

Long-Term Effects of Amalgam Fillings on Oral Health

Reyhaneh Bawazir*

Department of Reconstructive Dentistry and Gerodontology, University of Bern, Bern, Switzerland

ABOUT THE STUDY

Amalgam fillings have been used for over 150 years as a common treatment for dental cavities. These fillings are a mixture of various metals, including mercury, silver, tin, and copper. While they are durable and long-lasting, there has been controversy over the safety of amalgam fillings due to concerns about the potential long-term effects on oral health. In this article, we will explore the long-term effects of amalgam fillings on oral health.

Mercury exposure

One of the main concerns with amalgam fillings is the potential for mercury exposure. Mercury is a toxic substance that can cause a range of health problems, including neurological and developmental disorders. While the amount of mercury in amalgam fillings is small, some studies have suggested that the constant exposure to mercury vapor from fillings can have long-term effects on oral health.

Studies have shown that mercury vapor can be released from amalgam fillings during chewing, brushing, and other oral activities. This vapor can be absorbed into the body through the lungs, mouth, and digestive system. While the overall risk of mercury toxicity from amalgam fillings is low, some individuals may be more sensitive to mercury exposure than others, and long-term exposure to mercury can have adverse effects on oral health.

Oral health effects

Long-term exposure to mercury vapor from amalgam fillings has been associated with a range of oral health effects, including:

Discoloration of teeth: Amalgam fillings can cause discoloration of the teeth over time. This is because the silver in the fillings can react with the sulfur compounds in the mouth, causing a darkening of the filling and adjacent tooth structure.

Tooth fractures: Amalgam fillings can increase the risk of tooth fractures, especially in molars and premolars. This is

because the filling material expands and contracts at a different rate than the tooth structure, leading to stress on the tooth and potential fractures.

Gum inflammation: Amalgam fillings can cause gum inflammation and irritation. This is because the metal in the filling can react with the oral tissues, leading to inflammation and swelling.

Tooth sensitivity: Amalgam fillings can cause tooth sensitivity, especially to hot and cold temperatures. This is because the metal in the filling can conduct heat and cold, leading to sensitivity in the surrounding tooth structure.

Oral microbiome imbalance: The constant release of mercury vapor from amalgam fillings can disrupt the balance of bacteria in the oral microbiome, leading to an increased risk of oral infections and diseases.

Alternatives to amalgam fillings: In recent years, there has been a shift towards alternative dental filling materials that do not contain mercury. Some of these materials include:

Composite resin: Composite resin fillings are made of a mixture of plastic and glass materials. They are tooth-colored and can be matched to the natural color of the surrounding teeth. They are also less likely to cause tooth fractures than amalgam fillings.

Ceramic: Ceramic fillings are made of porcelain or other ceramic materials. They are tooth-colored and can be matched to the natural color of the surrounding teeth. They are also durable and long-lasting.

Gold: Gold fillings are made of a mixture of gold and other metals. They are durable and long-lasting, but they are more expensive than other filling materials.

Glass ionomer: Glass ionomer fillings are made of a mixture of glass and acrylic materials. They are tooth-colored and can be matched to the natural color of the surrounding teeth. They are also less likely to cause tooth fractures than amalgam fillings.

Correspondence to: Reyhaneh Bawazir, Department of Reconstructive Dentistry and Gerodontology, University of Bern, Bern, Switzerland, E-mail: b.reyhaneh@gmail.com

Received: 01-Mar-2023, Manuscript No. DCR-23-20901; **Editor assigned:** 06-Mar-2023, Pre QC No. DCR-23-20901 (PQ); **Reviewed:** 20-Mar-2023, QC No. DCR-23-20901; **Revised:** 27-Mar-2023, Manuscript No. DCR-23-20901 (R); **Published:** 04-Apr-2023, DOI: 10.35248/2161-1122.23.13.633

Citation: Bawazir R (2023) Long-Term Effects of Amalgam Fillings on Oral Health. J Dentistry. 13:633.

Copyright: © 2023 Bawazir R. This is an open access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.