

## Plastic (Composite) Resins vs. Cerec Inlays & Onlays

Today, the filling materials used are determined by the size of the cavity, removal of fractures, decay, and old existing restorations. The various options available for restoring your teeth are as follows:

- 1. White Plastic (composite) fillings** - these are generally done when you lose less than 40% of your tooth structure. Research shows that if you lose 40% of your tooth you lose 90% of its strength.
- 2. White Ceramic inlays/onlays (porcelain)** - these restorations are used when you lose about 40% to 60% of your tooth structure. They are much stronger than the plastic restorations and are made with precision, designed and fabricated by a computer.
- 3. Crowns** - these are generally done when you have lost more than 60% of your tooth structure. This is there is not much tooth structure to hold a filling or an inlay and therefore you need to cover the whole tooth to protect it from breaking or fracturing. These can be gold, porcelain or a combination of golf lining covered with porcelain.

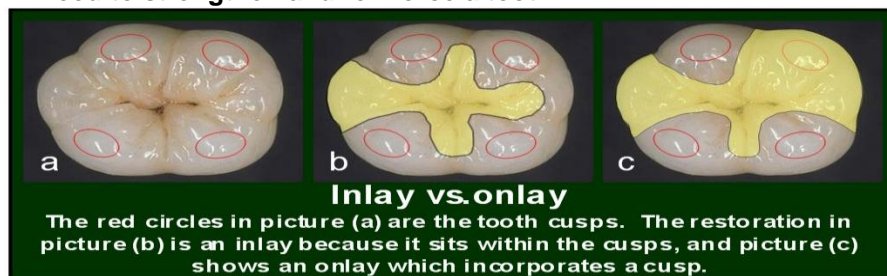
### White Plastic (composite/resin) filling:

A plastic resin is a tooth-colored filling. Composites are not only used to restore decayed areas, but are also used for cosmetic improvements of the smile by changing the color of the teeth or reshaping disfigured teeth. Once we are sure the white filling looks great, it is then hardened using a dental curing light. These last 7-10 years on average but will have a shorter lifespan if the patient clenches or grinds their teeth.

### White Porcelain Inlays and Onlays

Inlays and onlays are an excellent way to help solve a problem caused by moderate decay or

- 1. Need for a long-term, durable restoration**
- 2. Desire to limit the amount of healthy tooth structure removed**
- 3. Need to strengthen and reinforce a tooth**



## The difference between inlays and onlays:

When the ceramic filling material is bonded within the center of the tooth, it is called an inlay. If the damage is more widespread and the new structure covers the whole chewing surface including one or more tooth cusps, the procedure is called an onlay.

## The benefits of using inlays and onlays:

1. The amount of tooth material removed is less, so inlays and onlays tend to be more conservative and esthetic. The inlay and onlay procedures strengthen a tooth's structure as compared to fillings where the structure may be weakened due to removing too much tooth material.
2. Inlays and onlays are also likely to last longer than a regular filling, because the inlay or onlay material is custom made and bonded or fused to the tooth. The porcelain is stronger than plastic.
3. Inlays or onlays will not discolor as resin fillings usually do.
4. Inlays and onlays are custom made and they fit better and do not shrink or change size during the curing process, this makes it a lot easier for you to clean or brush your teeth.

## Single visit crowns, inlays and onlays...

**CEREC** is an acronym, which stands for (Chairside Economical Restoration of Esthetic Ceramics). It is a system that consists of a chairside computer and a milling unit. This revolutionary piece of technology enables our dentists to make porcelain crowns, inlays and onlays quickly and bond them into a tooth in a single appointment. We take a photograph (digital impression) of the prepared tooth using an infrared camera. This digital impression is sent to a computer where it appears as a three dimensional model. We design the crowns on this digital model, and send the information to the milling unit when we are satisfied with what we have created. The milling unit takes ten to twenty minutes to make the restoration, which is then bonded into the tooth, all on the same day.

Aside from convenience, there are several advantages to having these procedures done in a single visit. Single visit restorations eliminate the need for additional appointments and injections, and your tooth doesn't need to have a temporary restoration for two weeks. Temporary restorations can fall out and leak, which can lead to subsequent complications. Dental procedures are traumatic to teeth, and eliminating a second appointment reduces the amount of stress put on a tooth

## How long does it take?

A single tooth **CEREC** usually takes about 90-120 minutes. A good portion of that time is spent designing and milling the restoration. If multiple restorations are being made, then more time is required. We first numb the tooth and prepare the tooth accordingly. After the restoration comes out of the mill, it is adjusted, bonded into the tooth, and polished. A **CEREC** inlay, onlay or crown is a very durable and long lasting restoration, which will provide you with many years of trouble free service.

