



When less is more — technology increases minimally invasive procedures

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When technology improves your reputation, adds to your repertoire, and helps to reduce pain and anxiety, that counts toward creating a better experience for both the dentist and patient. **From cavity detectors to cone beam, over the years researchers and engineers of dental instruments and equipment have EMPOWERED DENTISTS TO IMPLEMENT MORE MINIMALLY INVASIVE TREATMENTS.**

A caries detection system, such as KaVo's DIAGNOdent[®], can find decay or unhealthy tooth structure at the earliest point, avoiding unnecessary preparation. With a painless probe that measures laser fluorescence, the unit actually detects cavities below the surface of the tooth. After detection, the use of air abrasion instruments or lasers allows for minimization of preps.

Even when caries is detected, with the resins and composites developed over the past 30 years, we don't have to remove nearly as much tooth structure as we did when using amalgam. Before these new materials with their bonding capacity came along, in some cases dentists had to take out the whole back side of the tooth to get enough amalgam in there to work.

While laser detection assists in finding cavities, we still need X-rays to give us the most comprehensive inside story of the teeth. When looking for decay between the teeth and on the roots, digital X-ray offers benefits that traditional film cannot. With high-definition sensors such as the DEXIS[®] Platinum, decay becomes visible at the earliest stage, even interproximal decay. If we can detect the decay early enough, instead of cutting a big distal box on the side of the tooth, we can perform a tunnel prep technique where we can access the small lesion, yet leave the marginal ridge of the tooth intact for natural form. With early detection, we can take more frequent advantage of

this long-standing, great technique.

Cone beam 3-D technology, another tool that reduces the necessity for invasive procedures, has a major impact on oral surgery, detection of periodontal defects, and implant procedures. With the cone beam scan's ability to produce images that can be sliced, rotated, and viewed from any direction, we know what we are up against even before starting surgery. We know the depth and width of the bone, and we don't have to make a big incision to find out this precise information.

Besides eliminating much of the need for exploratory surgery, we are able to effectively plan minimally invasive surgery. Thanks to my medium-field-of-view width cone beam (Gendex GXCB-500 HD[™]), many times I can plan an

implant and go right through the tissue without even having to make an incision. This results in a minimal spot on the gum tissue and reduces blood loss and the need for sutures. These images also allow me to know that I am not going to run into certain glitches or unexpected conditions during the procedure. This reduces my stress and helps save time and money by preventing the waste of extra "standby" materials.

During these tough economic times, imagine how much patients appreciate a practice that invests in technology to save them not only pain, but time and money. Equipment that can shorten chairtime and even eliminate extra office visits means patients can take less time off from work. Our patients notice that we have invested in the technology not just to make life easier for ourselves, but also to reduce the hassles and stress on them. The increase in patient loyalty, quicker case acceptance, and referrals to friends and family make minimally invasive procedures a maximum priority in our office. **DE**

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