Amalgam Fillings

Used by dentists for more than a century, dental amalgam is the most thoroughly researched and tested restorative material among all those in use. It is durable, easy to use, highly resistant to wear and relatively inexpensive in comparison to other materials. For those reasons, it remains a valued treatment option for dentists and their patients.

Dental amalgam is a stable alloy made by combining elemental mercury, silver, tin, copper and possibly other metallic elements. Although dental amalgam continues to be a safe, commonly used restorative material, some concern has been raised because of its mercury content. However, the mercury in amalgam combines with other metals to render it stable and safe for use in filling teeth.

While questions have arisen about the safety of dental amalgam relating to its mercury content, the major U.S. and international scientific and health bodies, including the National Institutes of Health, the U.S. Public Health Service, the Centers for Disease Control and Prevention, the Food and Drug Administration and the World Health Organization, among others have been satisfied that dental amalgam is a safe, reliable and effective restorative material.

Because amalgam fillings can withstand very high chewing loads, they are particularly useful for restoring molars in the back of the mouth where chewing load is greatest. They are also useful in areas where a cavity preparation is difficult to keep dry during the filling replacement, such as in deep fillings below the gum line. Amalgam fillings, like other filling materials, are considered biocompatible—they are well tolerated by patients with only rare occurrences of allergic response.

Disadvantages of amalgam include possible short-term sensitivity to hot or cold after the filling is placed. The silver-colored filling is not as natural looking as one that is tooth-colored, especially when the restoration is near the front of the mouth, and shows when the patient laughs or speaks. And to prepare the tooth, the dentist may need to remove more tooth structure to accommodate an amalgam filling than for other types of fillings.

Are dental amalgams safe?

Yes. Dental amalgam has been used in tooth restorations worldwide for more than 100 years. Studies have failed to find any link between amalgam restorations and any medical disorder. Amalgam continues to be a safe restorative material for dental patients.
Composite Fillings

Composite fillings are a mixture of glass or quartz filler in a resin medium that produces a tooth-colored filling. They are sometimes referred to as composites or filled resins. Composite fillings provide good durability and resistance to fracture in small-to-mid size restorations that need to withstand moderate chewing pressure. Less tooth structure is removed when the dentist prepares the tooth, and this may result in a smaller filling than that of an amalgam. Composites can also be "bonded" or adhesively held in a cavity, often allowing the dentist to make a more conservative repair to the tooth.

The cost is moderate and depends on the size of the filling and the technique used by the dentist to place it in the prepared tooth. It generally takes longer to place a composite filling than what is required for an amalgam filling. Composite fillings require a cavity that can be kept clean and dry during filling and they are subject to stain and discoloration over time.

Crowns

Overview

If you want a smile that's your crowning glory, you may need a crown to cover a tooth and restore it to its normal shape and size. A crown can make your tooth stronger and improve its appearance.

It can cover and support a tooth with a large filling when there isn't enough tooth left. It can be used to attach a bridge, protect a weak tooth from breaking or restore one that's already broken. A crown is a good way to cover teeth that are discolored or badly shaped. It's also used to cover a dental implant.

If your dentist recommends a crown, it's probably to correct one of these conditions. Your dentist's primary concern, like yours, is helping you keep your teeth healthy and your smile bright -- literally, your crowning glory.
All-Porcelain (Ceramic) Dental Materials

All-porcelain (ceramic) dental materials include porcelain, ceramic or glasslike fillings and crowns. They are used as inlays, onlays, crowns and aesthetic veneers. A veneer is a very thin shell of porcelain that can replace or cover part of the enamel of the tooth. All-porcelain (ceramic) restorations are particularly desirable because their color and translucency mimic natural tooth enamel.

All-porcelain restorations require a minimum of two visits and possibly more. The restorations are prone to fracture when placed under tension or on impact. The strength of this type of restoration depends on an adequate thickness of porcelain and the ability to be bonded to the underlying tooth. They are highly resistant to wear but the porcelain can quickly wear opposing teeth if the porcelain surface becomes rough.

Porcelain-fused-to-Metal

Another type of restoration is porcelain-fused-to-metal, which provides strength to a crown or bridge. These restorations are very strong and durable.

