

## Environment

Waste from dental fillings is made when new fillings are put in teeth or when old fillings are removed. Amalgam filling waste contains mercury, and it can be released into the environment if not disposed of properly. Your dentist reduces this potential for pollution by using Best Management Practices including traps and filters to collect the amalgam for recycling. These practices ensure that dentists and patients have the option of dental amalgam when appropriate.



Vermont dentists have a long and successful track record of environmental stewardship, including keeping mercury out of the environment.

- In 1999, the VSDS received the Vermont Governor's Award for Environmental Excellence in pollution prevention for Best Management Practices
- In 2000, the Vermont State Dental Society was awarded a "Golden Apple Award" by the American Dental Association for their efforts in developing proper waste management for dental offices
- By January 1, 2007, Vermont dentists installed dental amalgam separators in their offices to prevent its release into the environment

Mercury used in dentistry contributes less than one percent of the total mercury released to the environment.

When deciding on appropriate dental treatment, the VSDS encourages dentists and their patients to consider potential environmental impact of all restorative options.



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## More Information

More information on these and other filling options can be found at [http://ada.org/prof/resources/topics/materials/dental\\_fillings\\_facts\\_full.pdf](http://ada.org/prof/resources/topics/materials/dental_fillings_facts_full.pdf)

For more information on the safety of amalgam fillings and mercury visit:

U.S. Public Health Service Statement on Amalgam Fillings  
[www.fda.gov/cdrh/consumer/amalgams.html](http://www.fda.gov/cdrh/consumer/amalgams.html)

Vermont Department of Health – Dental Amalgam  
[www.healthvermont.gov/family/dental/amalgam.aspx](http://www.healthvermont.gov/family/dental/amalgam.aspx)

American Dental Association – Amalgam  
[www.ada.org/prof/resources/topics/amalgam.asp](http://www.ada.org/prof/resources/topics/amalgam.asp)

Fédération Dentaire Internationale Policy Statement  
Amalgam Waste Management: [www.fdiworldental.org/federation/assets/statements/ENGLISH/Amalgam/Amalgam\\_waste\\_management.pdf](http://www.fdiworldental.org/federation/assets/statements/ENGLISH/Amalgam/Amalgam_waste_management.pdf)

Academy of General Dentistry (AGD)  
[www.agd.org/public/oralhealth/Default.asp?IssID=286&Topic=F&ArtID=1242](http://www.agd.org/public/oralhealth/Default.asp?IssID=286&Topic=F&ArtID=1242)

For more information on dental materials or a copy of this information, visit [www.vsds.org](http://www.vsds.org)

# Dental Fillings

## Knowing Your Options



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# Dental Fillings



## Know Your Options

Patient health and safety are the highest concerns of Vermont's dental professionals and the Vermont State Dental Society. This brochure contains information on the two most common dental filling materials - dental amalgam and composite. This will help you discuss the advantages and disadvantages of each available dental filling material with your dentist so you can choose the best option for yourself and your family.

There are several options available for filling cavities and it is important for you and your dentist to talk about your options. More information on other filling materials (Glass Ionomer; Resin Ionomer; Porcelain (ceramic); Gold Alloys) can be found at [http://ada.org/prof/resources/topics/materials/dental\\_fillings\\_facts\\_full.pdf](http://ada.org/prof/resources/topics/materials/dental_fillings_facts_full.pdf)

Let your dentist know of any changes to your health since your last visit, particularly if you are taking any new medications or if you are pregnant. This will help your dentist recommend the best treatment options for you.

If you are pregnant, it is important to discuss the appropriateness and timing of any dental care with your dentist. For more information visit [http://ada.org/public/topics/pregnancy\\_faq.asp](http://ada.org/public/topics/pregnancy_faq.asp)

The final choice of dental material is between you and your dentist.



## Amalgam



Dental amalgam is a compound of approximately 43 – 54 percent elemental mercury combined with other metals including silver, copper and tin. They are commonly called “silver fillings” because of their silver color when they are first placed. Today, amalgam is most commonly used in back teeth. Having been used and improved for more than 150 years, it is one of the most thoroughly researched and tested filling materials.

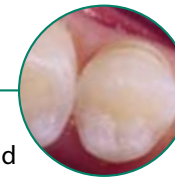
### Advantages

- Strong, durable and stands up to biting force
- Can be placed in one visit
- Normally the least expensive material
- Self-sealing with little or no shrinkage and resists leakage
- Highly resistant to further decay
- Low frequency of repair and replacement
- Amalgam can be reliably placed where moisture is present

### Disadvantages

- While concerns have been raised about very low levels of mercury in amalgam, the U.S. Centers for Disease Control have found no evidence of harm
- Amalgam can darken over time as it corrodes. This does not affect the function of the filling, but many find it less attractive than tooth-colored materials
- Placement of amalgam requires removal of some healthy tooth
- Amalgam scrap (waste left over after repairing a cavity) contains mercury and requires special handling to protect the environment. Vermont dentists use Best Management Practices to prevent the release of dental amalgam to the environment.
- Mercury from dental amalgam is released into the environment during cremation, contributing to mercury emissions in the air
- In rare cases, a localized, allergic reaction, such as inflammation or rash, may occur

## Composite (resin)



Composite is a mix of acrylic resin and powdered glass-like particles that produce a tooth-color filling. Composite is used for fillings, inlays and veneers. Sometimes it is used to replace a portion of a broken or chipped tooth.

### Advantages

- Composite is a relatively strong material, providing good durability in small to mid-sized restorations that need to withstand moderate chewing pressure
- Moderately resistant to breakage
- Frequency of repair or replacement is low to moderate
- Fillings are usually completed in a single visit
- Low risk of leakage if bonded only to enamel
- Does not corrode
- Color and shading can be closely matched to the existing tooth
- Composite may generally be used on either front or back teeth
- Often permits preservation of as much of the tooth as possible
- Moderately resistant to further decay

### Disadvantages

- Resins must be placed in a dry environment
- This type of filling can break and wear out more easily than metal fillings, especially in areas of heavy biting force. Therefore, composite fillings may need to be replaced more often than metal fillings
- May wear faster than natural dental enamel
- Compared to other fillings, composites are some times difficult and time-consuming to place. They can not be used in all situations
- Composite generally is more expensive than amalgam
- May require more than one visit for inlays and veneers
- May leak over time when bonded beneath the layer of enamel
- In rare cases, a localized, allergic reaction such as inflammation or rash may occur