

Sí Se: Salud y Seguridad en el Trabajo
Health and Safety Education for Forest Workers

Chainsaw Safety



Alliance of Forest Workers and Harvesters
Labor Occupational Health Program, U.C. Berkeley

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About this training guide

Introduction to the promotora

This flipchart book is your training tool for teaching forest workers about the hazards that come with working with chainsaws. The information is tailored for workers in Oregon, but most of it is relevant for forest workers throughout the U.S. To teach this session, stand the flipchart up with the illustrations or photos facing toward the workers you are training. On the other side are the instructions for what to say and do during the session.

Instructions for the promotoras will be in red.

Answers to questions will be in shaded boxes. Wait for participants to give answers based on what they know, and then add any missing points or clarify any information needed.

Flip the page to the next page when you are done.

Learning objectives for this session

By the end of this session, participants will know about:

- The hazards of working with chainsaws,
- How to protect themselves, and
- What employers should do to protect their workers who use chainsaws.

Materials needed for this session

A few pages of red dots.

Pens and paper for small groups.

Flipchart paper and markers for promotora.

The booklet.¹

Time for this session

The total time for this session is approximately 2 hours. These are the main activities, with estimates for how much time each part will take.

Welcome and “Pre-test”	20 minutes
Introduction: Hazards of Working with Chainsaws (dots)	15 minutes
Protecting Pablo	20 minutes
Creating a Chainsaw Safety Plan (small groups)	30 minutes
Review and Speaking up	20 minutes
Wrap-up and Evaluation	15 minutes

¹ The booklet is entitled *Staying Safe at Work and Your Rights on the Job*. References to page numbers for other resources in this flipchart are to pages in the booklet.

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**A joint project of the
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and the
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Welcome the participants, including family members, and introduce yourself. Explain that while the workshop will focus on what forest workers can do to stay safe at work, we also know that families are an important resource and source of support, to help workers stay safe. Have participants introduce themselves, or do some kind of activity or “ice breaker” that helps people relax and get to know each other.

Say: Today we’re going to talk about chainsaws and how to protect yourselves from getting hurt. We are going to start with a few questions.

Ask the “pre-test” questions for this unit, following the script.

Let’s first start by thinking about all the ways chainsaws can potentially harm you.

Hand out a sheet of red dots to each participant.

Say: This is Pablo, a new forest worker. Place a dot on a part of Pablo’s body that could be harmed while working with a chainsaw. As you place a dot, explain why you placed the dot there and how he could be harmed.

Let people take turns placing a dot on a part of the body and explaining why they put their dot there. Keep giving people a turn until no one has anything to add.

Then make sure the following points are made:

- The blades can cut you.
- Chainsaws are heavy and can cause a back injury.
- Noise* from the chainsaws can cause hearing loss.
- Chainsaws can kick back and cause an injury.
- Vibration from the chainsaw can cause numbness and injuries to your muscles, nerves, or tendons (sometimes called “ergonomic” injuries).
- Flying debris can cause an eye injury.

* A note about noise: Working with chainsaws can cause long term hearing loss if you don’t use hearing protection, even if you do not notice it right away.

Where can Pablo's body be harmed by working with a chainsaw?



Say: Now we are going to talk about how to keep Pablo from getting harmed while working with a chainsaw. He needs your help in knowing how to work with chainsaws safely. We will talk later about everything the employer should be doing, but for now, let's come up with a list of tips or suggestions you have for Pablo, based on your own experience.

Let's start with what Pablo should do before he starts using the chainsaw. What advice would you give Pablo?

Let people respond and then make sure the following points are made:

Before Starting the Saw

- Check the controls, the chain brake, the chain tension, and all the bolts and handles on the chainsaw to make sure they are functioning properly.
- Make sure the clutch cover is not broken or exposing the chain or sprocket.
- Sharpen chain teeth.
- When adding fuel to the chainsaw, make sure you are far away (at least 10 feet) from any source of ignition.
- Start the saw on the ground, with chain brake engaged, and 10 feet from fueling area.

Ask: Is there any personal protective equipment Pablo should wear to protect him from the hazards of working with chainsaws that we identified earlier?

Let people respond and then make sure the following points are made:

Protective Equipment

- Wear ear plugs or ear muffs for hearing protection.
- Wear gloves to reduce vibration.
- Wear goggles to protect the eyes.
- Wear chaps to protect your legs and safety shoes to protect your feet.
- Wear a hard hat to protect your head from falling trees and branches.

Ask: What about while running the saw? What should he do to stay safe?

