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## In vitro study of fracture strength and marginal adaptation of fibre-reinforced-composite versus all ceramic fixed partial dentures.

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In this in vitro study fracture strength and marginal adaptation of adhesive-fixed three-unit posterior fixed partial dentures made with two different fabrication modifications--with and without the retainer material "Single"--of the new fibreglass system Vectris/Targis and from the metal-free Al<sub>2</sub>O<sub>3</sub>-ceramic In-Ceram were examined. The quality of the marginal adaptation was characterised using SEM evaluation and dye penetration techniques. In-Ceram and Vectris/Targis with "Single" showed good marginal adaptation, both statistically significantly better than the modification without "Single". After thermal cycling and mechanical loading the fibreglass reinforced systems showed a significantly higher fracture strength than the In-Ceram.