The combination of porcelain bonded to a supporting structure of metal creates a stronger restoration than porcelain used alone. More of the existing tooth must be removed to accommodate the restoration. Although they are highly resistant to wear, porcelain restorations can wear opposing natural teeth if the porcelain becomes rough. There may be some initial discomfort to hot and cold. While porcelain-fused-to-metal restorations are highly
biocompatible, some patients may show an allergic sensitivity to some types of metals used in the restoration.

**Gold Alloys**

Gold alloys contain gold, copper and other metals that result in a strong, effective filling, crown or a bridge. They are primarily used for inlays, onlays, crowns and fixed bridges. They are highly resistant to corrosion and tarnishing.

Gold alloys exhibit high strength and toughness that resists fracture and wear. This allows the dentist to remove the least amount of healthy tooth structure when preparing the tooth for the restoration. Gold alloys are also gentle to opposing teeth and are well tolerated by patients. However, their metal colors do not look like natural teeth.

**Veneers**

There's no reason to put up with gaps in your teeth or with teeth that are stained, badly shaped or crooked. Today a veneer placed on top of your teeth can correct nature's mistake or the results of an injury and help you have a beautiful smile.

Veneers are thin, custom-made shells crafted of tooth-colored materials designed to cover the front side of teeth. They're made by a dental technician, usually in a dental lab, working from a model provided by your dentist.

You should know that this is usually an irreversible process, because it's necessary to remove a small amount of enamel from your teeth to accommodate the shell.

Your dentist may recommend that you avoid some foods and beverages that may stain or discolor your veneers such as coffee, tea or red wine. Sometimes a veneer might chip or fracture. But for many people the results are more than worth it.
Bleaching (Tooth Whitening)

Everybody loves a bright white smile, and there are a variety of products and procedures available to help you improve the look of yours.

Many people are satisfied with the sparkle they get from brushing twice daily with a fluoride-containing toothpaste, cleaning between their teeth once a day and the regular cleanings at your dentist’s office. If you decide you would like to go beyond this to make your smile look brighter, you should investigate all of your options.

You can take several approaches to whiten your smile:

- In-office bleaching;
- At-home bleaching;
- Whitening toothpastes

What is in-office bleaching?

If you are a candidate for bleaching, your dentist may suggest a procedure that can be done in his or her office. This procedure is called chairside bleaching and may require more than one office visit. Each visit may take from 30 minutes to one hour.

During chairside bleaching, the dentist will apply either a protective gel to your gums or a rubber shield to protect the oral soft tissues. A bleaching agent is then applied to the teeth, and a special light may be used to enhance the action of the agent. Lasers have been used during tooth whitening procedures to enhance the action of the whitening agent.

What are at-home procedures and products?

There are several types of products available for use at home, which can either be dispensed by your dentist or purchased over-the-counter.

Bleaching solutions. These products contain peroxide(s), which actually bleach the tooth enamel. These products typically rely on percent carbamide peroxide as the bleaching agent, carbamide peroxide comes in several different concentrations (10%, 16%, 22%).

Peroxide-containing whiteners typically come in a gel and are placed in a mouthguard. Usage regimens vary. Some products are used for about twice a day for 2 weeks, and others are intended for overnight use for 1-2 weeks. If you obtain the bleaching solution from your dentist, he or she can make a custom-fitted mouthguard for you that will fit your teeth precisely.
Currently, only dentist-dispensed home-use 10% carbamide peroxide tray-applied gels carry the ADA Seal.

You also may want to speak with your dentist should any side effects become bothersome. For example, teeth can become sensitive during the period when you are using the bleaching solution. In many cases, this sensitivity is temporary and should lessen once the treatment is finished. Some people also experience soft tissue irritation—either from a tray that doesn’t fit properly or from solution that may come in contact with the tissues. If you have concerns about such side effects, you should discuss them with your dentist.

**Toothpastes.** All toothpastes help remove surface stain through the action of mild abrasives. "Whitening" toothpastes in the ADA Seal of Acceptance program have special chemical or polishing agents that provide additional stain removal effectiveness. Unlike bleaches, these ADA Accepted products do not alter the intrinsic color of teeth.

