

## USEFUL CAST GOLD FILLINGS

### Advantages of cast gold fillings:

1. Durability -- lasts at least 10 to 15 years and usually longer; doesn't corrode
2. Strength -- can withstand chewing forces
3. Aesthetics -- some patients find gold more pleasing to the eye than silver, amalgam fillings.

### Disadvantages of cast gold fillings:

1. Expense -- gold cast fillings cost more than other materials; up to 10 times higher than cost of silver amalgam fillings.
2. Additional office visits -- requires at least two office visits to place
3. Galvanic shock -- a gold filling placed immediately next to a silver, amalgam filling may cause a sharp pain (galvanic shock) to occur. The interaction between the metals and saliva causes an electric current to occur. It's a rare occurrence, however.
4. Aesthetics -- most patients dislike metal "colored" fillings and prefer fillings that match the rest of the tooth.

## AVOID SILVER MERCURY FILLINGS

### Advantages of silver fillings:

1. Durability -- silver fillings last at least 10 to 15 years and usually outlasts composite (tooth-colored) fillings.
2. Strength -- can withstand chewing forces
3. Expense -- is less expensive than composite fillings

### Disadvantages of silver fillings:

1. Poor aesthetics -- silver fillings don't match the color of natural teeth.
2. Destruction of more tooth structure -- healthy parts of the tooth must often be removed to make a space large enough to hold the amalgam filling.

3. Discoloration -- amalgam fillings can create a grayish hue to the surrounding tooth structure.
4. Cracks and fractures -- although all teeth expand and contract in the presence of hot and cold liquids, which ultimately can cause the tooth to crack or fracture, amalgam material -- in comparison with other filling materials -- may experience a wider degree of expansion and contraction and lead to a higher incidence of cracks and fractures.
5. Allergic reactions -- a small percentage of people, approximately 1%, are allergic to the mercury present in amalgam restorations.

## **AVOID TEETH COLORED COMPOSITES**

### **Advantages of composites:**

1. Aesthetics -- the shade/color of the composite fillings can be closely matched to the color of existing teeth. Composites are particularly well suited for use in front teeth or visible parts of teeth.
2. Bonding to tooth structure -- composite fillings actually chemically bond to tooth structure, providing further support.
3. Versatility -- in addition to use as a filling material for decay, composite fillings can also be used to repair chipped, broken, or worn teeth.
4. Tooth-sparing preparation -- sometimes less tooth structure needs to be removed compared with amalgam fillings when removing decay and preparing for the filling.

### **Disadvantages of composites:**

1. Lack of durability -- composite fillings wear out sooner than amalgam fillings (lasting at least five years compared with at least 10 to 15 for amalgams); in addition, they may not last as long as amalgam fillings under the pressure of chewing and particularly if used for large cavities.
2. Increased chair time -- because of the process to apply the composite material, these fillings can take up to 20 minutes longer than amalgam fillings to place.
3. Additional visits -- if composites are used for inlays or onlays, more than one office visit may be required.
4. Chipping -- depending on location, composite materials can chip off the

tooth.

5. Expense -- composite fillings can cost up to twice the cost of amalgam fillings.

In addition to tooth-colored, composite resin fillings, two other tooth-colored fillings exist -- ceramics and glass ionomer.

### **USEFUL CERAMICS**

1. **Ceramics.** These fillings are made most often of porcelain, are more resistant to staining than composite resin material but are also more abrasive. This material generally lasts more than 15 years and can cost as much as gold.

### **GLASS IONOMER**

1. **Glass ionomer** is made of acrylic and a specific type of glass material. This material is most commonly used for fillings below the gum line and for fillings in young children (drilling is still required). Glass ionomers release **fluoride**, which can help protect the tooth from further decay. However, this material is weaker than composite resin and is more susceptible to wear and prone to fracture. Glass ionomer generally lasts five years or less with costs comparable to composite resin.