

Ask Dr. Huff....



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Is there anything wrong with tooth-colored fillings?

The popularity of the "Hollywood smile," as well as the large controversy over the safety of dental amalgam has forced the development of esthetic, tooth-colored filling materials. As early as 1960, resin restorations were being

used that closely matched natural tooth color. Through the years, dental composites have been developed that incorporate different types of plastics and porcelain particles into paste form that very cosmetically match natural teeth. Well-placed composite restorations are barely detectable, even to the skilled eye of a dentist.

Aside from the esthetic value of resin-based, bonded composite fillings, less tooth structure needs to be removed than for conventional metal and gold restorations. "Bonding" is also used to close gaps between front teeth, to repair older fillings, and to serve as a base under larger metallic restorations. It is very versatile and has the potential to provide a good seal with the tooth. These fillings also allow the patient to chew on the restored tooth immediately after placement. Many of these resins offer the benefit of releasing fluoride into tooth structure as they age.

Although many advances in the development of resin-based composite restorations have been made in recent days, there are still some problems with them especially in their use on back teeth. The biggest problem with them is that they require a completely dry field for proper bonding to occur. Secondly, they are extremely technique-sensitive and can sometimes cause sensitivity to hot and cold. Thirdly, the wear characteristics in load-bearing areas like the chewing surfaces of molars are not as good as other materials. Therefore, their life-expectancy is not nearly as long as would be for amalgam, for instance. However, when the cavity is small, resins have life expectancies that approach those of amalgam.

Just like dental amalgam, there are no known health risks associated with resin-based composites. On rare occasions, local allergic reactions have been reported. Hypersensitivity

of the restored teeth is the most common problem, which can usually be remedied by replacing the restoration with metal or porcelain. There is some controversy over whether estrogen levels are increased systemically by BisGMA, bisphenol glycidyl demethacrylate, the active ingredient in these materials. Currently, there is no evidence to support this argument. As with dental amalgam, if used appropriately, bonded composite restorations are a very safe and useful dental filling material.

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