**Bridges**

If you’re missing one or more teeth, you may notice a difference in chewing and speaking. There are options to help restore your smile.

Bridges help maintain the shape of your face, as well as alleviating the stress in your bite by replacing missing teeth.

Sometimes called a fixed partial denture, a bridge replaces missing teeth with artificial teeth, looks great, and literally bridges the gap where one or more teeth may have been. The restoration can be made from gold, alloys, porcelain or a combination of these materials and is bonded onto surrounding teeth for support.

Unlike a removable bridge, which you can take out and clean, a fixed bridge can only be removed by a dentist.

An implant bridge attaches artificial teeth directly to the jaw or under the gum tissue. Depending on which type of bridge your dentist recommends, its success depends on its foundation. So it's very important to keep your remaining teeth healthy and strong.
Dental Sealants

Overview

Dental sealants act as a barrier, protecting the teeth against decay-causing bacteria. The sealants are usually applied to the chewing surfaces of the back teeth (premolars and molars) where decay occurs most often.

*How does a sealant help prevent decay?*

A sealant is a plastic material that is usually applied to the chewing surfaces of the back teeth—premolars and molars. This plastic resin bonds into the depressions and grooves (pits and fissures) of the chewing surfaces of back teeth. The sealant acts as a barrier, protecting enamel from plaque and acids.

Thorough brushing and flossing help remove food particles and plaque from smooth surfaces of teeth. But toothbrush bristles cannot reach all the way into the depressions and grooves to extract food and plaque. Sealants protect these vulnerable areas by "sealing out" plaque and food.

*Is sealant application a complicated procedure?*

Sealants are easy for your dentist to apply, and it takes only a few minutes to seal each tooth. The teeth that will be sealed are cleaned. Then the chewing surfaces are roughened with an acid solution to help the sealant adhere to the tooth. The sealant is then 'painted' onto the tooth enamel, where it bonds directly to the tooth and hardens. Sometimes a special curing light is used to help the sealant harden.

As long as the sealant remains intact, the tooth surface will be protected from decay. Sealants hold up well under the force of normal chewing and usually last several years before a reapplication is needed. During your regular dental visits, your dentist will check the condition of the sealants and reapply them when necessary.

*Sealants are just for kids, right?*

The likelihood of developing pit and fissure decay begins early in life, so children and teenagers are obvious candidates. But adults can benefit from sealants as well.

Key ingredients in preventing tooth decay and maintaining a healthy mouth are twice-daily brushing with an ADA-accepted fluoride toothpaste; cleaning between the teeth daily with floss or interdental cleaners; eating a balanced diet and limiting snacks; and visiting your dentist regularly. Ask your dentist about whether sealants can put extra power behind your prevention program.
Dentures

If you've lost all of your natural teeth, whether from periodontal disease, tooth decay or injury, complete dentures can replace your missing teeth and your smile. Replacing missing teeth will benefit your appearance and your health. Without support from the denture, facial muscles sag, making a person look older. You’ll be able to eat and speak—things that people often take for granted until their natural teeth are lost.

There are various types of complete dentures. A conventional full denture is made and placed in the patient’s mouth after the remaining teeth are removed and tissues have healed which may take several months. An immediate complete denture is inserted as soon as the remaining teeth are removed. The dentist takes measurements and makes models of the patient’s jaws during a preliminary visit. With immediate dentures, the denture wearer does not have to be without teeth during the healing period.

Even if you wear full dentures, you still must take good care of your mouth. Brush your gums, tongue and palate every morning with a soft-bristled brush before you insert your dentures to stimulate circulation in your tissues and help remove plaque.

What's the difference between conventional dentures and immediate dentures?

Complete dentures are called "conventional" or "immediate" according to when they are made and when they are inserted into the mouth.

Immediate dentures are inserted immediately after the removal of the remaining teeth. To make this possible, the dentist takes measurements and makes the models of the patient's jaws during a preliminary visit.

An advantage of immediate dentures is that the wearer does not have to be without teeth during the healing period. However, bones and gums can shrink over time, especially during the period of healing in the first six months after the removal of teeth. When gums shrink, immediate dentures may require rebasing or relining to fit properly. A conventional denture can then be made once the tissues have healed. Healing may take at least 6-8 weeks.

