

Safe Use of Chain Saws

Agricultural workers use chain saws for many tasks, from pruning to land clearing to logging. Chain saws are inherently dangerous. There are no existing technologies that guard the open chain from unintended contact. As a result, the operator and all those nearby must take safety precautions.

TRUE STORY

An orchard worker was clearing a tree branch that had fallen across a phone line. The branch was still attached to the tree and was under significant tension. As the worker made the final cut, the tree limb "jumped." As he moved to avoid the tree limb, he laid the still-running chain saw across his thigh, nearly severing his leg.

What could have prevented this accident?

- Anticipate the effect of a limb under tension.
- Use a manual saw to make the final cut.
- Wear cut-resistant saw chaps.

Risks of Chain Saws

- **Dust.** The essential cutting feature of a chain saw generates dust particles that can cause eye and respiratory system injuries.
- **Noise.** Chain saws generate potentially hazardous noise levels from both the combustion process and from normal operation.
- **Body positioning.** Chain saw users may adopt harmful body mechanics or dangerous body positions when pruning.
- **Lack of design enhancements.** Older chain saws lack safety features. Newer models offer improved clutches and brakes that provide almost instantaneous stopping of the chain when pressure is removed from the trigger. Other enhancements include weight reduction, vibration reduction, and better weight distribution to lessen operator fatigue.

EMPLOYER/EMPLOYEE RESPONSIBILITIES

Employer:

- Purchase chain saws with the most updated protective equipment that feature noise and vibration reduction. Acquire chain saws that provide sufficient capacity to meet all anticipated needs.

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- Confirm that all safety devices are kept in place. Examples include installing hand guards that provide partial protection from broken chains and improvements in teeth design and the chain bar tip that reduce the likelihood of "kickback."
- Train employees on proper chain saw operation and distribute personal protective equipment to everyone who may use your chain saws.
- Verify that the operator and others in the immediate vicinity wear appropriate protective gear, including protection for eyes and ears.
- Inspect and maintain all equipment in accordance with the manufacturer's specifications.

Employee:

- Place the saw on a solid, stable surface to start a "pullstart" chainsaw. Keep one hand firmly in contact with the saw while pulling the starter rope with the other.
- Never operate the starter when the chain is in direct contact with the object to be cut or when holding the saw in the air.
- If the chain binds or becomes wedged in a cut, use wedges to spread the cut and remove the saw before restarting.
- Ensure that both cutting and clearing teeth are sharp and free of accumulated oil, sap, and saw dust.
- Check that chain tension is within manufacturer's specifications.
- Verify that all guards are in place and that all fittings are properly adjusted and tightened.
- Check for proper levels of fuel and cutting oils. Never fill fluid reservoirs while the saw is hot.
- Estimate the "fall line" with care to ensure it's free of people and equipment.
- Always keep a firm two-hand grip on the saw while the engine is running.
- Use gasoline-fueled chain saws at or below shoulder height to prevent fuel spills and fires.
- Make all cuts using the in-running lower side of the chain while keeping the "bumper" firmly against the object being cut.
- Clear all small limbs and brush with hand tools before using a chain saw.
- Make chain saw cuts beginning with smaller limbs and branches, working your way to the larger cuts.
- Cut sections in pieces that are small enough for workers to clear away easily before the next cut is made.
- Ask your supervisor immediately if you have a safety question.

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