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## **ADA Guidelines on Amalgam Accumulations in Dental Office Plumbing**

### **1. Purpose**

The ADA encourages safe and common-sense practices within dental offices to minimize the environmental impact of dentistry and to protect those working in dental offices. These Guidelines offer simple-to-follow steps for dentists in situations ranging from minor plumbing work to demolition.

There is very little data to indicate that appreciable levels of amalgam adhere to plumbing or that waste amalgam that does adhere inside dental office pipes poses a risk to the environment or to individuals. Nor is there credible evidence that periodic cleaning is necessary. The amalgam appears to be very stable and immobile. Nevertheless, there is a general concern among some regulators and others about any mercury-related issue. When there is a need for plumbing work or other activities that might disturb adhered amalgam waste, some simple steps can be followed to address any health or safety issues.

### **2. Most Common Locations for Adhered Waste Amalgam**

Waste amalgam is a heavy substance that can settle in pipes if it gets past traps or filters.

As a result, if it adheres to dental office plumbing, it is likely to accumulate in P-traps closest to the point of initial discharge and in other low points in the plumbing.

Depending on the location with respect to other accumulation points, longer horizontal runs of plumbing tend to also accumulate waste amalgam. Amalgam is unlikely to accumulate elsewhere.

### **3. Situations in Which Precautions may be Needed**

Unless a specific problem is present, it should not be necessary to take action with respect to adhered amalgam waste in pipes except in the following circumstances:

- a. When plumbing work is being done in areas where waste may be likely to adhere;
- b. When plumbing work is being done near areas where waste may accumulate and the work is of such a nature as to make it likely to dislodge adhered waste elsewhere;
- c. During major operatory renovations;
- d. During demolition work.

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- e. Whenever the pipes are cleaned out or a dentist monitors adhered waste at the request of third parties.

#### **4. Suggested Guidelines**

- a. A dentist in a situation in which precautions may be needed should consider the following practices:

Hire a licensed plumber. (In the case of demolition, the work may not be done by a plumber. In those situations, be sure the contractor follows these suggested procedures.)

- b. Provide the plumber with a copy of these Guidelines and secure a written agreement to comply unless applicable code prescribes that demolition be done differently. (The agreement should be included in any contract or work order.)
- c. A bucket or other container of sufficient size should be placed under the work area, where feasible, to catch any waste which may fall from the plumbing.
- d. Non-porous tarps should be placed under the work area to collect any materials which may drip or fall or miss the bucket or other container.
- e. Prolonged use of a torch on plumbing should be avoided. Excessive heat may cause mercury in amalgam to vaporize.
- f. The plumber or any other person working with the affected pipes is best protected by wearing utility gloves and an impervious covering/apron. Many common demolition activities such as cutting out sewage pipes could release waste amalgam if present. The collected waste material may contain biohazardous components requiring the use of standard precautions (including the use of gloves and protective eyewear).
- g. Check vacuum pump filters and P-traps downstream from the areas undergoing work to make sure that dislodged waste materials do not result in blockage.
- h. When working in a building where significant waste amalgam accumulation in pipes and traps exist, either assume that the sludge is a hazardous waste, or get the waste tested by an environmental testing lab or environmental consultant using EPA approved tests.
- i. Any waste collected, along with disposable gloves and coverings should be placed in a recycling container, such as those used for waste amalgam. If such a container is not available, another plastic, re-sealable container may be used until recycling or disposal arrangements are made.



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- j. Ensure that the contractor is working with a reputable waste firm that is licensed to handle waste amalgam material. The waste hauler should receive an accurate and complete description of the materials collected in order to be able to prepare a waste “profile” meeting federal or state law.
- k. Request a receipt that potentially hazardous wastes collected by a licensed waste hauler from your practice will be disposed of or recycled properly. If handled as hazardous waste, the waste hauler must provide the owner with a “waste manifest” to document receipt and shipment of the waste.
- l. For line cleaning operations conducted prior to any plumbing work, comply with ADA BMPs to minimize the potential for release of mercury from amalgam.

## **5. New Operatory Design and Day-to-Day Operations**

If designing a new office or operatory, and during routine use by dental office personnel, some additional steps may be taken that could minimize the accumulation of waste amalgam in pipes:

- a. Adhere to local building codes for plumbing and any lease or other contractual requirements.
- b. Consider ease of future access to plumbing, especially to P-traps, or to other low points.
- c. Minimize extended horizontal runs which may tend to trap amalgam inside pipes away from collection points or traps.
- d. Install appropriate traps
- e. Follow ADA’s Best Management Practices for Amalgam Wastewater.
- f. Use the smallest sized filters and traps practicable.
- g. Isolate operatory piping, which may receive amalgam wastewater, from other piping to the extent practicable.

## **6. Sources for Additional Information**

ADA Amalgam BMPs