

## AIR-ABRASIVE MICRO-DENTISTRY® BONDINGS:

Some things every Parent, Patient, and Dental Care Giver needs to know about  
“Air-Abrasive MicroDentistry® Bondings”

Or my opinions after three decades of experience, practice, research, and teaching

A Brief History of a Scientific Odyssey Through Life

Part two of a series on Early Intervention

A Position Paper on “Bondings”:

“One definition of insanity is to keep on doing the same thing expecting different results.”

Often we are asked to explain in a simple manner the benefits our revolutionary new approach to dentistry, MicroDentistry, has to offer you and your children. Simply put, our methods are designed to scientifically identify and remove only unsound tooth structure while leaving as much sound tooth structure as possible. Removing tooth decay can be compared to cutting your fingernails. The fingernail is dead tissue - does it hurt to cut your fingernail? Then why should it hurt to have decay removed from your teeth? The answer? It shouldn't. After two decades of teaching this technology, my opinion is that dentists who have to routinely deaden teeth by giving shots do so either because they cannot remove the decay without cutting live, healthy tooth structure or simply because they refuse to learn how to keep from destroying live tooth structure.

My dental practice philosophy, "To do no harm," is reflected in everything I teach and everything I do related to the care of my patient's teeth. Human teeth are made and designed by a higher being, our God, and are the result of millions of years of steady improvement. In general, the less we do to teeth the less potential for damage regardless of good or evil intention. Perhaps more importantly my life's mission statement, reflects my dedication to our practice philosophy-- "To Change the Practice of Dentistry for the Benefit of the Patient."

In reality, the *teaching* of my life's work, MicroDentistry, is a very complicated subject that is very difficult for dentists to grasp and implement, primarily because of the way we dentists were all taught. *All* of the dental universities throughout the world still teach dentistry based on antiquated, unscientific, and unjustified philosophies dedicated to amputation of sound tooth structure based on 1891 technology, although the Minimally Invasive Dentistry (MID) movement has completely repudiated these techniques. As a result, my professional lifetime has been split equally between researching this subject and my practice of dentistry.

For simplicity, there are three levels of “Bonding” Procedures:

1. “Early Intervention” MicroDentistry procedures on recently erupted teeth. We define these “Early Intervention” procedures as all MD procedures that do not require anesthesia.
2. “Double Bond” procedures for first time intervention in “deep decay”. Deep Decay is defined as any procedure beyond enamel that requires anesthesia.
3. “Double Bond” replacement procedures. Any procedure that requires the removal of a previous filling material and the separate replacement of dentin and enamel, thus a “double bond”. Often requires anesthesia.

This article addresses the “Early Intervention” MicroDentistry procedure that replaces

“Sealants”.

1. “Sealants” are the stop gap and unreliable procedure of painting plastics on poorly prepared teeth and hoping to stop decay. This has a rather dismal failure rate.
2. Another procedure accepted by dentistry to replace ‘Sealants’ is to take a high speed drill and mindlessly trace out the healthy enamel of the pit, fissure, and groove system of the tooth hoping to remove any early decay and then painting in a plastic. This is sometimes referred to as a “Minimal Preparation Restoration” or a “Minimally Invasive Procedure”. This has a failure rate approaching 25% or greater at ten years, and commonly requires anesthesia.
3. Last, is the MicroDentistry procedure of specifically targeting unsound tooth structure with either Ultrasonics and Air Abrasion or Air Abrasion alone. Air Abrasion assisted MicroDentistry procedures are extremely reliable when the resulting voids are filled with Glass Ionomer Cement.

We are often asked about the benefits of our MicroDentistry bonding procedures compared to “Minimally Invasive Procedures”, the perception being that all bondings are the same, so “why can’t we get “it” cheaper elsewhere?” Rather than describing the procedure, which may be difficult and boring to try to understand, let’s start with the end product, the benefit. The benefit comes from “doing it right the first time.”

The benefit comes from the possibility of stopping decay permanently, for a lifetime of benefits. More than 70% of what we dentists do is directed at repairing the damage done by previous “restorations” that have failed, resulting in a cycle of repair and replacement. So don’t drill on a tooth and remove healthy tooth structure. (That’s not Rocket Science.)

We use three very simple adjuncts in our common sense MicroDentistry approach quest for drill free, pain free dentistry. *Magnification, decay detection adjuncts, and micro-instrumentation*. Why magnification? Because the dental disease of decay is caused by microscopic bacteria and starts on the microscopic level. Why decay detection adjuncts? Because decay can be identified and removed without damaging sound tooth structure. Why micro-instrumentation? Because it takes very small tools to remove only the decay without hurting the tooth and the patient. Besides, *drilling on teeth not only hurts, but drilling also shatters enamel!!!* Our methods are designed to be as drill-free and shot-free as possible.

How do you differentiate between the apples and oranges of “sealant” “bonding” procedures as initial procedures in newly erupted teeth?

Ask a dentist this one simple question:

**“Do you offer a professional lifetime warranty on your procedure?”** This one simple question uncovers the difference between what we offer our patients and what is otherwise available.

What we offer is a professional lifetime warranty on the restorations we place in normal posterior teeth that erupt under our care. Why? Because we “do it right the first time”. We use early diagnosis to detect decay long before it is visible to the patient in the teeth. We then use MicroDentistry techniques to target and remove only the decay, leaving the healthy tooth structure. Then we use

bondings to stop recurrent decay and return the tooth to as near a natural state as we possibly can.

The result? A lifetime of benefits for your children. The vast majority of the restorations dentists do are repairs to teeth of the damage other dentists have done by drilling out mostly healthy tooth structure with a high speed drill and then replacing healthy tooth structure with silver-mercury fillings. After two decades of offering bonded restorations for the chewing surface of posterior teeth that erupt under our care, we seldom have to do more to our old bondings than simply resurface the bonding.

In my opinion, I believe it is time to move on to modern, scientifically based technology, leaving the technologies of the last Century where it belongs, in the last Century. If conservation of tooth structure and reduction of future dental procedures is important for you, your children, grandchildren, or friends, please contact us.

A longer, more complete version of this article will soon be available on the [www.TIADS.com](http://www.TIADS.com) website soon.

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Typical Failed Sealant.



Decay detected and removed using MicroDentistry procedures. Only the unsound tooth structure damaged by decay and the sealant was removed.