

Dental Shop Safety



Health & Safety Specialist
Environmental Health and Safety

Training Outline

- Types of machines at dental school lab
- General shop hazards
- General shop safety rules
- What to do in case of injury
- Machine specific hazards and precautions

Introduction

- Several shops are present on all campuses of Columbia University
- College of Dental Medicine casting lab has various types of machines for teaching and training students
- You must familiarize yourself with types of equipment you will be using and associated hazards before starting your work
- This training is intended as an introduction to general shop safety
- You must also get machine specific safety training from the Lab Supervisor before using any shop equipment

General Shop Hazards

Hazard to Eyes:

- Metal chips, particles, and or dust
- Use Appropriate safety glasses, goggles, shields, etc.

Hazard to Hands:

- Sharp chips, rotating/moving parts, cutters, etc.
- Keep your fingers away from moving parts
- Do not clean moving parts, use proper PPE



Entanglement Hazards:

- Long hairs, necklace, necktie, dangling ID badge
- Jewelry, loose cloths, watch or ring may get
- Caught in moving machine and drag you along
- Always remove or secure them before work



Hazards to Lungs:

- Dust in grinding or handling powdery materials

General Shop Hazards

Fire Hazards:

- Keep flammable materials (oily rags, paper) away from source of heat
- Oil rags must be kept in a safety can
- Know where the fire extinguishers are located in the shop
- Call Public Safety or 911 in case you cannot extinguish fire



Electrical Hazards:

- All power sources for machinery are potential sources of danger
- Equipment and electrical system must be properly grounded
- Lock-out/Tag-out Equipment before any manipulation
- Identify the location of the emergency stop prior to start of work
- Watch for frayed, exposed, or old wiring to protect from electrical shocks or electrocution
- Do not use extension cords to avoid tripping hazards



Shop Safety Guidelines

- No visitors (non CU-employees/students) will be allowed in the shop while the machinery is in operation unless accompanied by the supervisor
- No one under the age of 18 is allowed to use any tools or machinery unless assisted by a supervisor or a trained person
- Everyone must wear safety glasses when entering the shop! No one (such as a custodial staff, facilities maintenance personnel, etc.), enters the shop without safety glasses unless those machines have shielding in place
- Never work alone-always use the “buddy system”

When working in a dental lab, fundamental safety rules to observe are?

- A. Never use a machine if you do not have machine specific training
- B. Always secure loose hair and jewelry before starting work
- C. Do not work alone, "use buddy system"
- D. All of the above

In Case of an Injury

Report to your Supervisor:

- Any physical accidents regardless of severity
- Any damaged, defective tools, machines, or other equipment
- Discuss with your supervisor if you need to work after shop working hours.

**In an emergency - Call your Campus Public Safety Office
CUMC = 212- 305-7979 or 911**

Encourage Safety Culture

- Set good example by working safely
- Help others to work more safely
- Question unsafe practices
- Report unsafe conditions to your supervisors
- Always use proper PPE as required
- Keep work area clear of scraps and litter and Keep work site clean
- Never use your hands to wipe away debris

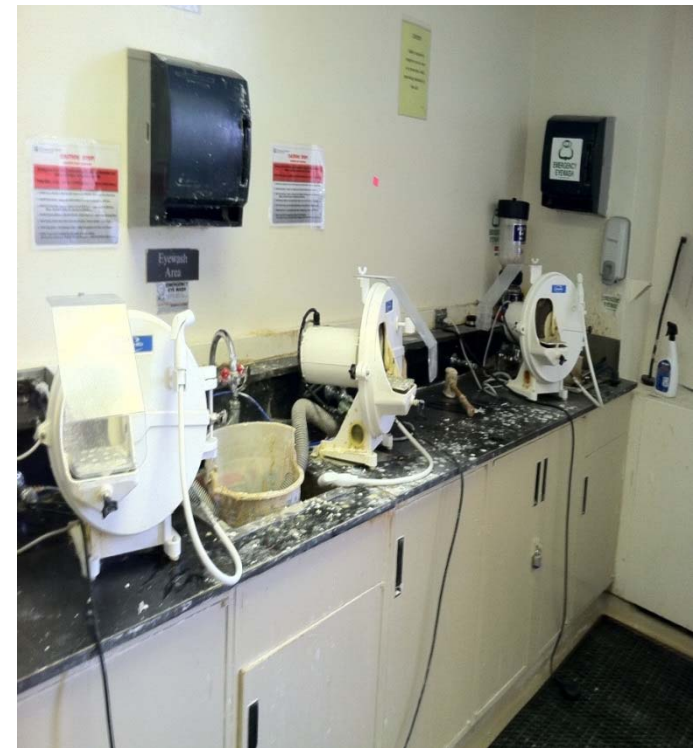
Machine Specific Training

- This general shop safety training does not replace machine specific shop training
- Each machine has specific operating procedures and safety requirements
- Talk to your supervisor to arrange machine specific training before using any machine
- You will not be allowed to use a machine before you receive a machine specific training

