

Chainsaw Safety

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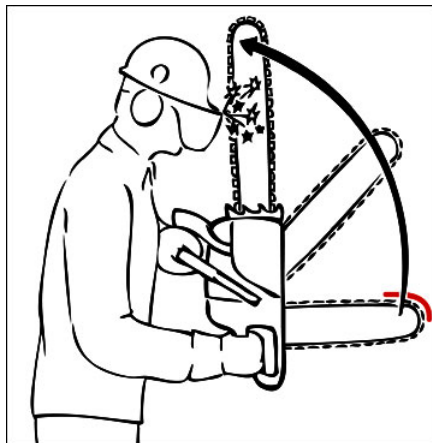
FOR AGRICULTURAL HEALTH, INJURY PREVENTIC

Monthly Safety Blast

Produced by the Southwest Center for Agricultural Health, Injury Prevention and Education

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According to the Centers for Disease Control and Prevention (CDC), approximately 36,000 people are injured by chainsaws annually, and that number continues to grow. Medical costs for chainsaw injuries based on these facts amount to about 350 million dollars per year. Kickback, binding, and pull-in are injuries from chainsaws that are highly documented on each state's fact sheets.



The kickback of a chainsaw occurs when the teeth on the chain catch on something as they rotate around the

tip of the blade. The teeth may have enough force to cause the blade to kick back violently toward you, hence the term "kickback." Chainsaw kickback could also happen when the nose of the blade strikes another object or starts to bore a cut improperly or when the blade nose or tip catches the bottom or side of a cut during reinsertion. See picture to the right for example.

Binding (or pinching) occurs when the material you're cutting clamps down and stalls the cutting chain inside of the kerf (or cut). Binding can lead to kickback, pushback, and pull-in. Be aware of how the weight of the branch or log can shift and bind the saw when you are cutting. Learn cutting techniques that help avoid binding. The proper use of appropriate felling and bucking wedges can also help prevent binding.

Pull-in occurs when the chain at the bottom of the bar stops suddenly due to pinching or striking a foreign object, immediately drawing the saw forward. To help minimize pull-in, start your cut with bumper spikes set against the branch or log you're cutting and make sure you cut only when the saw is up to full speed. Be aware of weight shifts or situations that can bind the saw.

Personal Protective Equipment (PPE):

Before you even think about cranking the saw and starting to cut, protect yourself. **ALWAYS** wear protective clothing and gear, including:

- Leg protection; such as chaps or cut-resistant pants
- Hard hat
- Gloves with an enhanced gripping surface and cut resistance
- Eye protection with side shields
- Hearing protection; such as earplugs or earmuffs
- Boots or shoes with steel toes and non-skid soles

Dos and Don'ts:



Above all, read the owner's manual carefully before operating a chainsaw. The following list is not all-inclusive, merely a reminder to keep safety first in your mind at all times.

Dos

- Keep the cutting area clear of spectators and pets.
- Work with a partner if possible.
- Avoid overhead hazards, such as dead, hanging limbs that may fall and utility lines.
- Keep the chain clean, sharp and lubricated with the correct oil.
- Make sure the chain oil supply is full before starting the saw.
- Be careful of inclines and ground that is uneven.
- Stand to the side of what you're cutting.
- Cut at full throttle; bring the saw up to speed before starting cuts.
- Keep both hands on the saw handles.
- Let the saw come to a complete stop before reaching for the chain or bar.
- Turn off the saw or activate the chain brake when carrying the saw.
- Carry the saw so that the bar is pointing behind you.

Don'ts

- Do not wear loose clothing.
- Do not use the tip to cut.
- Do not cut with a chainsaw above shoulder height.
- Do not refuel a hot saw.

Be aware of the effects of gravity on the wood you are cutting. Gravity will cause a log to bend when it's cut, resulting in compression and tension. Compression can lead to binding of the saw and tension can cause the wood to spring out when released.

The SW Ag Center has created 21 tailgate trainings for logging and forestry. The one below focuses on Chainsaw Safety. You can find this tailgate training and the rest of the series at <https://www.uthct.edu/swagc-logging-forestry-safety-series>.

Case Study:



Incident Summary:

Earle, a new log truck driver, arrived at his last logging site of the day around 4:00 p.m. It was a comfortable, sunny day in early June. Earle waited in the cab while his trailer was loaded with hardwood. When loading was complete, Earle pulled up onto the logging road and engaged the parking brake. He grabbed a chainsaw from the truck and started de-limbing his load. Earle stretched upward, using the tip of the saw to remove a small branch. The chainsaw kicked back and Earle lost his grip. Earle suffered a severe laceration to his right arm and a less serious cut on his left arm. The right arm was amputated about six inches below the shoulder. The left arm was saved, but Earle lost about 25% use of that arm. He was not able to return to work.

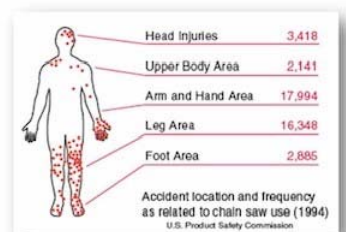
Discussion Questions:

1. What did Earle do wrong?
2. Could this accident have been prevented?
3. What are the ramifications of this accident?

Take Home Message:

Only experienced loggers should operate chainsaws.

To avoid chainsaw kickback, do not saw with the tip.



References:



Take the [Chainsaw Safety](#) quiz to test your knowledge!

Disclaimer: The facts and information listed above are merely suggestions for your safety, but are in no way a comprehensive and exhaustive list of all actions needed to insure your safety.

Monthly Blast by our Outreach Health Education Coordinator, Nykole Kafka Vance, MS, CEP, CHES

Sharing is caring!



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