Hazardous Waste Management: College of Dental Medicine

Keith Bottum
Senior Hazardous Materials Specialist
Environmental Health and Safety

Columbia University
Environmental Health and Safety
Training Outline

- No drain disposal

- Hazardous Materials Management
  - 5 L’s Rule
  - Hazardous Dental Waste
  - Amalgam, Capsules, Teeth
  - Chair Side Traps & Lead Foils
  - Aerosol Cans
  - Used Batteries & Lamps
  - X-ray Film & Silver Recovery
  - Pharmaceutical waste
  - Sharps
EMS Policy: No Drain Disposal

No Drain Disposal Policy

All waste must be collected for safe and proper disposal through EH&S
Hazardous Materials Management: 5 L’s Rule

- **Collect**
- **Label**
- **Lid**
- **Locate**
- **Leaks**

**Collect**
- Collect all hazardous chemical waste and submit a chemical waste pick-up request form for proper disposal.
- Periodically evaluate your chemical inventory, collecting chemicals for disposal that are unwanted, expired or have no intended use.
- If you are unsure if your chemical waste is a Hazardous Waste, consult EH&S at hazmat@columbia.edu.
- **DO NOT** Dispose of Hazardous Waste inappropriately or prior to determining its hazards. Hazardous Waste must never be poured down the drain.

**Label**
- Label the container as soon as you start collecting waste by affixing a completed Chemical Hazardous Waste Label.
- List all of the waste components on the Label.
- **DO NOT** Use chemical formulas or abbreviations on Hazardous Waste Labels.

**Lid**
- Keep a closed, tight-fitting Lid on Hazardous Waste containers at all times, except when actively adding or removing waste.
- Use a closable, tight-fitting Lid that will prevent the Hazardous Waste from spilling should the container be knocked over.
- Waste containers attached to equipment with waste lines or tubing, including HPLC machines, must have a snug fitting cap. Contact EH&S at hazmat@columbia.edu for specialty caps.
- **DO NOT** Leave a canned in a Hazardous Waste container.

**Locate**
- Locate Hazardous Waste containers at or near the point of the Hazardous Waste’s generation (i.e., Satellite Accumulation Area).
- **DO NOT** Locate Hazardous Waste containers outside of the room in which the waste was generated.

**Leaks**
- Inspect Satellite Accumulation Area weekly for Leaks.
- **DO NOT** Allow Leaking containers to remain in Satellite Accumulation Areas. Contact EH&S upon discovering the leak.

When a waste container is 90% full, submit a Chemical Waste Pick-up Request Form by visiting: [http://countr.ehs.columbia.edu/ehs/wastepickup/](http://countr.ehs.columbia.edu/ehs/wastepickup/)
Hazardous Materials Management: Waste Management

Types of Hazardous Dental Waste

- Amalgam and capsules
- Chair side traps
- Lead Foil
- Extracted Teeth
- Aerosol Cans

- Batteries
- Sharps
- Chair Side Lamps
- Pharmaceutical waste
  - lidocaine & marcaine carpules
Hazardous Materials Management: Amalgam & Capsules

- Designated collection containers are found at each station utilizing amalgam
- Amalgam and capsules must be collected in containers shown below
- Once the chair side containers are full, they must be poured into the 5-gallon pre-labeled amalgam container (located on VC 7th & 8th floor – between work stations)

[Images of collection containers]
ALL extracted teeth, including those containing amalgam, must be placed in non-hazardous waste containers along with a 10% bleach solution (located on VC 7th Floor)
Hazardous Materials Management: Chair Side Traps & Lead Foils

Must be collected after use and placed into the designated 5-gallon or 1-gallon non-hazardous waste containers located on each floor (located on VC 7th & 9th floor)
Aerosol cans, even if empty, must have the original cap placed on the can or the nozzle removed (located on VC 8th & 9th floor).
1st Waste Review
Hazardous Materials Management: Used Batteries

- No wet chemistry batteries

OR

8th Floor P&S Hallway: between P&S & Black Building hallway)
Hazardous Materials Management: Used Lamps

- Chair Lamps and other fluorescent lamps
  - All lamps are recycled due to Mercury content

Bring expired/broken lamps to the Sterilization Room on VC 8th Floor
Hazardous Materials Management: Pharmaceutical Waste

- Epinephrine containing carpules that are **full or expired**: 
  Bring to sterilization room or label container on 7th and 8th floor

- Epinephrine containing carpules that are **empty**: 
  Bring to sharps container – located on every floor
Expired or partially used medications may not be discarded in the trash, RMW or down the drain.

CODM Pharmaceutical materials must be managed through the Pharmacy and returned to them after use.

**EH&S CANNOT ACCEPT**

DEA Controlled Substances as waste.
Sharps

- All sharps must be collected in red, puncture resistant sharps containers, including:
  - Needles
  - Razor blades
  - Dental/orthodontic wire
  - Pipettes and pipette tips
  - Broken glass that has come in contact with blood or bodily fluids
  - EMPTY epinephrine and lidocaine vials

Located on all floors
2nd Waste Review

- 8th Floor P&S Hallway: between P&S & Black Building hallway)

- Located on all floors
What’s Wrong With This Picture?
What’s Wrong With This Picture?
Thank you!