Dr. Elliot Mechanic practices esthetic dentistry in Montreal, Quebec. He is Oral Health's editorial board member for esthetics.

Walk, Don't Run

It seems to me that dentists are being bombarded from different directions with new technologies. And if we were to believe the claims and the hype that many of them claim, it would seem as if we are shortchanging our patients if we are not providing them with the newest and best(?). Granted, change is a good thing as that is the way of progress. However, dentists should be judicial and prudent before jumping on any new technology bandwagon, as it is our patients and ourselves who pay the price when the advertised claims are not substantiated.

For over three decades, I have fervently pursued continuing education. This has been instrumental in directing the clinical choices I have made. My discovery of Myron's Chameleon veneers in 1983 changed my path in dentistry and is the reason I am writing in Oral Health today. Thirty years of working with dental implants have provided me with a wealth of experience and a broad vocabulary of prosthetic solutions. But can I say the same for some of the other miracle materials that have been introduced to the profession claiming to be revolutionary?

As a very early user of porcelain laminates, I became a pioneer in the field of aesthetic dentistry. Several types of metal free crowns were subsequently introduced throughout the 1980's.... most notably, Dicor. There was a lot of advertising and hype about these crowns and many dentists began to routinely use the Dicor in their practices. Unfortunately, the breakage rate of these crowns was extremely high, causing a multitude of free remakes and upset patients. It is essential to realize that it is the dentist who assumes the responsibility and liability for the treatment chosen and the materials used.

Over the ensuing years, many materials have come and gone. Consequently, I have used several restorative materials and adhesives that did not fulfill the promise that they claimed. Today's go to materials for metal free prosthetics are lithium disilicate and zirconia. Layering these materials with aesthetic porcelain has yielded a significant number of porcelain fractures and monolithic forms of these restorations, with minimal or no layering, seems to be the safest direction to go. Studies have shown the incidence of fractures of zirconia layered with porcelain to be as high as 25 percent. The fact that zirconia can accept forces far greater than natural teeth leads me to believe that compromised teeth treated with zirconia crowns will also have many root fractures, causing them to be lost in the coming years. The jury is still out.

Going digital seems to be the way to go. But does that mean that conventional dentistry is no good? Digital radiography, caries detection and intraoral scanners are here to stay, and in my opinion, will become the dental norm! However, one must be judicious about when to jump on a new technology. The time must be right and beneficial for you. Often new is not better. You must be honest with yourself and decide what works best in your hands.

First and foremost, I don't believe that any dentist should build an office that they can't afford and make expensive acquisitions that they will never use. We all seem to believe that if we buy something new, our work will automatically improve and we will get busier. Some of the finest practitioners I know practice old school.

