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DENTAL ASSOCIATION

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Amalgam and Other Restorative Materials

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South African Dental Association
Private Bag 1
Houghton, Gauteng
South Africa
T: +27 11 484 5288
E: info@sada.co.za
www.sada.co.za

Many adults grew up with “silver” fillings when they had a cavity. Although these fillings are still an option, there are now other choices, such as tooth colored fillings and materials that release fluoride to help protect your teeth from developing new cavities.

Each of these choices has its pros and cons, but most importantly, you and your dentist have choices available when repairing a cavity.

Amalgam

Dental amalgam, or “silver” fillings, have been used for more than 150 years to repair cavities.

Dentists use dental amalgam because it is safe, strong, long lasting, and affordable.

Dental amalgam is a mixture of metals that includes mercury, silver, tin, and copper.

As it is made with mercury, some people worry about its effects on their health and the environment.

Can dental amalgam affect my health?

When the type of mercury used in dental amalgam is mixed with other metals, it forms a hard material that doesn't easily break down.

In A review of scientific studies, the US Food and Drug Administration found that dental amalgam fillings are safe for adults and children 6 years and older.

Although some people express concern about mercury vapor released from dental amalgam when they chew, the amount released is well below the limits set by the US Environmental Protection Agency and the World Health Organization.

As with any material used in the body, some people may be at risk of experiencing an allergic reaction. Less than 1% of the people who get amalgam fillings, though, might have an allergic reaction.

Usually amalgam fillings are used on the chewing surfaces of the back teeth because these fillings are very strong and can typically hold up without forming cracks when you chew. They also last longer than fillings made of other materials.

What about harm to the environment? Dental amalgam contributes less than 1% of the mercury in the waste stream.

To lower that number, dentists use a device (amalgam separators) that reduces the amount of amalgam leaving the dental office and entering the public sewage system.

Resin Composites

Resin composites are a tooth-coloured material. They can be used to repair a cavity in any tooth but are often used in front teeth because the colour can be matched to the tooth being repaired.

Although they seem to be able to handle chewing forces as well as amalgam without cracking, they do not usually last as long as silver fillings. Small cavities can sometimes develop around the edges of a resin composite filling, which then may need to be replaced.

Also, resin composites need to be placed on a clean, dry surface, free from blood or saliva. For this reason, they might not be best for people who have trouble sitting still, like small children. However, resin composites have become more popular with older children and adults, probably because they usually look like real teeth.

Glass Ionomers

Glass ionomers are another kind of tooth-coloured filling material. These release small amounts of fluoride, a cavity fighter.

Fluoride helps harden the outside of the tooth and, together with brushing and flossing, helps protect it from developing cavities.

Unlike resin composites, blood and saliva are not as much of a problem when placing a glass ionomer filling. Glass ionomers can be used on areas of teeth that you do not bite down on and the chewing surfaces of primary teeth, but because adults chew with much greater force than children and need their fillings to last much longer, glass ionomers may not be the right choice for chewing surfaces in adults.

Silver Diamine Fluoride

Some cavities may be managed with silver diamide fluoride (SDF), which can be painted directly onto the cavity.

SDF stops the cavity from getting worse, but it does not repair the working surface of the tooth like the previously mentioned fillings. The tooth will be weak until it is repaired.

However, SDF is easy to apply and inexpensive. Often, it is used to treat cavities in baby teeth or in situations in need of a quick fix. SDF is not tooth coloured. The treated area of the tooth will turn black.

You and your dentist can talk about the options that can best meet your needs. The best choice may depend on your individual situation, such as which tooth has the cavity and how long the treatment needs to last.