days of eugenol smell and the little lady behind that ghastly glass barricade are long gone in dentistry.

Practice management has deconstructed and repaired many design, treatment and financial barricades over the last 30 years.

Yet, the major hurdle conquered has been patient fear. Efficient systems eliminating almost all reception room waiting and providing quick treatment protocols have been a godsend. The advent of stronger and virtually painless injections and better office ambiance increase real patient comfort. Most of all, team harmony and positive attitude have crushed the fear quotient.

Practice management has brought the fun factor to dentistry. – D. Carlsen

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**#31 Dental Hygienists**

Irene Newman provided preventive and periodontal support services to dental patients for Dr. Alfred C. Fones in Bridgeport, Connecticut, in 1906. Since then, the dental hygienist has been crucial to dentistry — as an oral health coach of the dental practice, providing education, motivation and prevention as well as periodontal therapy. The dental hygienist frees up the dentist to provide dental restorative and specialty care while answering patients’ questions about treatment and proposed cosmetic options. With a healthy mouth, patients can consider elective dental care. – TO

**Caries Detection**

Caries detection has come a long way from an oral examination with a mirror, probe and X-rays. Film speed went higher and higher with an associated loss of resolution. The loss in resolution was associated with that required to diagnose an interproximal lesion at about the time it would be deemed ready for restoration. This led to many occlusal lesions being missed until they were nearly pulp exposures. Technologies developed over the last 10 to 15 years have seen early accurate diagnosis of occlusal lesions become a simple clinical reality. This early detection allows for minimally invasive repair of the fissure structures before the biomechanical integrity of the tooth has been compromised, thereby reducing the long term sequelae for the patients.

The first effective technology was the DIAGNOdent from KaVo that utilizes laser fluorescence to detect damage to enamel in the walls of the fissures. There are now several similar products on the market as well as imaging systems such as quantitative laser fluorescence and techniques using light fluorescence and imaging software to highlight areas of fissure demineralization. The ability to diagnose early and accurately lead to the development of techniques like micro air abrasion and the use of fissureotomy burs to carefully dissect out the demineralized tooth structure and avoid compromising biomechanical stability.

White spots and cavities are simply the signs and symptoms of a bacterial infection, or diseased biofilm which is known as caries. True caries diagnosis is the detection and diagnosis of a biofilm that has reached a point where the bacterial population is such that it can damage the underlying tooth structure. The selection pressure for the development of a cariogenic biofilm is low pH. Utilizing this phenomenon, a simple 15-second biofilm fluorescence test known as CariScreen has been developed that detects the presence of disease levels of acidogenic, aciduric bacteria in the biofilm, rather than waiting to clinically observe the damage the diseased biofilm is causing to the teeth. – GM

**#32 Triple Trays**

Commonly referred to as Triple Trays (a trademark of Premier), quadrant impression trays have infiltrated the profession so deeply that they are commonplace. Their ability to capture prep, opposing arch and bite registration in one impression had never been done before. While there are still some non-believers, the quadrant impression tray has become standard of care for most single tooth restorations. – TG

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Curing Lights

1980 was the last period of time that restorative dentistry was performed without curing lights. To do an anterior restoration, dentists mixed Concise and had about 30 seconds to place it in the restoration before the material started to set. This was not always feasible and because of that, composite restorations did not last very long. UV-cured material was introduced – Nuva Fil, then Prisma Fil. By the mid-80s, every anterior restoration was done with a curing light. That total change in how anterior dentistry was done took less than five years. Now of course, the majority of posterior restorations are done with the use of a curing light – from veneers to porcelain crowns, to bonding agents. Needless to say, dentistry took an exponential leap forward with the introduction of light cured materials and the modern curing light. – HG

Patients can now achieve the smile of their dreams without the time required for orthodontics or the need to aggressively prepare the teeth for full coverage crowns. Many dentists now see dentistry as a means to improve their patients’ self-image, rather than just eliminate disease and alleviate pain.

New techniques and materials are changing people’s lives, and it’s no wonder many clinicians now enjoy going to work to share these advances in technology with their patients. You are better at things that you truly enjoy. Not only are patients enjoying their new smiles, but as a direct result of utilizing porcelain veneers, dentists are enjoying it too. – DH

Handpieces

Remember the belt-driven handpieces of the old dental office? – the ones that could hardly cut through enamel and amalgam. Air driven highspeeds revolutionized dentistry. Not only could you easily drill through all materials with precision, but there was less vibration and increased patient comfort. Now, one step further are electric handpieces. They generate much more torque with less vibration. Without the evolution of handpieces, we’d be hard pressed to do veneer preps… or any precision restorative work for that matter. – HG

