




Hawaii Occupational Safety & Health Division
830 Punchbowl Street — Room 425
Honolulu, HI 96813



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Hazardous Materials and Wastes in health-care facilities



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Hazardous materials and wastes require special precautions.

If mishandled, they can cause:

Fires

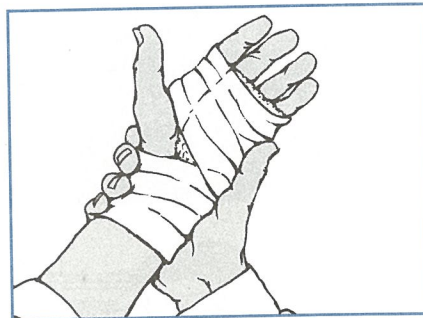
These can endanger everyone in the facility.

Injuries

These include burns, eye injuries and lasting disabilities.

Poisonings

Inhaling or swallowing certain substances can be deadly.



Infections

Some of the most serious are:

- HIV infection (HIV is the virus that causes AIDS)
- hepatitis
- TB (tuberculosis)
- staph and strep infections.

Other health problems

For example, long-term exposure to certain substances may increase cancer risks.

The publisher has taken care in the preparation of this booklet, but the information it contains does not necessarily describe particular situations you may encounter. You should ask a qualified expert or professional for advice about your particular situation.

This booklet is not a substitute for Occupational Safety and Health Administration (OSHA) standards, state and local government regulations, or your facility's policies and procedures.

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2002 Edition

Know your facility's hazardous materials and wastes program.

This program covers:

Your employer's duties

Your facility must have a written plan to:

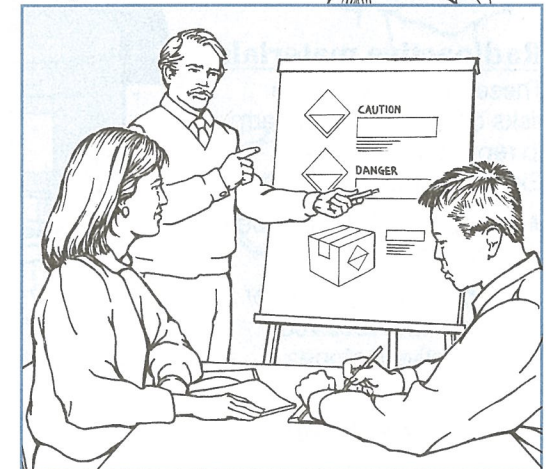
- identify and label all hazardous substances
- set up procedures for safe handling, storage, use and disposal
- train employees and monitor their health
- inspect, test and maintain work environments and equipment.



Your duties

As part of your job, you're expected to:

- know the hazards you may face
- follow proper procedures at all times
- take part in all training programs
- report any hazards or incidents promptly.



Keeping your facility healthy and safe takes teamwork!

Answers to quiz on page 15:
1. F 2. T 3. T 4. F 5. T
6. F 7. T 8. F 9. F 10. F

Types of hazardous materials and wastes

Depending on your job, you may use or be exposed to:

Chemicals

These may be:

- toxic (causes illness or death)
- corrosive (causes burns)
- reactive (explosive, gives off toxic vapors when exposed to other substances)
- flammable/combustible (catches fire easily, explosive).

Examples include:

- compressed gases
- disinfectants
- detergents
- cleaning solvents.

Radioactive materials

These may increase the risks of cancer and of harm to reproductive organs.

Examples include:

