The return of tooth surface luster following bracket removal

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The removal of braces is an event looked forward to by every clinician and dreamed of by every patient. For the patient, it may simply mark the return of an uninhibited smile and a normal diet, but for the orthodontist, it is a time for improved oral hygiene and a return to health for both hard and soft tissues. When removing the brackets, however, the orthodontist uses a wide variety of methods to chip, scrape, and grind the remnants of bonding adhesive from the enamel surface. Does the debonded tooth surface have its original luster or is it dull and scarred from the sometimes vigorous removal procedure? What would it take to restore the enamel surface to as near its original condition as possible following the removal of bonded orthodontic attachments?

These questions were asked by Dr. Phillip Campbell several years ago when he discovered that one of his dental colleagues was reluctant to have orthodontic treatment started on his son. The dentist was concerned that the enamel on his son's teeth would be adversely affected as a result of bracket removal following treatment. He even suggested using cemented bands instead of the typical bonded appliances to avoid the perceived risks.

Not being one to shy away from a challenge, especially when posed by a professional friend, Dr. Campbell embarked upon a plan to convince the dentist that the removal a brackets could be handled in a safe and effective manner. He wanted his friend to know that restoring the tooth surface to its original condition was a realistic goal in his practice. The results of his efforts are published in this issue (Angle Orthod 1995;65(2):103-110).

Campbell began by surveying 72 clinical orthodontists who were members of two large study groups in Texas. He wanted to know what problems they had experienced with bracket removal and how they restored the enamel surfaces. His questions must have been intriguing because he received an 86% rate of return.

After determining that over 80% of the respondents had some problems with enamel scarring, Campbell conducted a pilot study to examine the various methods used to remove bulk resin from tooth surfaces. Following careful evaluation of the debonding procedures using electron photomicrographs, Campbell developed a rather simple four-step method of returning enamel surfaces to their pretreatment clinical appearance. He now looks forward to the return of his patients to their dental referring office at the completion of treatment.

Enjoy reading this paper and consider reviewing your own debonding technique. Better yet, ask your referring dentists how they view the treated orthodontic patient and what changes they would like to see. Dr. Campbell's Texas colleagues may not be so unique.