Onlays (3/4 Crown) Vs One Visit Fillings
(for the back molar teeth used to crush & chew)

Factors To Consider

☺ The size of the area on the tooth being replaced. If you have lost more tooth to decay or tooth fracture, there will be less support for a restorative material.

☺ The type of tooth or area of the mouth where the filling is being placed. i.e. Crushing chewing molars receive a lot of force and virtually always better served with Onlays.

☺ Some patients place stronger forces via Para functional habits. These habits wear the teeth and dental restorations at an accelerated rate (i.e. Bruxism/tooth grinding and excessive gum chewing etc.)

☺ Genetics. Each patient has different saliva, tooth structure and musculature - chewing strength.

☺ Do you want a tooth like restoration or a metal type restoration? Would you except a metal restoration if it was stronger and in a less visible area of your mouth?

☺ Another factor to consider is how close to the nerve is the existing filling or decay. If the filling is dangerously close to the nerve, long term, it would be in the best interest of the patient to have a restoration placed that is less likely to need replacement in years to come. This is important because any dental work (i.e. drilling) near the nerve is cumulatively traumatic to the nerve. This is true even if the drill does not physically hit the nerve. Logically, a stronger longer lasting restoration could be viewed as a preventative investment to avoid potential tooth nerve trauma (i.e. need for Root Canal) because it will not need to be replaced as often verses the weaker type single visit dental restorations. In addition, a stronger, longer lasting restoration will reduce the potential for tooth loss due to fracture.

☺ Cost. In general: “Onlays cost 6 times as much and are estimated to last 4 times as long.”

☺ Number of visits: Onlay restorations are hand made. During the first visit, your dentist will prepare your tooth and impress a mold of your tooth. This mold will be sent to a lab for fabrication. Usually this process will take about two weeks. A second visit is required for the delivery or seating of the final restoration.

One Visit Dental Fillings (White Plastic Vs. Silver Metal)

General notes about single visit fillings. These are wonderful if there is enough surrounding tooth structure to support the dental filling. In short, they function best when they are placed into a tooth hole or cavity with strong tooth structure on all sides. Fillings are generally not strong enough to cover a thin, weakened or cracked tooth. Additionally, fillings are not strong enough to replace an outer wall of missing tooth structure on the cheek or tongue side. An outer wall of tooth structure between teeth can be replaced with “one visit fillings” because the adjacent tooth will help to support the filling.

Onlay Restorations, 3/4 Crowns & Crowns

Often patients will ask what is an onlay and how does an onlay differ from a crown. Both a crown and an onlay are indicated when there is extensive tooth loss or to hold together cracked or thin tooth structure. This is achieved by covering; replacing the chewing surface with a dental onlay or crown. This coverage will hold together fragmented parts of your tooth. Long term crowns and onlays will protect the tooth from fracture. The technical difference lies in the shape of each restoration but the term crown is often used to describe an onlay that replaces more than 65% of the tooth.

Crown

A crown will typically cover both the chewing surface and circumferentially wrap around the entire tooth. Crowns are used generally used when there is more extensive tooth loss or after root canal
therapy. Since crowns completely cover the tooth on all sides, they are used to correct any problems that you might have with alignment.

**Onlays & ¾ Crowns**
After your tooth is prepared and decay has been removed, an onlay will fit into the area where the tooth is missing and cover the top of the tooth but not wrap around the entire tooth.

**Comparison Of Materials**

### White Plastic Fillings

<table>
<thead>
<tr>
<th>Color</th>
<th>Durability</th>
<th>After Visit Sensitivity</th>
<th>Cost</th>
<th>Patient sensitivity to material</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes! These look very natural.</td>
<td>Recently the ADA updated the average life of a white plastic fillings: 2.5 – 5 years.</td>
<td>Yes, but at our office we use desensitizers under the filling which greatly reduce long term sensitivity.</td>
<td>More expensive vs. Silver Fillings</td>
<td>Non-known</td>
</tr>
</tbody>
</table>

Short note from Dr L:
Long story short, these fillings are plastic. Composite resin is a tooth-colored plastic mixture filled with glass (silicon dioxide). The glass is added to create a slightly higher rate of wear than your traditional silver fillings. Often when I share the fact that these fillings are plastic and the ADA suggests that they last for 2.5 – 5 years, patients ask me: why do dentist use these fillings?” The answer is simple, cost. The only tooth colored alternative is “Pressed Ceramic” which very worth while, but more expensive. These single visit white fillings should only be used in patients who do not have a cavity prone dental history, and only in teeth with small cavities. Our dental office uses only the finest materials and the latest and best placement techniques for composite or white single visit fillings.