Let people respond and then make sure the following points are made:

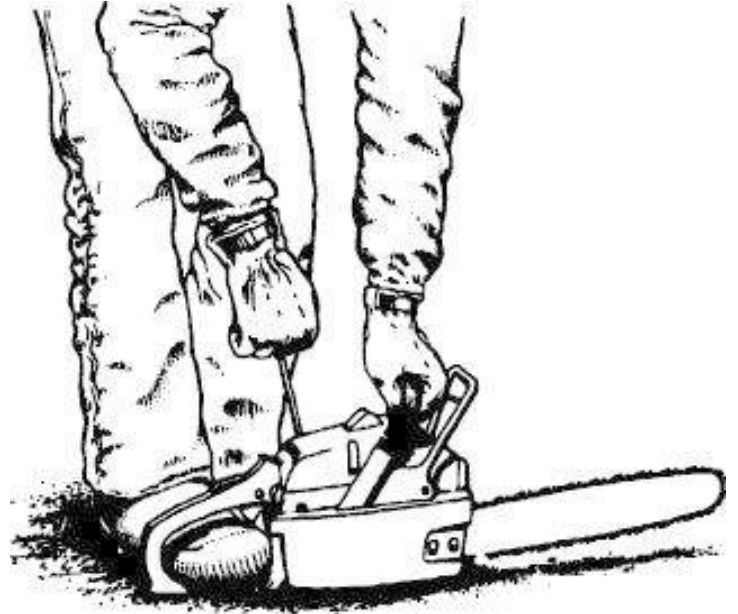
While Running the Saw

- Clear the area of obstacles that might interfere with cutting the tree or brush.
- Keep hands on the handles and have secure footing while operating the chainsaw.
- Don't cut directly over head or between legs.
- Look up before cutting. Are there loose limbs in the tree that may fall?
- Be prepared for kickback. Don't cut with tip of saw; keep track of where tip is.
- Shut off or release the throttle before retreating, carrying the chainsaw more than 50 feet, or over hazardous terrain.
- Don't carry the saw on your shoulder. If you fall, the blade is next to your neck.
- Work at a safe distance from other workers (twice the height of the trees being felled).
- Communicate with and watch out for co-workers.
- Take breaks. Very tired workers make mistakes and get hurt.
- Inexperienced workers must be supervised by a trained worker when felling trees.

Tips for safe chainsaw use

Before starting the saw

- Check chain, bolts, brake, clutch cover, handles, ignition.
- Sharpen chain teeth.
- Add fuel 10 feet from anything that could ignite it.



Protective equipment

- Ear protection
- Gloves
- Safety glasses/face guard
- Chaps
- Safety shoes
- Hard hat



While running the saw

- Start saw on ground 10 feet from fueling area.
- Firm grip and footing.
- Don't cut between your legs. Stand to one side of limb you are cutting.
- Look up before cutting. Are there loose branches that may fall?
- Prevent kickback. Don't cut with the tip of the saw; keep track of where the tip is.
- Shut off or apply chain brake when carrying.
- Work at a safe distance from other workers (twice the height of the trees being felled).
- Communicate with and watch out for co-workers.
- Take breaks. Very tired workers make mistakes and get hurt.
- Inexperienced workers must be supervised when felling trees.

Say: Let's talk a little about felling trees. Felling trees is one of the riskiest jobs in the woods, so it is worthwhile to pay special attention to it.

Ask: What work rules should be in place for felling trees?

Let people respond and then make sure the following points are made:

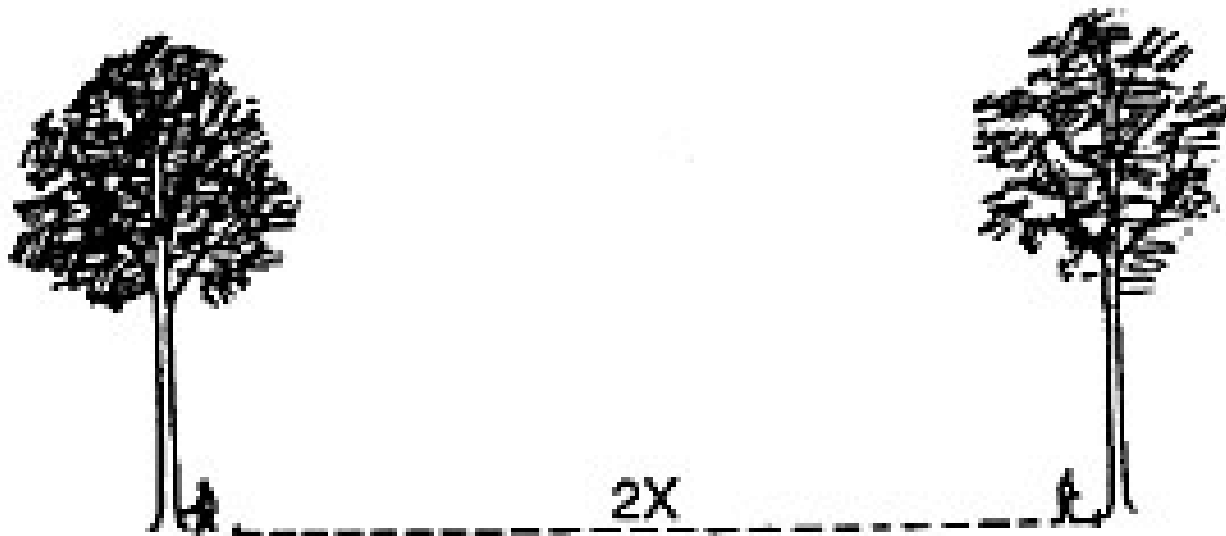
- Workers should be spaced appropriately. They should be more than two tree lengths apart.
- Workers should stay aware of each other, and communicate.