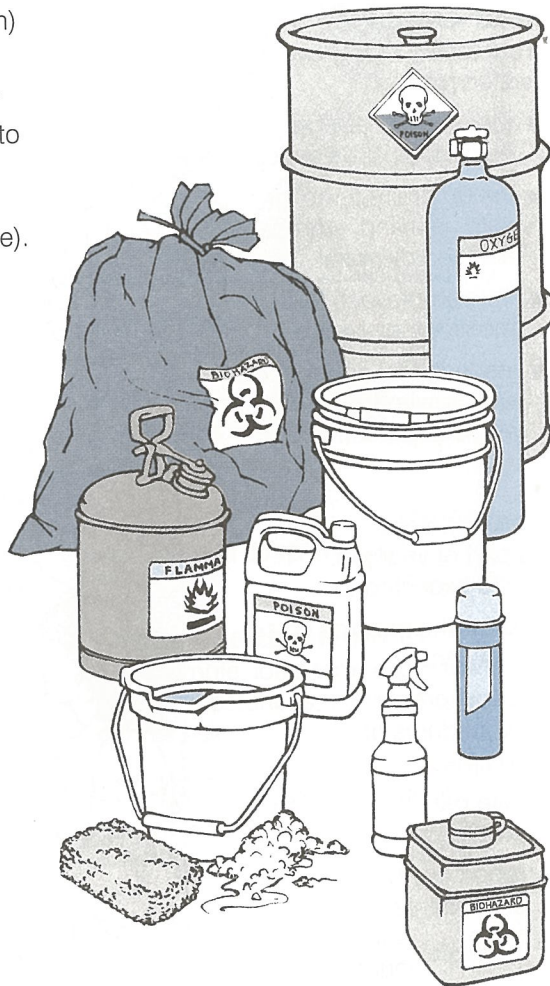
- radioactive isotopes used in nuclear medicine
- specimens or wastes of people who received radioactive isotopes.

Hazardous drugs

These may be toxic.

They include:

- chemotherapy, or "cytotoxic," drugs
- vaporized drugs, such as pentamidine.



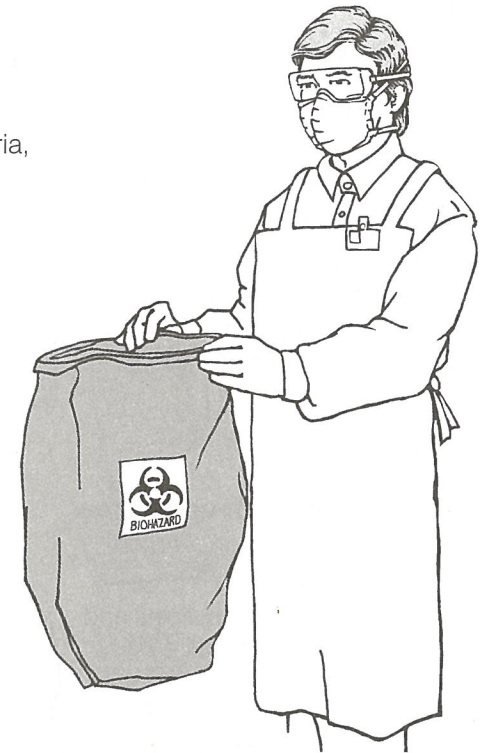
Infectious materials

These can spread viruses, bacteria, parasites and other germs.

Examples include:

- blood, blood products
- vaginal fluids, semen
- sputum (mucus from lungs)
- stool (feces), urine, vomit
- pus
- drainage from wounds
- saliva
- mucous membrane secretions
- amniotic fluid.

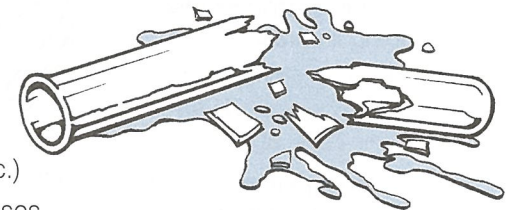
All body fluids except sweat can be infectious.



Know how you can be exposed.

Hazardous materials can get into your body through:

- injuries from sharps (needles, broken glass, etc.)
- inhaling dust, vapors or gases
- swallowing (for example, eating contaminated food)
- absorption through skin
- contact with broken skin (cuts, wounds, etc.)
- splashes into eyes.



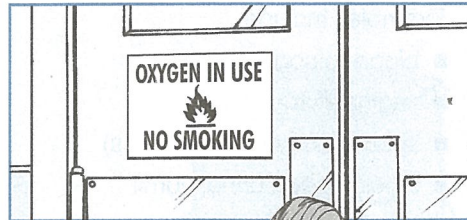
All staff -- in every department -- need to take precautions.

Always follow your facility's guidelines.

In general:

Be cautious.