### Silver (Metal) Fillings

<table>
<thead>
<tr>
<th>Color</th>
<th>Durability</th>
<th>After Visit Sensitivity</th>
<th>Cost</th>
<th>Patient sensitivity to material</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silver metallic in color</td>
<td>Average 10- 15 years. (This material has been used for dental fillings150 years)</td>
<td>Very uncommon and usually due to a high bite.</td>
<td>Low</td>
<td></td>
</tr>
</tbody>
</table>

Short note from Dr L:
Silver single visit fillings have certainly withstood the test of time. I usually recommend this material when the filling is small to medium in size. Typically, I will recommend this type of filling in non-cosmetic areas to restore cavities on the chewing surface of the upper teeth. I will also recommend silver fillings when patients have financial concerns when discussing treatment options for lower back teeth.
The strength of single visit metal fillings is slightly stronger than coffee mug material (brittle). It’s not recommended for large fillings or to replace the side walls of tooth because it may crack. After 10-15 years the marginal area will chip away and need to be replaced.

**ONLAYS (PORCELAIN WHITE VS. GOLD SILVER):**

### Gold Silver

<table>
<thead>
<tr>
<th>Color</th>
<th>Durability</th>
<th>After Visit Sensitivity</th>
<th>Cost</th>
<th>Patient sensitivity to material</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silver metallic in</td>
<td>Average 15-40 years. (This material has used for</td>
<td>Very uncommon and usually due to a high bite.</td>
<td>Typically 6 times as much as a</td>
<td>Non-known</td>
</tr>
<tr>
<td>color</td>
<td>dental fillings over 150 years)</td>
<td></td>
<td>single visit filling.</td>
<td></td>
</tr>
</tbody>
</table>

Note from Dr L: This is the best dental restorative material available in dentistry, but its application is limited due to esthetic nature of gold when viewed in a patient’s smile. Gold is very strong when it’s thin and subsequently can be used to cover weakened tooth structure without the need to remove much tooth structure. With all other dental materials, the dentist will need to reduce the tooth in order to create a certain thickness for the material to withstand the chewing forces without breaking.

### Porcelain White

<table>
<thead>
<tr>
<th>Color</th>
<th>Durability</th>
<th>After Visit Sensitivity</th>
<th>Cost</th>
<th>Patient sensitivity to material</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tooth Color</td>
<td>Average 15 years. (I would guess that the pressed ceramic used at our office will last a little longer)</td>
<td>Very uncommon and usually due to a high bite.</td>
<td>Typically 6 times as much as a single visit filling</td>
<td>This is the least toxic of any filling we use. We will use Zirconium for any patients who are environmentally sensitive.</td>
</tr>
</tbody>
</table>

Note from Dr L: This is the material that I have chosen to restore my own teeth. It’s the best of both worlds because it is the strongest and most cosmetic dental restorative material available. One example of dental restorative material we use is a long lasting tooth colored material known as “Empress”. It is used to replace missing tooth structure and is the material of choice to form Crowns, Veneers & Dental Onlays. Non-metal Empress Tooth colored material is of the hardest pressed ceramic material available with the best tooth-like properties. When more strength is needed, especially with implant procedures, we use the strongest tooth colored material “Zirconium.” Zirconium type restorations are not as cosmetic or “tooth-like” as the Empress pressed ceramic, and cannot be used for all dental restorations.

**OUR PHILOSOPHY, OUR OFFICE REMAINS DEDICATED TO PROVIDING OPTIMAL CARE FOR EVERY PATIENT AND WORKING WITH YOU TO ACHIEVE THAT GOAL. WE PRIDE OURSELVES ON HELPING YOU IN ANY WAY AND IN CONTINUING TO PROVIDE THE QUALITY OF CARE TO WHICH YOU HAVE BECOME ACCUSTOMED.**

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