

# Quick Tips for the Dental Office



## Waste Management

### Waste Management

The practice of dentistry involves the generation of both hazardous and regulated medical waste; some wastewater discharges may also be of concern. Dental office personnel should be aware of the types of waste produced in the dental office and how to properly handle and dispose of these wastes. PDA recommends both the reduction and recycling of wastes as preferred waste management practices. For additional information about proper waste disposal and recycling information, please see PDA's Waste Management Guidelines.

### Hazardous Waste

Hazardous waste regulations are usually enforced at the state level. Waste is determined to be hazardous if it is listed on one of EPA's four lists found in **Title 40** of the *Code of Federal Regulations*, **Section 261**, or if it displays one or more of the following characteristics:

- **Ignitability** – easily combustible or flammable
- **Corrosivity** – high or low pH, dissolves metals or other materials, or burn skin
- **Reactivity** – undergoes violent chemical reaction with water or other materials
- **Toxicity** – harmful when ingested, inhaled or absorbed; includes heavy metals and certain organic compounds

***Hazardous waste must be transported by a licensed transporter and disposed of at an approved facility.***

Examples of hazardous materials commonly used in the dental office include:

- **Mercury and silver** used in making amalgam
- **Lead** found in lead-foil packets and lead shields
- **Silver** found in X-ray fixer solutions
- **Formaldehyde**, acetones and ketones found in chemiclave chemicals

Hazardous materials that are recycled are not considered hazardous waste. Depending on how you choose to handle hazardous materials or hazardous wastes, always contact the recycling, transportation or disposal facility for packaging, handling and shipping requirements.

## Universal Waste

Universal waste is classified as hazardous waste generated by a large population and is subject to streamlined regulations, designed to facilitate environmentally sound collection and increased recycling. Universal wastes may or may not be found in the dental office and include the following:

- Batteries
- Pesticides
- Mercury containing equipment and lamps
- Oil-based finishes
- Photographic solutions

Universal waste management does not require the use of a manifest, or a licensed transporter to transport waste to a permitted treatment, storage or disposal facility.

## Regulated Medical Waste

Regulated medical waste is regulated at the state level. Examples of regulated medical waste in the dental office include:

- Cultures and stocks
- Pathological wastes: tissues, body parts and body fluids – but not extracted teeth – removed during medical or laboratory procedures
- Human blood and body fluid waste: items saturated or dripping with blood, items caked with dried blood or items contaminated by body fluids during medical and laboratory procedures.
- Used sharps: used in patient care or treatment such as hypodermic needles, syringes and suture needles

Regulated medical waste must be handled and stored separately from other wastes. Appropriate containers such as double bags or rigid containers must be used to store regulated medical waste.

With the exception of used sharps, regulated medical waste may only be stored for up to 30 days from the date the bag is full or sealed (whichever came first) at room temperature or in the refrigerator (provided no problems are encountered with odors or organisms such as insects or mice), or for up to 90 days in a freezer.

Used sharps may be stored in appropriate containers until the containers are full.

## Waste Water Discharges

Sewage and other liquid wastes that are placed into sewer systems are referred to as “discharges.” Federal, state and local regulations govern waste water discharges into public sewer systems. In addition to ordinary sewage, waste water discharges from dental offices may include chemicals or metals that are subject to regulation. Chemical waste water discharges may include such wastes as:

- Straight alcohol
- Ether
- Peroxide
- Solvents
- X-ray fixer solution

cont'd.

## Waste Water Discharges, cont'd.

Metals contained in waste water discharges may include such wastes as silver from X-ray fixer solution, amalgam and metals from patient rinse waters.

Waste water discharges containing chemicals or metals are a concern for regulatory agencies because they may interfere with sewage treatment plant operations or pass through the treatment plant and are deposited in waterways and soils. Metals are known to pass through sewage treatment plants, and sewage treatment plants have established limits of metals permissible in their effluent and sludge.

Local requirements vary. Contact your local sewage treatment plant (*also referred to as a Publicly Owned Treatment Works, or POTW*) to determine what materials may be poured down the drain.

Dental offices that use a private sewage or septic system should not discharge waste waters containing potentially hazardous materials to their system. Discharge of such wastes to the environment may harm soils, groundwater and other bodies of water.

## Electronic Waste

Electronics constitute one of the fastest growing sources of consumer and commercial waste, and will undoubtedly be found in the dental office. Many consumer electronics contain heavy metals such as lead, cadmium and mercury, and are best kept out of the environment.

Pennsylvania's *Covered Device Recycling Act* establishes requirements for the disposal of certain electronics. The act stipulates that the following devices may not be disposed of as municipal solid waste:

- Desktop/laptop computers
- Computer monitors
- Computer peripherals
- Tablets
- Televisions
- E-Readers (with internet connectivity)

Landfills and other solid waste disposal facilities are no longer allowed to accept these devices or their components; these devices must be recycled.