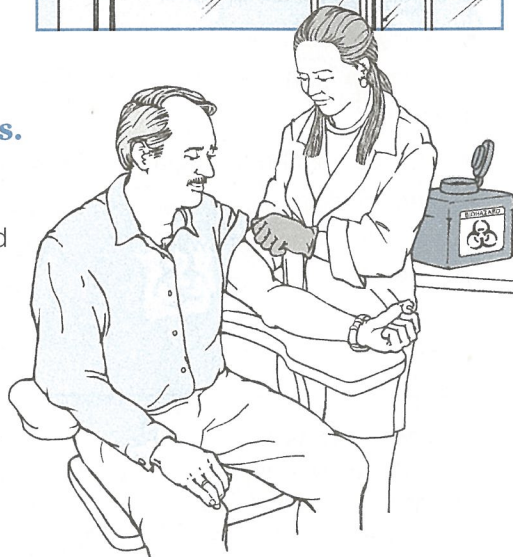
- Read all warning signs in the areas where you work.
- Know the hazards of a substance before you handle it.



Follow proper procedures.

Specific procedures depend on the task and department.

- Know your facility's policies and guidelines for every hazardous substance you may encounter.
- Ask questions if you're not sure about any procedure.
- Never take chances or shortcuts. Doing a job properly means doing it safely.

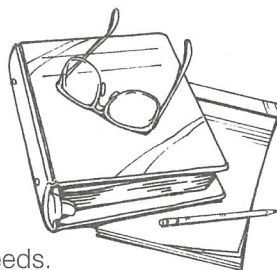


Take part in training programs.

They're your chance to:

- review policies and procedures
- keep up-to-date on changes
- learn new information.

Ask your supervisor or safety and health committee representative about your training needs.

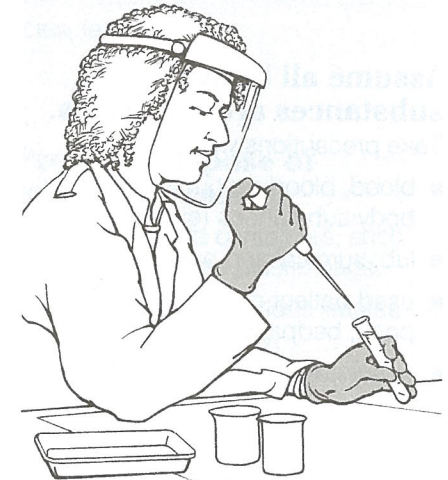


Use PPE (personal protective equipment).

Make sure gloves, masks, etc., fit you properly, meet all standards for your job, and protect against all the hazards you may face.

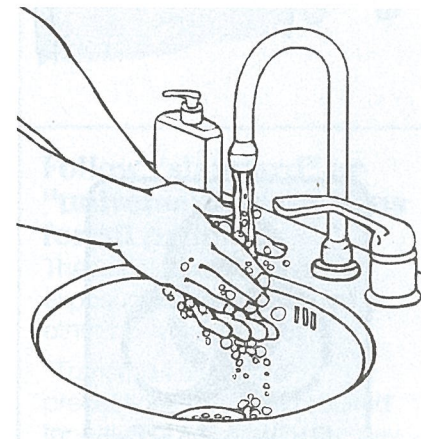
Be sure to:

- Inspect your PPE. Do this before and after each use.
- Maintain it. Follow the manufacturer's instructions.
- Dispose of it. (If reusable, store it in a clean, dry place that's designated for PPE.)



Ask about nonlatex alternatives.

If you may have a latex allergy, talk to your supervisor about powderless latex gloves, glove liners, hypoallergenic gloves and other alternatives. (See page 14 for more information on latex allergies.)



Wash your hands as required.

Do this:

- before entering or leaving a work area
- before and after each patient contact
- after handling any item that may be contaminated (linen, dressings, etc.)
- after removing gloves and other PPE
- after using the toilet, blowing your nose or covering a sneeze
- before eating, drinking, handling food or contact lenses, or smoking.

Keep food and drink out of work areas. Smoke only where permitted. Ask about any restrictions for contact lenses.

Use extreme caution with infectious materials.

Assume all body substances are infectious.

