

Utilizing Indirect Composites for Inlays and Onlays



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As a laboratory, we fabricate a lot of “smile design” restorations, but we also see a large number of restorative cases for inlays and onlays. As an alternative to traditional gold or amalgam, esthetic posterior restorations offer the doctor an option to provide exceptional care to the patient. While gold is, and has been, a valid choice of restorative material for indirect inlays and onlays, patients are requesting non-metal tooth colored choices.

Indirect inlays and onlays are often viewed as the “meat and potatoes” of dental practices, and they should be. There are many advantages to placing laboratory-fabricated restorations: esthetics, conservative preparations that can preserve the integrity of the remaining tooth structure, and the ability to bond.

Materials

Aurum Ceramic/Classic offers several options for posterior esthetic restorations depending on the case situation and your personal preference. Composite materials are a superior metal-free inlay and onlay alternative. Several factors should be considered when deciding which material will be the superior material of choice for your patient.

Composite materials to consider include Cristobal+, BelleGlass, and Gradia to name a few. All provide an exceptionally natural appearance while providing high fracture resistance, superb marginal integrity, and the ability to be easily polished. These restorations

have an excellent fit and are layered to blend naturally into tooth structure. Composite restorations are mechanically polished for a long lasting shine (they are not glazed). Most of these materials are 70% filled with glass particles. The important point to note about these materials is their improved physical properties which help inhibit staining, something that has been a challenge with previous generations of indirect composites. Composite may also be used for inlay bridges where you may want to conserve natural abutment tooth structure. The ability to bond these bridges adds to their strength especially with anterior bridges where the abutments are bonded on the lingual. Composites wear well against natural dentition as well as porcelain. Aurum Fusion bridges are supported with substructures of zirconium or lithium disilicate, with composite material overlaying the substructure.

Dentist-Laboratory Communication with Inlays/Onlays

A few tips to remember when prescribing inlays/onlays:

- Take the shade of the adjacent tooth if the tooth to be restored has an existing metal restoration. The goal is to take a cervical, body and incisal shade so we can build the shade of the restoration from within to mimic dentin to enamel, and to recreate the desired level of translucency. Photos are extremely beneficial in shade matching.
- Indicate if you would like occlusal

staining, and if so, what shade and amount. We do have a reference chart to assist you in matching to your patient’s existing teeth.

- Shade can be selected using the traditional Vita shade guide.
- Preparation design includes butt joint margins, rounded internal line angles, 1.5 mm to 2.0 mm isthmus width for inlays, as well as 1.5 mm depth. For onlays, 2.0 mm cusp reduction is desirable. If you are prepping for an anterior or posterior inlay bridge, and are unsure of the prep design, contact us at the lab, as we can advise or even fabricate a demo prep model for you. Or you may refer to our Cosmetic Restoration Alternatives Chart for a complete description of materials available, which includes preparation guidelines.
- Bonding: Utilize the latest in adhesive dentistry. There are a lot of bonding agents available, so it is advisable to do your homework if you are unsure of which product to use. You may want to call us at the lab for suggestions, or you may want to consider taking a course that discusses the latest in adhesive dentistry.

There are many ways to provide esthetic dentistry other than restoring anterior teeth. Take advantage of utilizing laboratory services for fabrication for metal free inlays and onlays. Isn’t it a wonderful thought... Placing posterior restorations that disappear into the natural tooth structure?

