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## Effect of contamination and etching on enamel bond strength of new light-cured glass ionomer cements

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### ABSTRACT

The effect of water and saliva contamination on the bond strength of metal orthodontic brackets cemented to etched (10% polyacrylic acid) and unetched human premolar enamel was investigated. Two bonding agents were used: one commercially available product (LC) and one experimental (EX) light-cured glass ionomer. Shear bond strength was measured after aging for 5 minutes, 15 minutes, and 24 hours. The results were compared by ANOVA and Scheffe's tests at  $p = 0.05$ . For LC, the bond strength of brackets bonded to etched enamel, with and without contamination, was statistically higher than that of brackets bonded to unetched enamel for all aging times. An exception was the bond strength to unetched enamel with saliva contamination after 24 hours; for EX, this value was statistically higher than that measured on unetched enamel with water contamination. Contamination by saliva did not reduce bond strength to unetched enamel. For both etched and unetched enamel, there was no significant difference between LC and EX after 24 hours for all contamination conditions.

**KEY WORDS:** Light-cured glass ionomer cements, Shear bond strength, Contamination.

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