Take precautions with all:

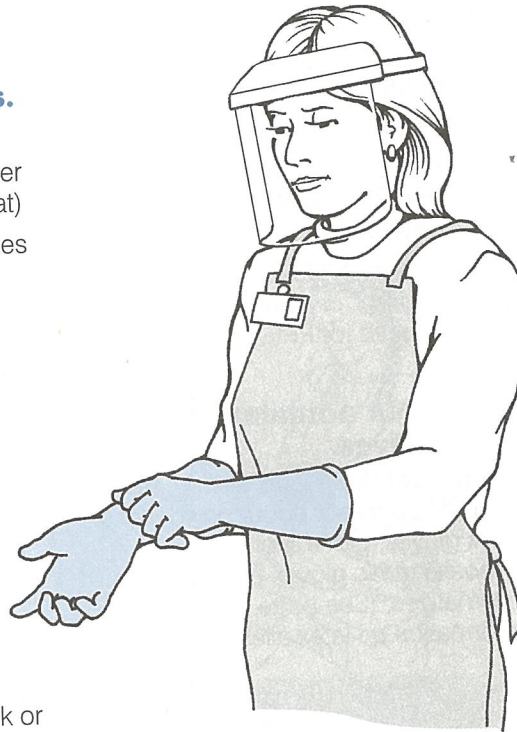
- blood, blood products and other body substances (except sweat)
- lab, surgical and autopsy wastes
- used patient-care items (bed pads, bedpans, linens, etc.)
- specimens and cultures
- used sharps (needles, scalpels, etc.)
- used medical equipment and instruments.

Use approved gloves and other PPE as required.

- Use eye protection, face mask or shield, apron or gown, and protective footwear if splashes, sprays or spills are possible.
- Use a surgical mask or an approved respirator, depending on which transmission-based precautions are needed.

Look for the biohazard symbol and the word BIOHAZARD.

All infectious materials should be labeled properly.



Always follow infection-control procedures.

Be sure to properly:

- Clean and disinfect rooms, floors, equipment, work surfaces, etc.
- Handle, store and transport lab samples, laundry, etc.
- Clean up spills.



Properly dispose of infectious wastes.

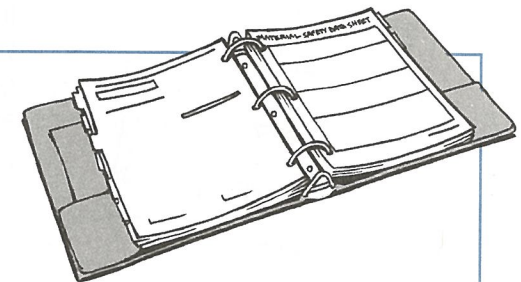
- Use approved containers, such as tear-resistant plastic bags.
- Make sure all infectious wastes are labeled properly.
- Handle plastic bags with care to prevent tearing or bodily contact.
- Disinfect or decontaminate carts and other devices used to transport infectious wastes.
- Dispose of infectious wastes in assigned areas only.

Always wash your hands as required.

Follow “standard” or “universal” precautions for all patients.

These help protect against exposure to patients' blood or other body substances.

“Transmission-based precautions” are also required for patients who have -- or may have -- a contagious disease.



If you have any questions about these precautions, ask your supervisor.

Guard against chemical hazards.

Know what you're handling -- and what the hazards are.

Read the container label.

Do this before you handle any chemical. If you can't read the label, or if it's missing, tell your supervisor. Never remove or cover labels. Label information includes:

- physical and health hazards
- degree of risk (for example, "DANGER!")
- instructions for handling, storage and disposal
- what to do in an emergency.



