

Orthodontic “Debonding”

What every Patient and Parent needs to know about placing and removing Orthodontic Braces

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

When I started practice more than three decades ago, I immediately found myself in a pitched battle with the area orthodontists over the unnecessary extraction of permanent bicuspid teeth. After several years into this battle, I was able to help change the practice of orthodontics in the Corpus Christi area to treatment based on the patient’s needs rather than economic advantage of the orthodontists. This resulted in saving innumerable permanent bicuspids from extraction.

For the last several years, I have been fighting a similar battle with the area’s orthodontists, but it was necessary to let the issue simmer until outside support could shed light on the subject within the local dental community. Until world renowned researcher and lecture, Dr. Gordon Christensen, brought this issue to light recently in a lecture in Corpus Christi, I didn’t have the support I needed to focus on this issue. The issue has been the indiscriminate destruction of the outer layer of enamel of front teeth for placement/removal of orthodontic bonding cement. It is time for the dental community to face up to this issue and take the proper steps to correct the problem.

Despite very vigorous objections on my part, the local orthodontists have continued to insist on indiscriminately grinding off the outer layer of tooth structure on the front teeth while generally having no demonstrable knowledge of this anatomical structure. Often, some removal of this outer layer can have little or no effect, but for patients in Refugio County where high levels of naturally occurring Fluoride affect this layer, many of our patients were losing a significant amount of tooth structure, affecting the esthetics of the teeth. My only recourse was to absolutely forbid the orthodontists and their assistants treating my patients from grinding on teeth. In order to minimize the damage from removing the orthodontic brackets, we have also offered to our patients of record, free of charge, removal of the orthodontic cement under our operating microscope.

Dr. Christensen has pointed out that even though orthodontists are among the highest paid professionals, they do not invest in the proper tools needed to prevent the destruction of this layer and resort to indiscriminate grinding on teeth to facilitate bonding brackets on teeth. Solving this problem is simple and requires a minimal investment related to their income. Here is a check list for your professional providing orthodontic treatment for you or your family. If any of these elements are missing, have your general dentist remove the cement if they can meet this criteria.

This criteria are my opinions for any orthodontist, dentist, or person placing or removing bonded orthodontic appliances who wishes to eliminate or minimize damage to natural tooth structure.

First, the operator placing or removing brackets bonded to enamel needs to overcome the general ignorance within this profession and inform herself or himself of what the anatomical structure of the outer layer of front teeth looks like and what it is.

Second, the professional in charge must invest in adequate lighting, which Dr. Christensen pointed out is generally missing in orthodontic offices.

Third, the operator needs adequate magnification to be able to see what is tooth, what is not, and what is cement.

Fourth, preparing the enamel for bonding by grinding on it is unnecessary, as is removing enamel to get the bonding cement off the teeth. Clean tooth structure will accept a bond, and it is not necessary to grind off healthy enamel to get to clean tooth structure.

There are several things that can be done to enhance the probability of success in bonding to any tooth structure, and the first thing is education, i.e. the operator needs to know why they are doing what they are doing rather than following a “cook book” of instructions. Properly cleaning the enamel surface can be accomplished with an inexpensive hand held sodium bicarbonate prophylaxis unit rather than grinding on the tooth. Also, indiscriminate removal of enamel along with bonding cement can be minimized by using a selective abrasive burr. Danville engineering makes a selective abrasive burr kit, item # 2540, that helps remove cement without much damage to underlying enamel (800 827 7940).

Feel free to share this information with any professional you enlist to provide orthodontics for you or your loved ones. Ask them to please not grind on the teeth of my patients. Following these simple rules will help minimize damage to the teeth during bonding and debonding.

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Picture:

Front teeth damaged by an orthodontist. The orthodontist denied that any damage was done to the teeth until shown this photograph.