What is an overdenture?

A removable denture that fits over a small number of remaining natural teeth or implants. The natural teeth must be prepared to provide stability and support for the denture. Your dentist can determine if an overdenture would be suitable for you.
Partial Dentures, Removable

Removable partial dentures usually consist of replacement teeth attached to pink or gum-colored plastic bases, which are connected by metal framework.

*How do you wear a removable partial denture?*

Removable partial dentures usually consist of replacement teeth attached to pink or gum-colored plastic bases, which are connected by metal framework. Removable partial dentures attach to your natural teeth with metal clasps or devices called precision attachments. Precision attachments are generally more esthetic than metal clasps and they are nearly invisible. Crowns on your natural teeth may improve the fit of a removable partial denture and they are usually required with attachments. Dentures with precision attachments generally cost more than those with metal clasps. Consult with your dentist to find out which type is right for you.

Implants

Crowns and conventional bridges or dentures may not be your only options when replacing missing teeth. For some people, dental implants offer a smile that looks and feels very natural. Surgically placed below the gums over a series of appointments, implants fuse to the jawbone and serve as a base for individual replacement teeth, bridges or a denture.

Implants offer stability because they fuse to your bone. Integration of the implants into your jaw also helps your replacement teeth feel more natural and some people also find the secure fit more comfortable than conventional substitutes.

Candidates for dental implants need to have healthy gums and adequate bone to support the implant. A thorough evaluation by your dentist will help determine whether you are a good candidate for dental implants.

*What is involved in placing implants?*

First, surgery is performed to place the anchor. Surgery can take up to several hours, and up to six months may be required for the bone to grow around the anchor and firmly hold it in place. Some implants require a second surgery in which a post is attached to connect the anchor to the replacement teeth. With other implants, the anchor and post are already attached and are placed at the same time.
After the gums have had several weeks to heal, the next step is begun. The artificial teeth are made and fitted to the post portion of the anchor. Because several fittings may be required, this step can take one to two months to complete.

Implant surgery can be done either in a dental office or in a hospital, depending upon a number of factors. A local or general anesthetic may be used. Usually pain medications and, when necessary, antibiotics are prescribed. Your dentist will give you instructions on diet and oral hygiene.

**Mouthguards**

Use a mouthguard during any activity that could result in a blow to the face or mouth. A properly fitted mouthguard can help prevent broken teeth and injuries to the lips, tongue, face or jaw. It will stay in place while you are wearing it, making it easy for you to talk and breath.

Ask your dentist about having a custom mouthguard made specifically for you. This will fit well and offer the best protection for your smile.

**Nitrous Oxide (Laughing Gas)**

Nitrous oxide is one option your dentist may offer to help make you comfortable during certain procedures. Inhaled through a small mask that fits over your nose, nitrous oxide is mixed with oxygen to help you relax. Your dentist will ask you to breathe normally through your nose, and within a few short minutes you should start to feel the effects of the nitrous oxide. You may feel light headed or a tingling in your arms and legs. Some people say their arms and legs feel heavy. Ultimately, you should feel calm and comfortable.

Nitrous oxide is not intended to put you to sleep. You will be able to hear and respond to any requests or directions the dentist may have. This is called “conscious sedation.”

The effects of nitrous oxide wear off soon after the treatment has ended and the mask is removed.

Talk to your dentist about whether nitrous oxide would be a good option for you
Root Canal Treatment (Endodontic Treatment)

Once upon a time, if you had a tooth with a diseased nerve, you'd probably lose that tooth. Today, with a special dental procedure called a root canal therapy you may save that tooth. Inside each tooth is the pulp which provides nutrients and nerves to the tooth, it runs like a thread down through the root. When the pulp is diseased or injured, the pulp tissue dies. If you don't remove it, your tooth gets infected and you could lose it. After the dentist removes the pulp, the root canal is cleaned and sealed off to protect it. Then your dentist places a crown over the tooth to help make it stronger.

Most of the time, a root canal is a relatively simple procedure with little or no discomfort involving one to three visits. Best of all, it can save your tooth and your smile!