MATERIAL SAFETY DATA SHEET	
SECTION 1: IDENTIFICATION	Product Name: _____
SECTION 2: HAZARD IDENTIFICATION	Hazard Class: _____
SECTION 3: COMPOSITION AND INFORMATION ON INGREDIENTS	Ingredient Name: _____
SECTION 4: FIRST AID MEASURES	First Aid Measures: _____
SECTION 5: PREVENTION	Prevention: _____
SECTION 6: ACCIDENT RESPONSE	Accident Response: _____
SECTION 7: HANDLING AND STORAGE	Handling and Storage: _____
SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION	Exposure Controls and PPE: _____
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES	Physical and Chemical Properties: _____
SECTION 10: STABILITY AND REACTIVITY	Stability and Reactivity: _____
SECTION 11: TOXICOLOGICAL INFORMATION	Toxicological Information: _____
SECTION 12: ECOLOGICAL INFORMATION	Ecological Information: _____
SECTION 13: DISPOSAL CONSIDERATIONS	Disposal Considerations: _____
SECTION 14: TRANSPORT INFORMATION	Transport Information: _____
SECTION 15: REGULATORY INFORMATION	Regulatory Information: _____
SECTION 16: OTHER INFORMATION	Other Information: _____

Read the MSDS (material safety data sheet).

Know where MSDSs are located. If you have any questions, ask your supervisor.

MSDSs give you detailed information about the chemical, including:

- safe exposure limits
- special precautions to take
- physical and health hazards.

A list of hazardous chemicals used in your facility is available. Ask your supervisor about it.

Use all required PPE.

You may need:

- protective gloves
- safety glasses with side shields, goggles, or a face mask or shield
- safety shoes or boots
- coveralls or an apron
- an approved respirator
- hearing protection.

Follow proper handling procedures.

In general:

- Ensure adequate ventilation. (Use a lab hood or other local exhaust ventilation.)
- Don't rely on your sense of smell to warn you of hazards.
- Never mix chemicals unless you're trained and authorized.
- Use only approved equipment for dispensing hazardous liquids.



For proper transport, storage and disposal of chemicals:

- Use only approved, properly labeled safety containers.
- Store only in designated areas. (These should be well-ventilated.)
- Follow approved procedures for disposal. Never pour chemicals down drains or into ordinary waste containers.

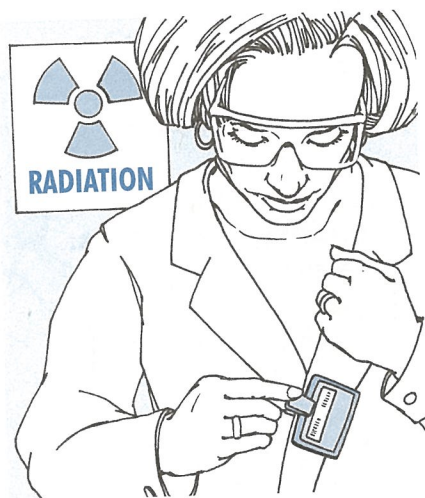


Be safe around other hazards.

Follow these general guidelines for:

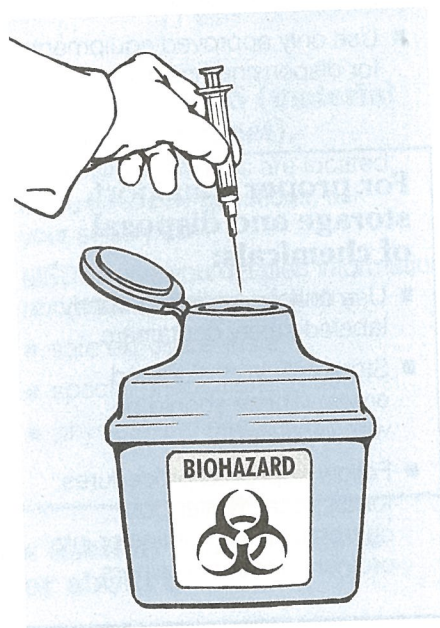
Radioactive materials

- Do not enter rooms marked with the radioactive materials symbol unless you're authorized.
- Handle radioactive materials only if you're trained and authorized.
- Always wear proper PPE. (This may include eye protection and a lead apron.)
- Help monitor your exposure. Always wear a film badge or other monitoring device, if required.



