

Bulk Fill composite resins: an alternative material for direct restorations of posterior teeth.

Resinas Compuestas Bulk Fill: Un material alternativo para restauraciones directas en dientes posteriores.

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Composite resins are definitely the material of choice for direct restorative treatment in the daily clinical practice, due to their functionality and longevity.

Within the parameters we have to measure the success of restorations made with composite resins, there is the marginal integrity between the material and the tooth and the optimal degree of conversion achieved by the material for adequate biomechanical performance in the oral cavity.¹

In response to the need for an adequate polymerization of the material and for the simplification of clinical steps, a new type of resin composite was launched to the market – bulk fill resin composite.

This new composite resin is characterized by variations in its organic phase, with low polymerization shrinkage monomers within its composition that make the placement of the material in large increments of 4mm to 5mm possible, as well as reducing the polymerization time, in addition to presenting a lower stress of polymerization in the tooth/restoration interface, which ensures the aforementioned requirements of marginal integrity and optimal degree of conversion.^{2,3}

The conventional approach with composite resins use in the posterior teeth involves performing a stratified or incremental technique, inserting and polymerizing the composite resin in thickness of 2mm in order to guarantee an adequate polymerization of the material (curing depth), a lower shrinkage of the material at polymerization and a lower polymerization stress between the material and the tooth.

On the other hand, the bulk fill resin composites show polymerization similar to the conventional resin composites inserted with the incremental technique and have the advantage of requiring less working time by the professional. In addition, they have a good biomechanical performance and they are easy to handle.^{4,5}

Finally, we conclude to the use of bulk fill composite resins represent an important restorative alternative for direct restorations in posterior teeth due to technical simplicity and good mechanical properties, which ensure the longevity and clinical success of these restorations.⁶

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