Machine Specific Hazards

TRIMMER MACHINE

- Secure all loose clothes and hair in place to prevent possible injury
- Keep clear of blade and other moving parts - keep your fingers away
- Do not push model against abrasive wheel with excessive force
- Use safety glasses when trimming
- Know where emergency shut-off is
- Use proper grounding
- Always keep the security door closed - never turn the motor on with door open
- Maintain and unit-inspect periodically
- Unplug the unit before maintenance



Machine Specific Hazards

HIGH SPEED LATHE MACHINE

- Secure all loose clothes and hair in place to prevent possible injury
- Ensure guards are in place before using
- Keep clear of blade and other moving parts- keep your fingers away
- Use safety glasses when using
- Know where emergency shut-off is
- Use proper grounding
- Never turn the motor on with door open
- Maintain & unit-inspect periodically
- Unplug the unit before maintenance



Hand Tools

Hand tools can cause injury if not used properly

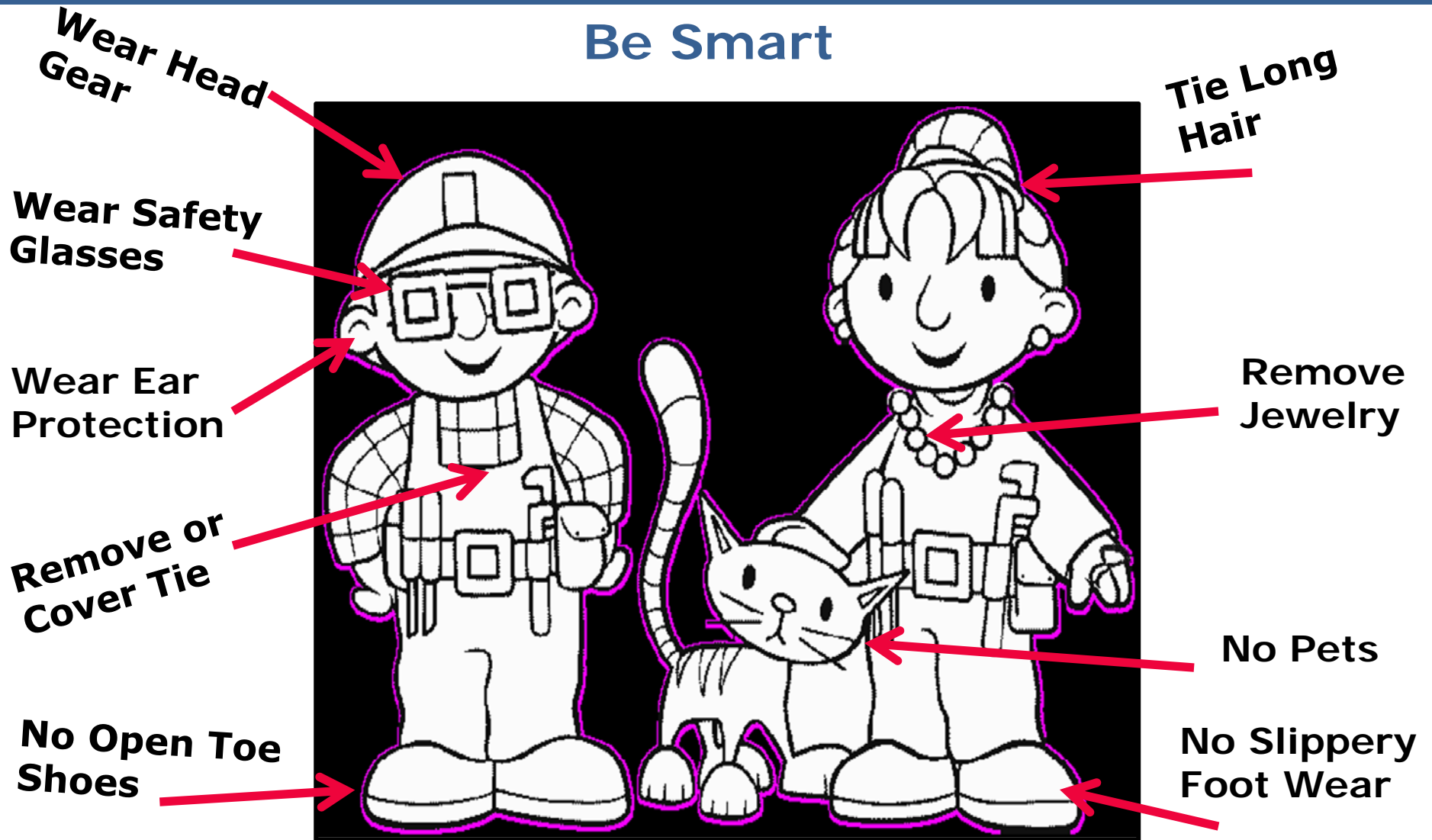
To avoid injury, you must:

- Keep your mind on the job
- Select proper tool for the job
- Keep tools in good condition
- Only use tool for the intended purpose.
- Never leave tools on the floor after use.
- Wear proper safety equipment, like safety glasses, as necessary



Safety Rules Review

Be Smart



Thank you!

Any Questions?