

Position Summary

Mercury and waste amalgam discharge from dental uses, into the general environment, should be minimised.

1. Background

- 1.1. Targeted oral health promotion programs may reduce the need for restorative interventions.
- 1.2. Mercury is bio-accumulative and of particular environmental significance.
- 1.3. Many countries have strict mandatory limits on the levels of mercury in wastewater.
- 1.4. Amalgam use in Australia is declining.
- 1.5. Dental clinics are recognised as a source of environmental mercury.
- 1.6. Dentistry's contribution to environmental mercury is extremely small with about half of environmental dental mercury occurring as a result of cremations. Crematorium filters can capture up to 99% of discharged mercury vapour from amalgam waste.
- 1.7. Amalgam waste is created in dental clinics during the placement, adjustment, removal of amalgam restorations and with the extraction of teeth restored with amalgam.
- 1.8. Not all dental clinics create dental amalgam waste.
- 1.9. For some dental clinics it is impracticable to implement all amalgam waste management measures.
- 1.10. Dental amalgam waste in various forms may find its way into wastewater, as sediment in sewage sludge and landfills and may release mercury vapour in the atmosphere.
- 1.11. Chairside filters, suction filters and amalgam separators complying with ISO 11 143 'Amalgam separators' capture 95 per cent of the amalgam waste.
- 1.12. Alternatives to amalgam are not as amenable to recycling.
- 1.13. The Minamata Convention on Mercury (an international environmental agreement that addresses the adverse effects of mercury) was signed by the Australian Government on 10 October 2013 and is currently being considered by the Commonwealth Department of Agriculture, Water and the Environment for ratification.

2. Position

- 2.1. Mercury and waste amalgam discharge from the dental clinic and into the general environment should be minimised.
- 2.2. Dental staff must be trained so they can adopt best practices to minimize amalgam waste and ensure that waste is disposed of properly. Only those clinics where amalgam restorations are placed, finished, polished or removed should be required to adopt amalgam waste management protocols.
- 2.3. Any measure or regulation for amalgam waste management should be cost effective
- 2.4. Only pre-capsulated amalgam alloy complying with ISO 20749:2017 Dentistry — *Pre-capsulated dental amalgam* should be used in dental clinics.

- 2.5. Dental clinics must collect, store safely and forward for recycling as much amalgam waste as possible. Such waste includes:
 - used amalgam capsules;
 - excess amalgam not placed in restorations, including that left on instruments and matrix bands;
 - amalgam retained in chairside filters, suction filters and amalgam separators; and
 - extracted teeth which have been restored with amalgam.
- 2.6. Amalgam separators, which comply with ISO 11 143, should be installed in those dental clinics described in 2.3, if it is practicable.
- 2.7. Dental clinics generating dental amalgam waste should be encouraged and supported to adopt the amalgam waste measures in this Policy Statement.
- 2.8. Community and individual oral health promotion messages should be employed to reduce the need for restorative interventions.
- 2.9. Dental practices should comply where practicable with the ADA Guidelines for Amalgam Waste Management and the ADA Guidelines for Dental Mercury Hygiene.

Policy Statement 6.11

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