5. Among the adhesives with fluoride, debond values of the chemically cured and light-cured products were equivalent to each other and greater than that of the no-mix product.

6. Thirty-day storage in artificial saliva nearly doubled the debond load value of the no-mix adhesive compared with one-day storage, but had no effect on the chemically cured or light-cured adhesives.

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Commentary: Effect of cure rate and fluoride content on bracket resin debonding

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This paper should put to rest forever the concept that adding fluoride to bonding resins, as we now know them, is effective. The authors point out that fluoride is generally added to resins to minimize the possibility of white spot lesions/decalcification, and there has been a concern as to decreased bond strength.

The authors show very convincingly that neither tenet is valid: (1) fluoride is bound in the polymerization process and the amount of fluoride needed to prevent demineralization during orthodontic treatment is simply not released; and (2) the bond strength of the chemically cured and light-cured resins may be slightly enhanced.

The obvious question is: Why do we need fluoride that is not released effectively as a component of bonding resins? I submit that a slight increase in bond strength is insufficient reason.

There is no doubt that clinical orthodontists would be eager to have stronger bonding resins that could legitimately minimize demineralization in the noncompliant patient. Surely the manufacturers of these products know that the amount of fluoride released is negligible over the long-term, and therefore, ineffective for the purpose it was intended. Maybe it's time for manufacturers of these products to take a new look at developing a more effective method of preventing decalcification, or at least to openly disclose the amount of fluoride released over time from the polymerized resins.

The significance of this paper is that bond strength is one thing, and prevention of decalcification is another. My compliments to the authors.