

KEEPING YOURSELF AND OTHERS SAFE

Introduction to Personal Protective Equipment (PPE)

Clothing – Safety starts with what you're wearing. Wear work pants like Carharts or Dickies that are made of a tough, durable material to last a long time. No shorts, exposed midriffs, tank tops, dangling clothing or jewelry, etc. Pull long hair back and out of the way.

Safety Glasses – They prevent dust, debris, wood shavings, shards from fiberglass, etc. from getting into your eyes. Safety glasses are one of the most basic pieces of safety equipment that must be used when working with power tools in general, but they are required at all times on our site.

Ear Plugs – Hearing loss is a serious issue and, unlike other injuries, may not be immediate apparent. Wear ear plugs when you are using saws, drilling concrete, or around loud noise in general. Ear plugs can always be found in the saw bags, or you can ask an instructor if needed.

Hard Hats – Hard hats are required on all of our jobsites. Interior suspension protects your head from injury. Take good care of your helmet to maintain its structural integrity so that it works for you when it counts.



Gloves – Protect your hands from cuts and splinters. Special gloves may be required to protect your skin from certain kinds of chemicals or materials. Skin is the largest organ on the human body so it is well worth extra precautions.

Dust Masks – Properly known as disposable filtering face masks (which are different than professional respirators), they are designed to reduce inhalation exposure to particulate contaminants. We use them in the class when working with fiberglass insulation, mixing concrete, or sanding sheetrock.

Properly fitted earplugs



Roll: Your hands and plugs should be clean. Using your fingers, roll the plug into a thin cylinder—not a cone; not a ball—as tightly compressed as you can make it. No creases, please. You can accomplish this by squeezing lightly as you begin rolling, then applying more and more pressure as the plug becomes smaller. Make sure you roll; do not twist.

Pull: Hold the plug in one hand and reach over your head with the other hand. Pull ear up slightly and back to straighten the entrance to the ear canal.

Put: Put the earplug well inside ear canal, pushing gently. Stop pushing when your finger touches the ear.

If properly fitted, the end of the earplugs should not be visible to someone looking at you from the front.

Meet the Hammer

A hammer is a hand tool used to strike nails or other fasteners. It is used most often by carpenters, but is basic to almost all the trades in one form or another. There are many specialized hammers which can be used for different materials and fasteners.



Features of a Hammer

Handle - Handles are made of different materials to suit different needs. Wood is traditional and has a certain feel. Steel is strong. Fiberglass is the most shock resistant, but can splinter with time. The latter two are typically cushioned with neoprene handles for more comfortable handling.

Claw – The shape of the claw has different functions. A curved claw is good for pulling nails while a straight claw is best for prying. Framing hammers usually have straight claws.

Face – Options on the face include a bell shape which allows nails to be sunk "flush" or even with the surface without damaging material. Smooth faces are better for finish work because they will not mark up material, Serrated or waffle faces reduce nail slippage and are intended for rough work.

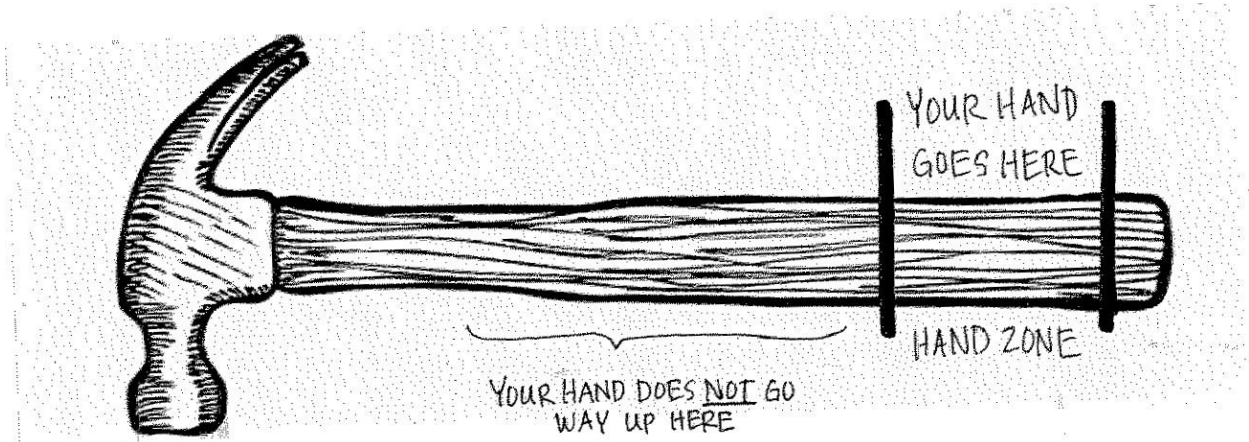
Weight – A 16-ounce hammer is the most common for general use and finish work, while a 20-ounce is more common for framing. There are several newer technologies that have reduced the weight of a framing hammer without compromising the force. It is always best to choose the weight that is right for you.