In December 1970, Richard Nixon signed a bill under the Occupational Safety and Health Act essentially making gloveless wet-finger dentistry obsolete. OSHA was burdensome in its early years. Dentists were required to wear gloves, masks, and make sure the sterile environment was up-to-code. Dentists had to have more significant training, better communication and legal documentation, all at their own expense. It took years to see the benefits. But now, although the legalities still occasionally prove taxing, every time you slip on a pair of gloves, you prevent transmitting HIV/AIDS, hepatitis and other blood-borne pathogens. You are more aware of the chemicals in your products and you are more careful about the environment in which you practice. Not only are you protecting patients, but you’re protecting yourself – certainly a change for the better. – CP
Marketing and Advertising

Long gone are the days of opening up shop, hanging a shingle and waiting for dental patients to flood your waiting room. They need to know you exist, what kinds of services you provide – and even more, who you are as a person. And as marketing has changed, so has your involvement with it. – BL

Practice Web Sites

How does a patient choose between two doctors with the same academic and practice experience in the same area? If we had the answer, we’d tell you. However, we do know that good reviews and a prominent Internet presence can’t hurt.

Since the advent of practice Web sites, they have varied drastically from each other. Some dentists want templates, others want to create their sites custom. Some pay the big bucks, and some want to attempt the effort themselves. Web sites range from minimal “business-card-like” templates, to flashy strobe-light ads and features, to a more education-based approach. Whatever your preference, style or budget, there are options. And your site, depending on the quality, is likely to be the catalyst in driving patients either in or out of your doors. – CP

Cosmetic Dentistry

Cosmetic dentistry created a shift from patients seeking need-based dentistry to desiring straight, healthy pearly whites. Patients who avoided the dentist for years started calling because they wanted a nicer smile. We have reality TV shows like Extreme Makeover to partially thank for this.

The consumer looking to have cosmetic dentistry is actually looking for a dental office that has a different aesthetic as well. So dentists are changing everything from office décor, to the clothes on their backs all for the psychology of patients’ treatment decisions. Patients seek dentists who are up-to-date with the latest techniques and equipped with the latest gadgets in hopes of achieving the perfect smile. Aesthetic complacency is being challenged, as dentists are given more tools to help provide uncompromised cosmetic results with more conservative techniques.

Cosmetic dentistry has not only revolutionized the way we practice dentistry, but the manner in which we present and perform it. Today, most every dentist advertises general and cosmetic dentistry, but must continue to be aware that the word “cosmetic” is not just a descriptive adjective, but a constantly evolving expectation. – JO

Pankey Institute

In the 1930s, Drs. Pankey, Mann and Schuyler developed a comprehensive system for diagnosis and treatment of complex restorative cases, including occlusal management. After four decades of trial improvement, many long-lasting cases were documented. Starting in 1970, their seminal occlusal studies were advanced by The Pankey Institute and Dr. Peter Dawson. In their continuum courses, more than 20,000 dentists have traveled to South Florida and learned that, with centric relation as a reference point, one can develop harmonious functional contacts and anterior guidance in excursions. When you want to learn about the complex concept of occlusion, you go to the horse’s mouth. – MM
**Insurance**

Dental insurance, once only a luxury to the wealthy, became a common supplement to general health insurance in the 1970s. As the connection between oral health and system health became more prominent in health studies, dental insurance became more prominent as well. Initially the goal was to make affordable health care available to people who would normally not seek care due to costs.

The average maximum coverage from dental insurance providers averages about $1,500 per year, and has not increased or accounted for inflation since insurance's introduction to the dentistry scene in the '70s. This lack of coverage limits what dentists can provide, since prices for supplies, equipment and time have increased significantly.

As a game changer, insurance has dual-citizenship in both negative and positive territory. It's just one more area in which dentists and patients alike must weigh the cost of treatment to the quality. – CP

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**Online Continuing Education**

It's easy to continue with the status quo once you are out of school. It's easy to find yourself 30 years later still using the same techniques, tools and equipment as you did when you first started... It's easy, unless you're proactive about not getting stuck. Thankfully dentistry as a profession has taken a stance on making continuing education a priority; to always staying current on information and techniques.

By means of video, Webinar and PowerPoint presentation, among many other mediums, you can complete your CE requirements right from the comfort of your own home. Not only are they available 24 hours a day, but you can complete them in your underwear nonetheless! – CP

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**Corporate Dentistry**

Although the term is newly coined, corporate dentistry has been around for the better part of the 20th century, and made popular by Aspen, Western, BrightNow and Heartland, to name a few.

Many just-out-of-school dentists who don't want to run their own businesses or don't have the means of starting their own practices find the option to work for a corporate dental practice attractive. Corporate dental practices streamline accounts payable and accounts receivable, payroll, supply and equipment procurement and marketing. It's all very appealing to a dentist who has no interest in maintaining the business side of a practice.

However, with options comes controversy.