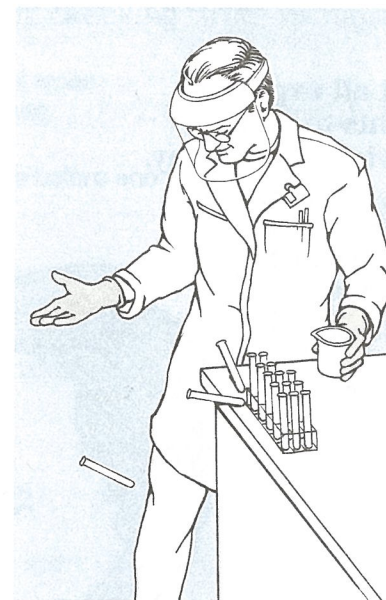
Hazardous drugs

- Follow approved procedures for preparing, administering and disposing of hazardous drugs and equipment (syringes, IV bags, etc.). Note: Guidelines may differ from those for standard medical waste.
- Use only approved, properly labeled safety containers for transport, storage and disposal.
- Wear proper PPE, if required. (This may include approved gloves and an approved respirator.)
- Make sure that all hazardous drugs and equipment are properly labeled.



Sharps

- Follow safe handling procedures at all times.
- Don't bend, break or recap needles.
- Don't try to catch falling objects (needles, glassware, etc.). Let them fall, then clean up.
- Dispose of used sharps right after use. Put them in designated containers only.
- Report full containers.
- Never reach into a container or force sharps into a full container.



Spills

- Follow proper procedures. Remember, these can vary, depending on the substance.
- Quickly clean up or contain the spill, if you're trained and authorized.
- Use proper PPE. You may be required to wear a mask, goggles, gloves, a gown and protective footwear.
- Use only approved disinfectants, absorbents, neutralizing chemicals, etc.

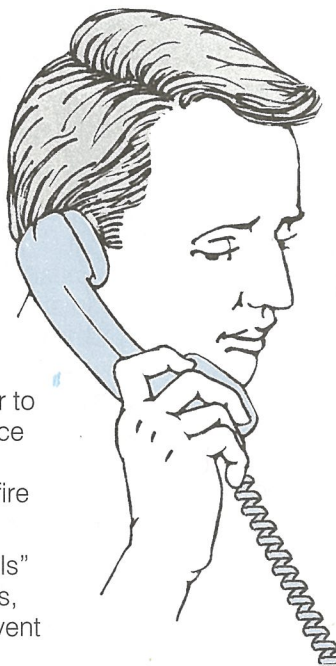


Don't take chances!
If you have any questions, ask your supervisor.

More safety tips

Report all exposure incidents to your supervisor right away.

- Follow general first-aid procedures. (These depend on the type of exposure.)
- Get proper medical evaluation and treatment.



Report unsafe conditions.

- Alert your supervisor to any hazard you notice (faulty equipment, leaking containers, fire hazards, etc.).
- Report all "close calls" and security hazards, too. (This helps prevent future incidents.)

Know emergency procedures.

- Know your duties. Take part in all emergency training programs and drills.
- Learn the location of fire alarms and extinguishers, first-aid stations, etc.

Take part in health screenings and immunization programs.

- Find out if you should get vaccinated for hepatitis B, hepatitis A or other diseases.
- Have TB tests as recommended.

If you have a latex allergy,

report it to your supervisor. Signs include skin irritation, rash, hives, swelling, runny nose and watery eyes.

Latex can also cause severe, life-threatening reactions in people with latex allergies. Signs include difficulty breathing, rapid heart rate and flushing of the face. Get immediate medical attention!

Protect yourself and others from hazardous materials and wastes!

Test your knowledge

about hazardous substances by checking "true" or "false."

1. You can use the same PPE for all types of hazardous materials and wastes. True False
2. It's important to wash your hands before and after each patient contact. True False
3. Body fluids that may be infectious include blood, vaginal fluids, semen and saliva. True False
4. Infectious wastes can be safely disposed of in any type of container. True False
5. You should read the label before handling any chemical. True False
6. Your sense of smell is enough to warn you of chemical hazards. True False
7. Hazardous drugs need to be properly labeled. True False
8. You should dispose of used sharps in the nearest waste container. True False
9. PPE needs to be inspected only before each use. True False
10. As long as chemicals are in proper containers, they can be stored anywhere. True False

I have read the booklet, "Hazardous Materials and Wastes in health-care facilities."

Employee's signature

Date

Answers are on page 3.

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