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.

Occupational Health & Safety
occusafety@columbia.edu
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
EH&S Responsibilities

• Provides oversight for this policy.

• Conducts periodic audits of AMS

• Provides General Shop Safety Training

• Chairs the AMS Workgroup.

• Investigates all accidents or unsafe conditions.

• Completes annual monitoring
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

- Wear Safety Glasses
- Remove or Cover Tie
- No Open Toe Shoes
- Tie Long Hair
- Remove Jewelry
- No Pets
- No Slippery Foot Wear
Thank you!

Any Questions?

Contact Environmental Health and Safety at occusafety@Columbia.edu if there are questions about this training.