

ADA Best Management Practices for Dental Amalgam

The most widely known national voluntary program for reducing dental amalgam releases to the environment is the “Best Management Practices for Amalgam Waste” developed and approved by the ADA Board of Trustees. ADA first published this program in January 2003 and updated it in 2007 to include amalgam separators. The ADA-defined BMPs are recognized as the industry standard; all state and local voluntary programs are based on or derived from the guidance provided in the ADA BMPs.

ADA provides guidance documents for its members and the general public for the proper management, recycling, and disposal of amalgam waste. ADA also provides advice for successful integration of BMPs into dental offices, a directory of national dental amalgam waste recyclers, recommendations for safe preparation and placement of amalgam restorations, safety information for managing mercury spills, and advice on the purchase, installation, and operation of amalgam separators (ADA, 2007).

BMPs for Dental Amalgam

Focus	Best Management Practice
General	Recycle amalgam waste as much as possible. Do not flush amalgam waste down the drain or toilet. Use line cleaners that minimize the dissolution of amalgam. Do not use bleach or chlorine-containing cleaners to flush wastewater lines. Because amalgam waste may be mixed with body fluids or other potentially infectious material, use protective equipment such as utility gloves, masks, and protective eyewear when handling it. Check with city, county, or local waste authorities for an amalgam waste recycler and for any special requirements that may exist in the area for collecting, storing, and transporting amalgam waste. Store amalgam waste in a covered plastic container labeled “Amalgam for Recycling” or as directed by the recycler. Store different types of amalgam (e.g., contact and non-contact) in separate containers for recycling.
Amalgam capsules	Do not use bulk elemental mercury, also referred to as liquid or raw mercury. Use pre-capsulated alloys and stock a variety of capsule sizes. Recycle used disposable amalgam capsules. Do not put disposable amalgam capsules in biohazard containers, infectious waste containers (red bags), or regular garbage.
Non-contact amalgam	Salvage, store, and recycle non-contact amalgam. Do not put non-contact amalgam waste in biohazard containers, infectious waste containers (red bags), or regular garbage. Place unused non-contact amalgam in a silver or gray storage container or a storage container with a silver or gray label (keep containers sealed at all times).
Contact amalgam	Salvage amalgam pieces from restorations after removal and recycle the amalgam waste. Do not put contact amalgam waste in biohazard containers, infectious waste containers (red bags), or regular garbage. Recycle teeth that contain amalgam restorations after confirming with the recycler that they will accept extracted teeth with amalgam restorations. Do not dispose of extracted teeth that contain amalgam restorations in biohazard containers, infectious waste containers (red bags), sharps containers, or regular garbage. Do appropriately disinfect extracted teeth that contain amalgam restorations (e.g., 10 minutes in a 1:10 bleach-to-water solution). Place unused contact amalgam in a silver or gray storage container or a storage container with silver or gray label (keep containers sealed at all times).
Chair-side traps	Use chair-side traps to retain amalgam and recycle the content. Do not rinse chair-side traps containing amalgam over drains or sinks. Disposable traps from dental units dedicated strictly to hygiene may be placed in with the regular garbage. Place disposable chair-side traps and the contents of reusable chair-side traps in a silver or gray storage container or a storage container with a silver or gray label (keep containers sealed at all times).
Amalgam separators	Select an amalgam separator that complies with ISO 11143. Follow the manufacturer’s recommendations for maintenance and recycling procedures.
Other amalgam	Recycle contents retained by the vacuum pump filter, amalgam separator, or other amalgam collection device that may be used, if they contain amalgam.
collection devices	Do not rinse vacuum pump filters containing amalgam, amalgam separator canisters, or other amalgam collection devices that may be used over drains or sinks. Change the filter according to the manufacturer’s recommended schedule. Place disposable vacuum pump filters and the contents of reusable vacuum pump filters in a silver or gray storage container or a storage container with silver or gray label (keep containers sealed at all times).
Bulk elemental mercury	Recycle bulk mercury. Check with licensed recycler to determine if they accept it. Do not pour bulk mercury waste in the garbage, into a red bag, or down the drain. Check with state regulatory agency and municipality to find out if a collection program is available.

ADA Nine Principles

In 2010, ADA adopted a resolution that endorses a mandatory national pretreatment standard for dental office wastewater if it is consistent with nine principles laid out in the resolution. The nine principles are (ADA, 2010):

1. Any regulation should require covered dental offices to comply with BMPs patterned on the those developed by ADA (see Table 6-1), including the installation of International Organization for Standardization (ISO) compliant amalgam separators or separators equally effective;
2. Any regulation should defer to existing state or local law or regulation requiring separators so that the regulation would not require replacement of existing separators compliant with existing applicable law;
3. Any regulation should exempt dental practices that do not place or remove amalgams, or only de minimis amounts of amalgams;
4. Any regulation should include an effective date or phase-in period of sufficient length to permit affected dentists a reasonable opportunity to comply;
5. Any regulation should provide for a reasonable opportunity for covered dentists to repair or replace defective separators without being deemed in violation of the regulation;
6. Any regulation should minimize the administrative burden on covered dental offices by (e.g.) primarily relying upon self certification (subject to verification or random inspection) and not requiring dental-office specific permits;
7. Any regulation should not include a local numerical limit set by the POTW;
8. Any regulation should not require wastewater monitoring at the dental office, although monitoring of the separators to assure proper operation may be required; and
9. Any regulation should provide that compliance with it shall satisfy the requirements of the Clean Water Act unless a more stringent local requirement is needed.