Using a Hammer Safely

- Keep hands and fingers out of the way of the swinging head.
- Wear eye protection, especially when hammering into concrete or other material that causes chipping more readily.
- Keep the face of the hammer clean to prevent injury caused by the face slipping off the nail.



Check Yourself Before You Wreck Yourself: How To Use A Hammer



It's the easiest tool to use right? You'd be surprised. Most people think that you can just pick up a hammer and start swinging. But the right technique can go a long way toward making a job go quickly and easily, not to mention painlessly.

Tips and tricks.

1. Use the handle to your advantage. Hold your hammer at the base of the handle, not up toward the head. Hammers have a long handle for a reason: power! If you find yourself "choking up" on your hammer, slide your hand back to the end of the handle. It's awkward at first, but doing so gives you more control and better protects you from vibration.
2. Start out safely. Hold your nail near the head when getting it set. This will give you a buffer zone between the hammer and the wood in case of a missed hit. For finishing nails too small for fingers, push the nail through a piece of cardboard to act as a guide.
3. Power vs. precision. When you're hitting hard, lock your wrist and swing from the elbow. There's no need to involve your shoulders unless you're working on the railroad. When starting a nail, or in tight spaces, loosen up; it's all in the wrist.
4. Let the hammer do the work. The length of the handle and the weight of the head are designed make your life easy. Let them. A smooth swing will keep the nail's path on the straight and narrow, and your arm rested.
5. Keep your eyes on the prize. Focus on your target. Take your eyes off of the nail mid-strike and chances are you'll be pulling that one out and starting over again.

6. Pack a pouch. Keep nails at the ready in a pouch, not in your mouth. Galvanized nails are especially dangerous as you'll inevitably ingest some poisonous zinc.

Hammer Skills

- Hold the hammer at the end of the handle.
- Tap the nail to start it and determine your swing.
- Keep your wrist loose and swing with wrist, elbow and shoulder.
- Hit the nail squarely on the head.
- Learn how to swing the hammer and sink different types of nails at different angles.
- Practice pulling nails and prying wood apart.



Using Power Tools Safely

Power tools are so common that many workers think they know just about everything there is to know about handling them properly and safely. But, if you look into the accident statistics, they reveal something quite different; power tools are often involved in some of the most serious accidents involving cuts, amputations, impaled objects, and eye injuries. Be smart with power tools and you can avoid becoming a workplace injury.

Here are some basic power tool safety tips.

1. Do not operate a tool until:
 - a. you have received proper training
 - b. you understand how to use it and
 - c. you have been approved to use it by an instructor. Always ask permission first!
2. Inspect every tool before using it. Check for missing parts like safety guards, loose or dull blades, cuts in the plug and cord insulation (this is a common one with our class), defects or cracks in the tool housing, problems with guards and safety shut-off switches, etc.
3. Make sure you know what kind of personal protective equipment you will need. Safety glasses, ear plugs, and, sometimes, dust masks may be needed.
4. Do not wear loose clothing or jewelry when you are using power tools. It's easy for such items to get caught in the equipment, which could pull you into it.
5. Never force a tool. If it's not doing what it's supposed to, ask an instructor.
6. Try to plug the tool into a GFCI protected outlet when possible. Be sure to check the plug and cord for damage before starting any work.
7. Unplug the tool before making any adjustments.
8. Watch your cords. Don't let cords dangle — they can be major tripping hazards for yourself and others. Keep cords away from traffic areas and pinch points to protect them from damage. When cutting, make sure the cord is out of the way and will move unrestricted with you. Never carry a tool by its cord – doing so damages the electrical connection.
9. Help us take care of our tools. Wipe them off if they are dirty. Return them to their proper place.
10. If a battery dies on a drill while you are using it, immediately set up the charger and charge it before taking a new battery. Note if it is a 14-volt or 18-volt and use the appropriate battery for the drill.



