

Policy Statement 6.18 – Safety of Dental Amalgam

Position Summary

In December 2021, the Australian Government ratified the Minamata Convention on mercury with an effective implementation date of March 2022. The Convention, which is legally binding, requires that after 1 January 2024 amalgam can only be used in its capsulated pre-dosed form, and the use of bulk mercury is prohibited.

In addition, the Convention strongly discourages the use of amalgam in deciduous teeth, patients under 15 years of age and pregnant women, except when considered necessary and based patient needs.

1. Background

- 1.1. Dental amalgam has been used as a dental restorative material for more than 150 years. It has proved to be a durable, safe and effective material which has been the subject of extensive research over this time.¹
- 1.2. The FDI World Dental Federation's position on amalgam safety² includes:
 - dental amalgam is a clinically well-proven and successful filling material for teeth. It releases very small amounts (nanograms) of mercury, some of which are absorbed by the body. The level of urinary mercury is positively correlated with the number and size of amalgam restorations, but it is usually more affected by sources other than amalgam. Concerns have been expressed about the safe use of dental amalgam for the general population.
 - the preponderance of available evidence does not link the presence of amalgam restorations with chronic and degenerative diseases, kidney disease, autoimmune disease, cognitive dysfunction, adverse pregnancy outcomes or any non-specific symptoms in the general population. Vulnerable groups are patients with a proven allergy to amalgam or to one of its components, or with an existing severe renal disease. As with any other medical or pharmaceutical intervention, caution should be exercised when considering the placement of any dental restorative materials in pregnant women.
- 1.3 There is no evidence that replacement of sound amalgam fillings by alternative materials, without clinical indications, produces a better health outcome for patients.

Definition

- 1.4 DENTAL AMALGAM is a mixture of metals including silver, copper and tin with mercury forming a stable alloy.

2. Position

- 2.1. Dental amalgam should continue to be available for use as a dental restorative material in appropriate clinical situations.
- 2.2. Only capsulated dental amalgam complying with ISO 24234:2015 'Dentistry - Dental amalgam' should be used.
- 2.3. Dentists should minimise the use of dental amalgam in children, pregnant or breastfeeding women and in individuals with kidney disease.
- 2.4. Dental clinics should practice mercury hygiene and correctly dispose of amalgam waste.³
- 2.5. Dental amalgam restorations should not be removed and replaced with alternative restorative materials for non-specific or perceived health complaints unless the patient has been fully informed of the implications of this decision.
- 2.6. Further research into the potential adverse effects of the alternatives to amalgam is desirable.

¹ Scientific Committee on Emerging and Newly Identified Health Risks (SCENHR) https://health.ec.europa.eu/publications/safety-dental-amalgam-and-alternative-dental-restoration-materials-patients-and-users_en. Accessed 22022-08-18

² FDI World Dental Federation [Amalgam \(Part 1\): Safe Management of Waste and Mercury. www.fdiworlddental.org/amalgam-part-1-safe-management-waste-and-mercury](http://www.fdiworlddental.org/amalgam-part-1-safe-management-waste-and-mercury). Accessed 2022-08-18

³ Australian Dental Association. Guidelines for clinical handling of dental amalgam

Policy Statement 6.18

Adopted by ADA Federal Council, November 18/19, 2010.

Amended by ADA Federal Council April 12/13, 2012.

Amended by ADA Federal Council, August 27/28, 2015.

Amended by ADA Federal Council, April 6/7, 2017.

Amended by ADA Federal Council, November 20, 2020

Redrafted by ADA Federal Council, March 2023