

## MATERIALS USED FOR TOOTH RESTORATIONS

This information is provided to help you make decisions about the use of materials as tooth restorations in your mouth. Many types of metals are used in dentistry for the replacement and rehabilitation of oral structures. Most of these metals are considered to be inert when placed in the body, while others have been criticized as potential toxins or allergens to some people. Plastics and ceramics are used commonly as tooth restoratives, and these have not been shown to have adverse biologic responses.

The following information will help you to make decisions about the type of tooth restorations you prefer to be placed in your mouth.

### 1. **FILLINGS (Restorations of missing parts of single teeth)**

Silver amalgam has been used for about 160 years for the restoration of teeth. This alloy contains silver, tin, copper, zinc, and about 50 percent mercury. It has been a highly successful but unsightly material. Use of mercury in the body has been criticized since its inception, but amalgam use is still supported strongly by the American Dental Association and other groups worldwide. A few people in the overall population may be allergic to the elements in silver amalgam. We do not place silver amalgam in this office because most patients prefer tooth colored fillings and there are several other restorative options.

#### **YOUR CHOICES FOR FILLINGS (Restorations of missing parts of single teeth):**

- a. **Gold inlays and onlays.** Average longevity 20 years to life, gold colored and moderate to high initial cost. May be used in any size restoration in any location where metal is not displayed to an objectionable level.
- b. **Resin (plastic)- direct (one day placement).** Average longevity 10-15 years, tooth colored, moderate cost. Best used in small-to medium-sized restorations for any teeth. Considered at this time to be competitive with silver amalgam.
- c. **Ceramic – indirect (two appointment placement).** Average longevity 10-15 years, tooth colored, moderate to high initial cost. Best in moderate-sized restorations for any teeth.

### 2. **CROWNS OR FIXED PROSTHESES (Bridges)**

Gold alloys have been used for many years for the construction of crowns or fixed prostheses (bridges). They provide excellent, strong, long lasting service. Three major types of alloys are now available:

- a. **High-noble metal**. Mostly gold but also palladium, silver, and occasionally platinum, zinc, and copper.
- b. **Noble metal**. Mostly palladium, but also silver, gold, and other trace metals.
- c. **Base metal**. Mostly nickel, but also chrome or cobalt and other base materials.

All the above alloys are used either as the sole constituent of a crown or as a thimble on which porcelain is fired (baked). Most people have no biologic response to any of the categories of metals, but some people have adverse tissue responses to the base metals. If you know of any allergies you have to metals, Please tell us at this time.

We always use noble or high-noble metals because they are the best materials available. Fixed prostheses (bridges) are strongest when metal is used with or without porcelain on it, but in certain limited situations, all-ceramic fixed prostheses (bridges) may be used.

**YOUR CHOICES FOR CROWNS (Caps) OR FIXED PROSTHESES- (Bridges):**

- a. **Metal alone**. Average longevity 20 years to life, gold or "silver" color, moderate to high initial cost. May be used in any area where metal display is not objectionable.
- b. **Porcelain fused to metal**. Average longevity 10-20 years, tooth colored, moderate to high initial cost. May be used in any area where extreme biting stress or grinding habits are not present.
- c. **Ceramic- non-metal**. These crowns (caps) are constructed from ceramic alone. Average longevity is 10-plus years, moderate to high initial cost. May be used in any area where extreme stress or grinding habits are not present. All ceramic fixed prostheses (bridges) may be used in only a few clinical situations.

We will inform you about the best type of restoration for your teeth, and we will discuss your questions.

Thanks for helping us to make this important decision.