Meet the Drill



The cordless drill is one of the most basic power tools used in the trades. Typically used for installing screws or drilling holes, a cordless drill provides a convenient and portable way to get the job done.



Inserting a Drill Bit or Tip

Insert either a tip or drill bit. With one hand, hold the chuck in place and with the other, pull the trigger into the forward position to tighten the chuck around the inserted tip or bit. Reverse to remove or change the tip.

Features of a Drill

Reverse—Reverses rotation to allow you to back a screw or drill bit out.

Variable Speed Trigger—The harder you pull the trigger, the faster the drill turns. This feature allows you to start a screw more easily and provide more control for screwing or drilling.

Low Speed/High Torque—This is usually the "1" on the speed adjustment on a drill. You generally want the higher torque position for when you need more power, like for sinking a longer screw in wood, for example.

High Speed/Low Torque (torque—turning power) —This is usually the "2" or "3" on the speed adjustment on a drill. You generally want these higher revolutions-per-minute positions for faster drilling.

Adjustable Clutch —The adjustable clutch allows you to lower the maximum torque of the drill. This can be useful when you want to more easily control the depth of the screw, to prevent damaging or snapping off of the head when it is already set.

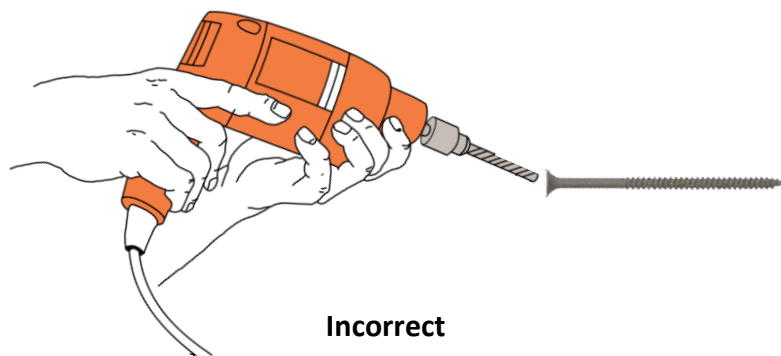
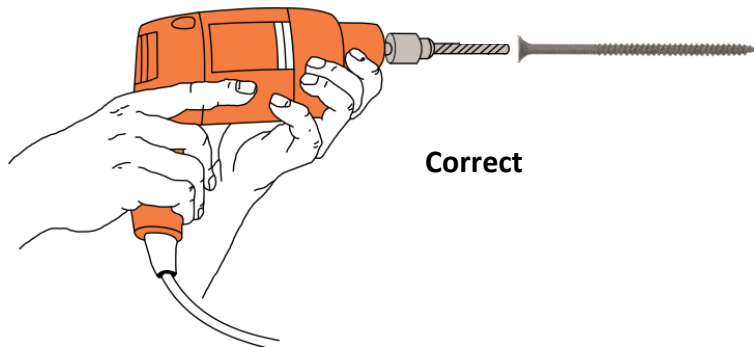
Using a Drill Safely

- Always use common sense.
- Wear safety glasses when drilling.
- Keep hands and fingers out of the way of the drill bit or tip.
- Make sure you know what you are drilling into and what might be behind it.
- Screws should never stick out into an exposed area.



How to Hold the Drill

When screwing, it is important to make sure that the shaft of the tip is in line with the shaft of the screw. Otherwise, you risk damaging the screw head and not being able to sink the screw properly.



Drill Skills

- Insert the magnetic tip.
- Use feather trigger to sink screws in sheetrock and to control depth. Compare the feel of "hitting" or "missing" a stud.
- Experiment with low and high torque while sinking long screws in wood.
- Test out the adjustable clutch while sinking screws in hardware. Adjust the clutch to keep from damaging the screw head.