On numerous occasions, I have been

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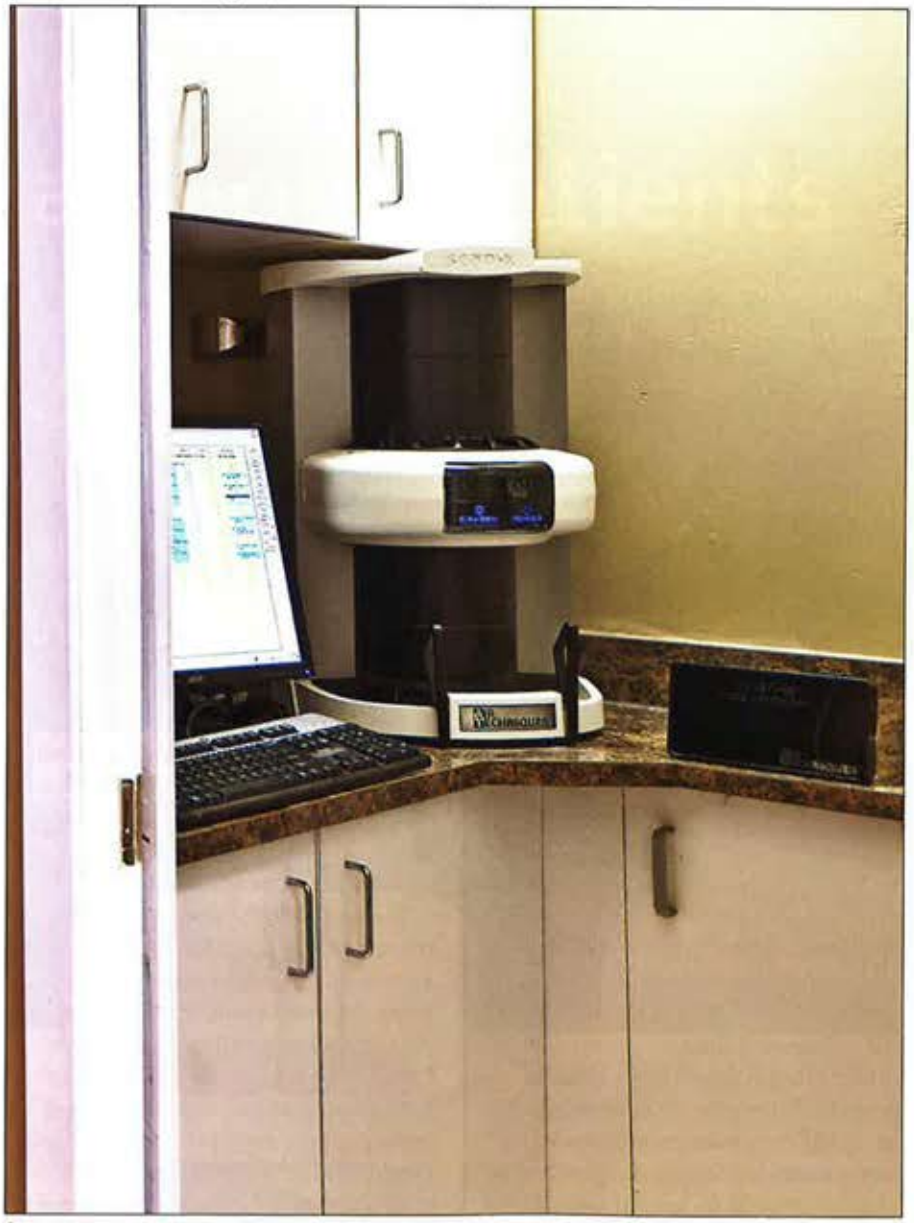
pitched in office CAD CAM milling as if I am the only dinosaur left still using a dental lab. I know several dentists who are masters of this technology and produce restorations rivaling the finest lab fabricated ones. However, these practitioners live and breathe for CAD CAM technology. They take great pride in having total control and producing the final product themselves. However, this takes a lot of time, skill, practice and dedication. In my experience, the average practitioner does not produce in office restorations to this level. What really gets me is the way the sales pitch goes. Quality is never at the forefront. It is all about the money. "Doctor … if you produce only nine crowns a month, it will pay for itself." "The crown only has to last five years and then the insurance will pay for a new one." "The crown will only cost you xx dollars." "It will only take one visit." What is wrong with this picture? We all see restorations on a daily basis that are in patients' mouths for 20, 30, 40 years and more. So who is the winner with office milling, the patient or the dentist? Doesn't quality count? Would you intentionally purchase a substandard parachute or choose an inexpensive heart valve for yourself?



Scan X System

Recently our office has made the move back to digital radiography. When digital x-rays were first introduced over a decade ago, I just had to be the one to have it first! Unfortunately I should have looked harder before I impulsively purchased and thoroughly analyzed what the needs of my practice were. In our practice we have four full-time experienced hygienists and an extremely demanding client base. We found that there was significant user variation of the digital sensors between hygienists and were confronted with incidents of false information on the X-rays, due to user error. As well, we did not find that the patients recognized, or appreciated, the lower dose of radiation needed. It was still an X-ray to them. However, the number one reason why we abandoned digital after using it for six months was because in our practice, the patients absolutely detested it, especially for full mouth surveys. I appreciate that I have demanding patients but I try to listen to my customer and do whatever it takes to make them comfortable and happy. The funny thing was that when we reverted back to film, very few patients even noticed or cared that we weren't digital.

Over the past few years, it was obvious that for practical purposes we had to move back to digital radiography. Much progress had taken place. The sensors had been improved and the digital form is more easily transmitted, organized and stored in the patient's records. This time around, I was really going to do my homework and study all my options. I was going to judiciously try before I buy!