They provide options for dentists, yet take options away from others. They provide quality care at decreased cost, but opponents say they might not have the same one-on-one relationships with patients. Sounds like a mixed bag of treats... and one thing Dentaltown is happy to remain a forum in which the debate can continue. – CP
Rising overhead for dentists creates rising costs for patients. These increased costs come with the need to adapt. Flexible patient financing has opened up a whole new avenue for people with limited or no insurance to still receive the care they need, and for you to still be paid. Third-party patient financing solutions like CareCredit, ChaseHealthAdvance, and Citi Health Card assist in providing an affordable plan to patients seeking more flexible payment options. If patients can afford care, you get patients through your door who might not have normally sought dental care and you get paid for your services. It's a win-win-win. – CP

#46 CBCT

From airway analysis, preprocedure outcome prediction, periodontal status, tooth and implant assessment and positioning guidance, surgical assessment, appliance preparation, facial pain patients and so much more, Cone Beam Computed Tomography (CBCT) is a quantum leap for dentistry.

Adding the third dimension facilitates a confidence that has been eluding practitioners. The unlimited opportunities that CBCT offers will be guided by our imaginations. Along with optimal care, CBCT is a key component in eliminating malpractice cases through facilitating a transparent understanding and meaningful communication with the patient and the various health care providers involved with treatment. CBCT is a 360-degree turn for dentistry. – DM

#47 HIPAA


It’s more than just having firewalls and not detailing to Mrs. Jones your draining of a purulent fistula on Mrs. Fillmore last week. It’s more than handing out a never-read form that you might have noticed in 2003. It’s important to your patients’ security.

So please, at your earliest convenience, Google HIPAA Administrative Simplification Regulation Text March 2006 and merrily browse segments like the following from page 37:

(B) The covered entity is responsible for complying with §164.316(a) and §164.530(i), pertaining to the implementation of policies and procedures to ensure compliance with applicable requirements of this section and subparts C and E of this part, including the safeguard requirements in paragraph (a)(2)(ii) of this section.

(C) The covered entity is responsible for designating the components that are part of one or more health care components of the covered entity and documenting the designation in accordance with paragraph (c) of this section, provided that, if the covered entity designates a health care component or components, it must include any component that would meet the definition of covered entity if it were a separate legal entity. Health care component(s) also may include a component only to the extent that it performs:

(1) Covered functions; or

(2) Activities that would make such component a business associate of a component that performs covered functions if the two components were separate legal entities.

And you all thought Dentaltown was fascinating... HIPAA is the hippest thing to happen to dentistry since, well, OSHA. – D. Carlsen

continued on page 110
Posterior Composites

Placing Class II posterior composites was nearly impossible to accomplish in a predictable fashion until the advent of devices designed specifically for creating a reliable contact. Since composite cannot be placed in the same fashion as amalgam, we needed something to provide a firm contact with the proper shape. Leave it to dental inventors to develop these great solutions. The items that we use in our practices every day include: Composi-Tight by Garrison, V3 Ring by Triodont, Palodent by DENTSPLY Caulk, Omni-Matrix by Ultradent and many more. – TG

Sedation Dentistry

Nitrous oxide was first used as an alternative to local anesthesia when a young dentist from Connecticut, Dr. Horace Wells had his tooth extracted by his associate, John Riggs in December 1844. Today inhalation sedation, nicknamed “laughing gas,” along with oral sedation and intravenous (IV) sedation have provided dentists with the ability to complete procedures faster and more efficiently. Many patients with a high dental anxiety and fear, a severe gag reflex, and even those with a difficulty getting numb from local sedation benefit from oral-conscious sedation. A dental procedure that once took an hour to complete and now can be completed in minutes might not be a “laughing” matter, but is certainly something to smile about. – ML

Sleep Medicine

Do a root canal and you might save a tooth; make an oral device for obstructive sleep apnea (OSA) and you might save a life. Although effective in treating sleep apnea, CPAP machines have poor patient compliance… which is why it was exciting in 2006 when it was announced that qualified dentists could administer oral appliance therapy for the condition.

Dentists play a large part in diagnosing and treating sleep apnea. So ask the STOP questions when doing patient evaluations. S: Do you snore loudly? T: Do you often feel tired, fatigued or sleepy during daytime? O: Has anyone observed you stop breathing during sleep? P: Do you have or are you being treated for high blood pressure? Positive responses to two of these questions indicate the patient is a higher risk of OSA than average. Further evaluation with an Epworth Sleepiness Scale or Berlin Questionnaire can help a clinician isolate patients who need attention.

It affects up to nine percent of males and four percent of females globally. So now that we have the power to do something about it, don’t hit the snooze button on dealing with patient’s sleep apnea in your practice. – MG

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What game changers did we miss? What made the list that you don’t think should have? Comment and discuss with your fellow Townies on the message boards of Dentaltown.com