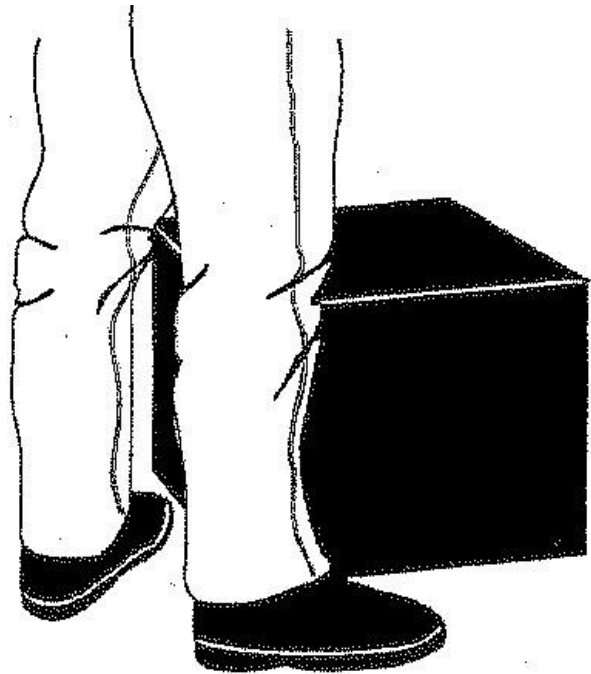
Proper Lifting Techniques

- Preventing back injuries is a serious workplace concern.
- More than one million workers suffer back injuries every year.
- Back injuries account for one out of every five workplace injuries and illnesses.
- Most back injuries are injuries to the lower back and happen when someone lifts something.
- Back injuries cause pain and discomfort, and can dramatically reduce your productivity and impact your lifestyle.
- You can reduce your risk of injuring your back by learning to properly lift objects.

How to Lift Safely

- Before lifting, think about what you are about to do.
- Examine the object for sharp corners, slippery spots, or other potential hazards.
- Know your limit and do not try to exceed it.
- Ask for help if needed, or if possible, divide the load to make it lighter.
- Know where you are going to set the item down and make sure it and your path are free of obstructions.
- Then follow the steps on the next page..





1. Stand close to the load with your feet spread apart about shoulder width, with one foot slightly in front of the other for balance.



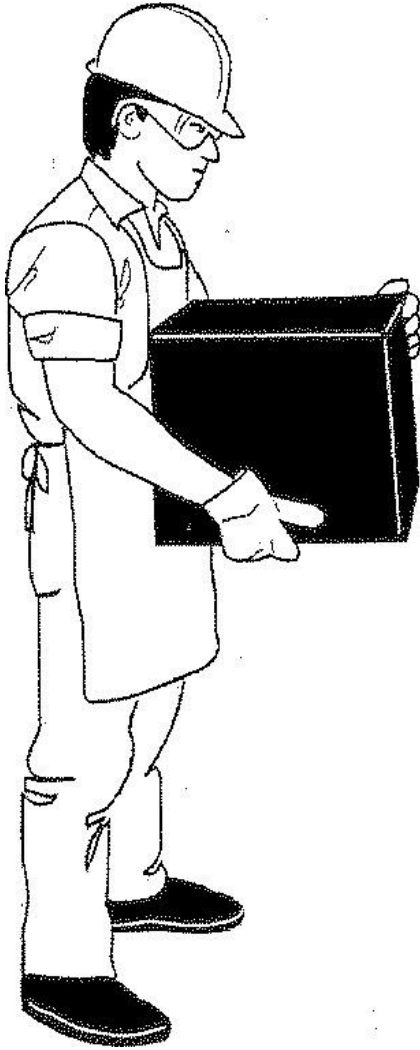
2. Squat down bending at the knees (not your waist). Tuck your chin while keeping your back as vertical as possible.



3. Get a firm grasp of the object before beginning the lift.



4. Begin slowly lifting with your **legs** by straightening them. Never twist your body during this step.



6. Once the lift is complete, keep the object as close to the body as possible. As the load's center of gravity moves away from the body, there is a dramatic increase in stress to the lumbar region of the back.

If you must turn while carrying the load, turn using your feet-not your torso.

To place the object below the level of your waist, follow the same procedures in reverse order. Remember, keep your back as vertical as possible and bend at the knees.

Conclusion

Using proper lifting techniques can help prevent downtime due to avoidable back injuries. With a little practice, precautionary methods such as these can become good daily habits that could help prevent back injuries-both on and off the job.

Credits

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