

MID (Minimally Invasive Dentistry)

a Mindset

The concept of minimally invasive dentistry is a progressive concept which unfortunately is taking much longer to be mainstream in the dental field. Every patient deserves to have the most recently advocated care that results in the most predictable outcome. The outcome includes the concept of longevity. MID incorporates the communication skill needed to help patients understand that options are available which he or she may not be aware of. This concept is not specific to a dental procedure but is an overall approach to patient care. When one considers that a small filling preserves strength in a tooth, it seems obvious that a small filling would be the treatment of choice where appropriate. Another example, every root canal that saves a tooth is less invasive and more preserving than an extraction. Every implant placed between virgin teeth is more beneficial and predictable than a bridge. By exercising MID, treatment can be more precise and less invasive, thus preserving the oral tissues and dental structures from unnecessary substance loss during procedures. The result is an unprecedented level of clinical excellence in treatment.

Each time a patient presents with a problem, whether it be a small area of decay or an edentulous ridge, an opportunity presents to perform the least invasive procedure for a good outcome. When the focus is on using technology to treat each condition, the outcome can be further enhanced. For example, detecting decay can set a basic standard of care. For more than a century, an explorer (the sharp pointy tool) has been used along with x-rays to find caries. However, research has shown that an explorer often does not find decay because of the nature of decay, especially with the new model indicating that cavitation takes place from the inside out.

Since the introduction of fluoridation, outwardly detectable decay has been dramatically reduced. Because of the strengthening that fluoride creates in the outer layer of tooth enamel, the pattern of decay has changed. Rather than large areas of a tooth surface succumbing to the attack of plaque acid, decay now appears as small discreet areas, often undetectable to dental explorer, yet visible as color change inside the tooth under magnification, which when opened has a balloon effect compromising an extensive amount of tooth structure. Also caries caused by streptococcus mutans and lactobacillus can be spread by inoculation from one tooth to another. By using laser florescence and high magnification to find cavitation at an early stage we are able to treat only the decay that meets a quantifiable standard. Why wait until the

cavitation process has progressed further until it is detrimental to the integrity of the tooth?

MANAGING THE PROBLEM

Before treating a tooth invasively, controlling the disease process that infected a tooth is paramount. By determining which habits, diets, and prevention methods a patient uses (or does not use) and by evaluating saliva flow and its quality, we can provide a plan for controlling the oral environment. For example, a revolutionary cavity reversal system can be prescribed, and sealants can be applied. Xylitol chewing gum can cut lactic acid concentration by 22%. Also, other naturopathic remedies can be utilized. The total concept of prevention needs to be addressed before remedial care is rendered so the disease process will be under control.

If a tooth has an abnormal wear or is fractured needing a crown or if patient complains of TMJ pain, it is important to evaluate the cause for the fracture or pain. It may be due to abnormal bite which needs attention and correction. A less invasive orthodontic procedure (Invisalign) is now available for the patient who has difficulty with oral hygiene maintenance, or for social reasons. By addressing bite, the entire dentition and its support system is protected for the long term and patient is not in discomfort.

Another significant concern is undiagnosed sleep apnea which can cause stroke, hypertension, heart attack etc. It is important to identify intra oral signs and render evaluation and treatment.

TREATING PROBLEMS WITH TECHNOLOGY AND MID

Today, technology provides us with more options to provide less invasive care. For tooth decay, the concept is to prepare less, thus preserving more of the tooth structure. With this preservation comes the understanding that fewer teeth may break, resulting in fewer root canals, or crowns, and patients will have more predictable long-term outcomes. An added benefit, fewer injections and less frequent drilling are predicted, thereby creating a whole generation of non-fearful adults.



Figure 1. Micro-abrasion of lesions.

Figure 2. Restored minimally invaded carious lesions.

REDUCING FEAR WITH MID

It is not uncommon to hear of a patient's bad experience for which he or she left their previous dentist. Research found that the most highly fear-arousing stimuli were associated with the dentist's/ any member of dental team behavior toward patients which affected patients' feelings about seeing a dentist. This can be their bedside mannerism, professional confidence or communication skills. With this research in mind, it would seem that to truly practice MID, one would understand the patients' psychological needs. Rendering care with the support patients need would go a long way towards the concept of least invasion. We at Permalla Dental Care, strive to provide our patients with all the support they need to accomplish and maintain their healthy smiles for a life time while providing an outstanding experience.

We believe MID is the new "Standard of care" when treating patients' dental needs. Less invasive procedures provide for a greater degree of predictability. There are usually several treatment options for any given clinical condition. It our responsibility that those options are offered to patients with sufficient explanation, so they make an informed decision regarding their treatment choice.