After months of studying what was currently on the market and road testing several of the leading systems, my staff and myself unanimously decided that

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the Scan X Phosphor Plate system was best suited to our office needs. The Scan X system is similar to conventional film X-rays with the images stored on photo sensitive phosphor plates that are ten times thinner than hard digital sensors. With proper care, these sensors can be used thousands of times. Most of all, they are comfortable for our patients. The sensors have rounded corners, just like film, and come in eight image sizes including panoramic, cephlometric and TMJ sizes. They give an extremely high image quality and can be manipulated digitally as needed. In our office, we have two full-time sterilization and lab assistants, so processing the images quickly was not an issue. However, the biggest benefit to us was that there was absolutely no learning curve and user variation is low.

We all know the benefits of digital radiographs. They are clean, easily transmitted to other dentists and insurance companies, require almost no maintenance, are easy to file and retrieve in patient files and if used properly have very high image quality. In a large practice, it is by far the lowest cost alternative and requires no sensor insurance and no need to upgrade your panorex. If required, we can easily pair our phosphor plate system with a few digital sensors for a digital hybrid setup. Choosing our Scan X digital X-ray system was one choice we have never regretted.

Changing restorative materials in a dental office is a really big deal! But not to a dental sales representative, as they constantly pitch new product to us, thinking that we are flexible and that we can turn on a dime. I have usually been faced with staff resistance when trying to implement something new and have many drawers full of materials I have abandoned in favour of something else or something I had been previously using. I have always intended to use up these products but somehow they are still celebrating birthdays buried in the

Dental Wings i Series Impression Scanner

back of my operatory drawers. I always try to remember when a major manufacturer released a "revolutionary" posterior restorative material with a proprietary bonding agent that changed colors to indicate it was working to it's full potential. Unfortunately, I bought the hype "whole hog" and not only did I add to my pile of abandoned material but had to change almost every restoration I used this material for within a few years. Needless to say, the manufacturer quickly withdrew the material from the marketplace. But how did that help my patients or myself?

There have been several fine materials that I have been using for over 20 years and I honestly don't think that I will ever give them up. Reenamel microfilm, Luxatemp and Luxabite have changed the way I practice dentistry. I have yet been presented anything that can outperform them. They are my gold standards. Likewise, Empress and Emax have redefined indirect fixed restorative dentistry allowing my patients' expectations and dental dreams to be realized. Recently there have been some new additions added to my personal category of magic dental materials. These include Speedee Buildup Core, Tetric EvoCeram Bulk Fill, Adhese Universal All in one click, All-Bond Universal bond and the Valo curing light.

Our integration of Tetric bulk fill posterior composite into our protocol has made the placement of posterior direct restorations simple and predictable. There is no need for special armamentarium and just one shade, EVA, satisfies the majority of restorative situations. The Adhese bonding pen is simple to use, does not waste material and really does limit postoperative sensitivity. Absolutely brilliant!

Intraoral digital scanning is a hot topic today and in my opinion, will most definitely be the standard of the future. How can it not be? It is easy, comfortable for the patient, quickly transmitted to the lab, extremely versatile and economical. However, is intraoral scanning technologically where it needs to be at this moment for general acceptance? It is still too expensive for the average practitioner, it has a definite learning curve, and I can't help but wonder if all the scanned data is actually captured or if missing information is digitally corrected by the software. Without a doubt, the cost of scanning technology will reduce in price and scanning will get even easier and more accurate than it currently is. At the present time, I am definitely going to "look before I leap" as I believe that there currently exists a low cost, easy-to-use alternative that will immediately allow me to go digital without significant cost and adaptation. It is called the Dental Wings i Scan. All that the dentist has to do is to take a conventional impression using a scannable impression material and then place it at their convenience in the I Scan. There is little learning curve and the I Scan is extremely cost effective. The benefits are obvious: instant transmission, lower lab costs and immediately bringing the average dental practice into the digital world.

The profession of dentistry is going through major evolution. Patient needs are changing and the way dentistry is being delivered is not what it was in the past, nor what it will be in the future. I believe we may even be using robotic tooth preparation someday soon. I hope everyone enjoys this issue of Oral Health and as always, if anyone wants to contact me for any reason, please do not hesitate to do so. **OH**