

Talking with Patients

All-Ceramic Crown

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WHAT IS IT?

In traditional esthetic crowns or caps, a tooth-colored ceramic material is applied over a metal core, resulting in what is called a porcelain-fused-to-metal (PFM) crown. PFM crowns can be pleasing visually but sometimes lack the esthetic properties of natural teeth because of the presence of the metal core. Newer types of crowns have been developed made entirely from ceramic materials; these esthetic crowns are called all-ceramic crowns because they do not have a metal component.

WHEN IS IT NEEDED?

An all-ceramic crown can be used in most patients when a crown is needed to restore a front tooth. Because all-ceramic crowns lack the strength of PFM crowns and bridges, they may not always be used for restoring back teeth and are not yet used routinely for bridges.

ADVANTAGES

Can be more esthetic than PFM crowns
Can be used in patients with metal allergies and/or sensitivities

DISADVANTAGES

High cost
Weaker than PFM crowns
May require more tooth reduction than PFM crowns

All-ceramic crowns have the potential to exhibit a more realistic appearance compared with PFM crowns. As the gum recedes over time, the metal margins of some PFM crowns become visible and can look grayish.

In addition, some patients are sensitive or allergic to metals, which can result in gum inflammation when a PFM crown is placed. All-ceramic crowns are virtually inert and are more compatible with the gum tissues than are PFM crowns.

CONCLUSIONS

All-ceramic crowns are esthetic caps that are used mainly to restore

front teeth. They can be very esthetic when properly fabricated because they do not have a metal core. New all-ceramic systems are available that also have the potential to be used for bridges in front teeth where the bite is not too strong. However, the most predictable indication for an all-ceramic crown is the restoration of individual front teeth.

The following photographs illustrate a case in which a front tooth was restored using a single all-ceramic crown.

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Before



After

Photographs courtesy of Dr. Gerard Chiche, Louisiana State University, Baton Rouge, LA, USA.

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