



Safety Note

UNIVERSITY OF CALIFORNIA
AGRICULTURE AND NATURAL RESOURCES
ENVIRONMENTAL HEALTH AND SAFETY



Safety Note #117

PORTABLE POWER DRILL SAFETY



Picture Courtesy of REC
Administrative Office

Information available from the U.S. Consumer Product Safety Commission indicates more than 2,500 people were treated in hospitals for portable power drill injuries during 2005. Typical injuries were cuts and punctures to fingers and hands.

The energy source for portable power drills is electrical energy accessed from a wall outlet or stored in a battery. Most portable power drills used in shops or at home are either 3/8-inch or 1/2-inch which refers to the largest size bit that will fit in the drill chuck.

Pre-Use Activities

- Thoroughly review and understand information provided in the portable power drill operator's manual with particular attention given to descriptions of safety procedures.
- Before using, always inspect the portable power drill for damage or disrepair. In addition, assure the drill chuck is functioning properly and as appropriate, inspect the electrical cord and plug or battery/battery pack.
- If the portable power drill fails your inspection, notify your supervisor and remove the portable power drill from service by attaching a red tag that states "DO NOT USE." Complete red tag with appropriate information.

Operating Precautions

- Never wear a tie or loose clothing or jewelry when using a portable power drill. Tie long hair back or secure under a cap. Always wear safety glasses or goggles when drilling.
- Do not operate a portable power drill in the presence of flammable fumes.
- Avoid using a portable electric drill when it is raining or in wet conditions.
- Use the correct drill bit for the type of material to be drilled and task at hand.
- Before inserting a battery or plugging in a portable power drill, turn the power switch off.
- Make all portable power drill adjustments with the power switch off and the drill unplugged.
- Insert bit into drill chuck and tighten with the chuck key. Remove chuck key from the drill chuck before starting the portable power drill.
- Keep your hands and fingers away from the rotating drill chuck and bit.
- Do not force a drill bit against the stock being drilled. If a drill bit is not penetrating properly, turn the drill off and change the drill bit.
- Use caution when changing drill bits, as they are sharp and can become hot during use.
- Only recharge a portable power drill battery or battery pack with a battery charger recommended by the manufacturer.
- Always use the type of battery or battery pack specified for the portable power drill.
- Never carry a portable power drill by the power cord.
- When carrying a portable power drill, turn the drill off and keep your index finger away from the power switch.
- Never stop the rotation of the drill chuck or bit with your hands or fingers.
- Always clean your work area upon completion of the drilling task.