

Amalgam Waste Best Management Practices

Federal and state laws require specific amalgam waste management practices. Before they became requirements, many of these practices were promoted by CDA, the ADA and local sanitation agencies as best management practices (BMPs). CDA encourages dentists to follow all best management practices for amalgam waste.

- Install an amalgam separator compliant with ISO 11143. ⁺
- Collect and recycle, or manage as hazardous waste, all waste amalgam, elemental mercury, broken or unusable amalgam capsules, extracted teeth with amalgam, amalgam-containing waste from chairside traps, screens, vacuum filters, instruments and collection devices. ^{+*}
- Do not use line cleaners that have a pH lower than 6 or greater than 8, are acidic or contain oxidizers, including but not limited to bleach, chlorine, iodine and peroxide. ⁺
- Do not rinse amalgam-containing traps, filters or containers in the sink. ^{*}
- Do not place amalgam, elemental mercury, broken or unusable amalgam capsules, extracted teeth with amalgam or amalgam-containing traps and filters with medical "red-bag" waste or regular solid waste. ^{*}
- Collect and store dry dental amalgam waste in a designated, airtight container. Amalgam, which is designated for recycling, should be labeled "Scrap Dental Amalgam" with the name, address and phone number of your office and the date on which you first started collecting material in the container. In the past, dental amalgam scrap may have been kept under photographic fixer, water or other liquid. If you should encounter amalgam stored in this manner, do not under any circumstances decant the liquid down the drain, and discontinue this practice in the future. ^{*}
- Keep a log of your generation and disposal of scrap amalgam; inspectors may ask to see this to verify that your office is managing it correctly. A generation and disposal log is a record of what you placed in the amalgam container, when it was placed in the container and when the container was picked up by or sent to a recycler or hazardous waste hauler.
- Check with your amalgam recycler for any additional requirements. Some recyclers do not accept contact amalgam (amalgam that has been in the patient's mouth); others may require disinfecting the amalgam waste. All recyclers have very specific packaging requirements.
- Separate excess contact dental amalgam from gauze that is retrieved during placement and place in an appropriate container.
- Use chairside traps to capture dental amalgam.
- Change or clean chairside traps frequently. Flush the vacuum system before changing the chairside trap.
- Change vacuum pump filters and screens at least monthly or as directed by the manufacturer.
- Check the P-trap under your sink for the presence of any amalgam-containing waste.
- Eliminate all use of bulk elemental mercury and use only precapsulated dental amalgam for amalgam restorations.
- Limit the amount of amalgam triturated to the closest amount necessary for the restoration, i.e. do not mix two spills when one spill would suffice. Keep a variety of amalgam capsule sizes on hand to ensure almost all triturated amalgam is used.
- Train staff members who handle or may handle mercury-containing material in its proper use and disposal.

+ Mandatory per federal EPA rule on dental discharges

**Mandatory per California Code of Regulations Title 22*

Publicly Owned Treatment Works (POTWs) may choose to make some BMPs mandatory.

Information Resources

ADA Professional Product Review, Summer 2012, Amalgam Separators, (requires ADA member log-in)

ada.org/en/publications/ada-professional-product-review-ppr/archives

Amalgam and Dental Wastewater, Richard T. Kao DDS, editor, California Dental Association Journal, July 2004, Volume 32 No. 7

cda.org/Portals/0/journal/journal_072004.pdf

California Dental Association Issue Summary, *Dental Amalgam: Public Health and the Environment*, July 2016,

cda.org/Portals/0/pdfs/policy_statements/issue_amalgam.pdf

Directory of Amalgam Recyclers – compiled by the ADA

[ada.org/en/~media/ADA/Member%20Center/Files/Recyclers_Direct_4_02_12](http://ada.org/en/~/media/ADA/Member%20Center/Files/Recyclers_Direct_4_02_12)

Health Services Industry Detailed Study – Dental Amalgam, U.S. Environmental Protection Agency, August 2008, EPA-821-R-08-014

epa.gov/sites/production/files/2015-06/documents/dental-amalgam-study-2008.pdf

U.S. EPA, Dental Effluent Guidelines

epa.gov/eg/dental-effluent-guidelines

Vandeven J and McGinnis S, "An assessment of mercury in the form of amalgam in dental wastewater in the United States," *Water, Air and Soil Pollution*, 2005 June;164(1-4):349-66.

link.springer.com/article/10.1007/s11270-005-4008-1