Ask: What should Pablo do before cutting down a tree?

Let people respond and then make sure the following points are made:

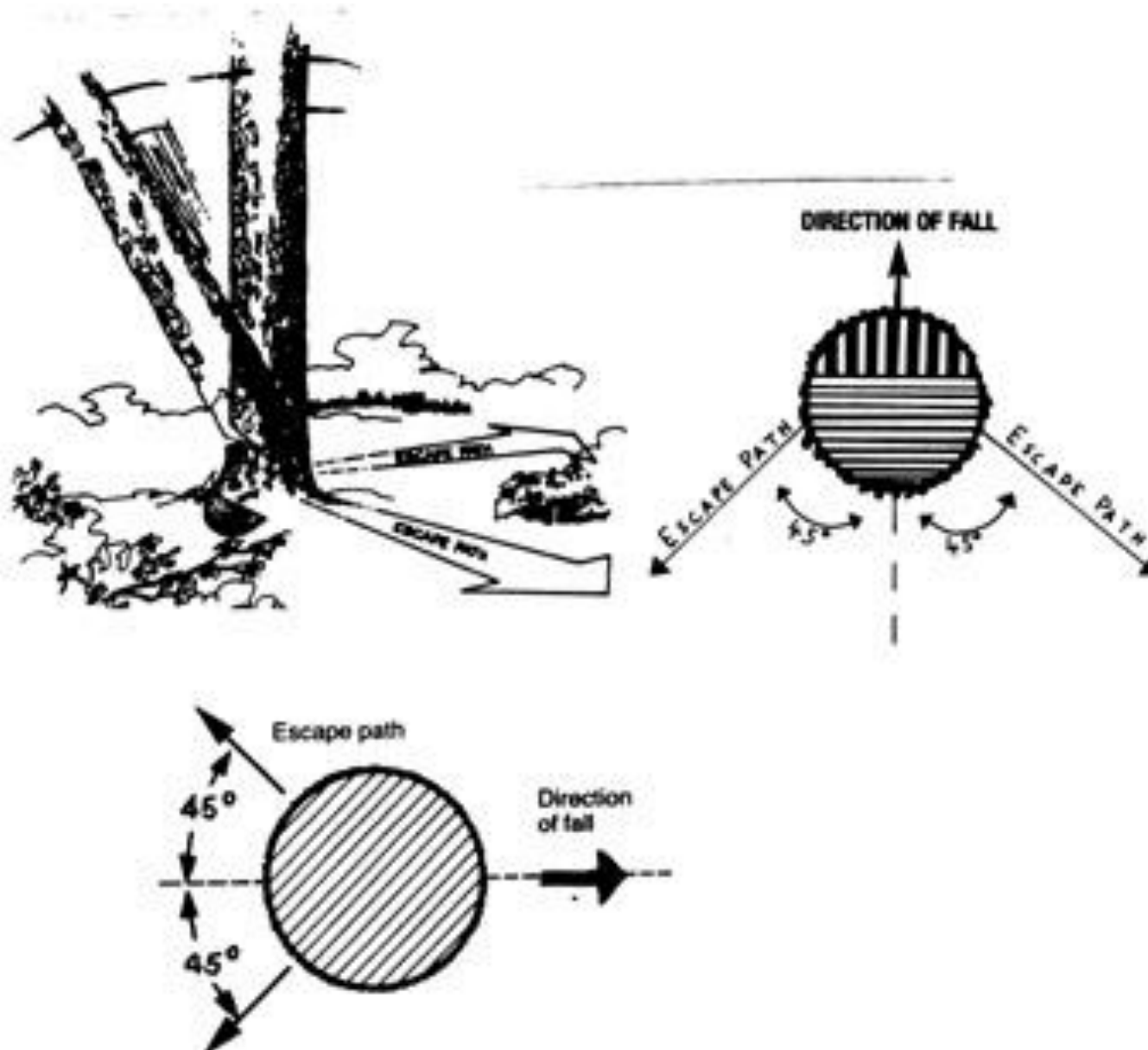
- Eliminate potential hazards:
 - Avoid overhead ropes, cables or electric lines.
 - Knock snow and ice off branches.
- Determine an appropriate felling direction.
- Plan and clear a retreat path.

Felling Trees Safely



1. Eliminate potential hazards

- Work so that trees cannot fall into the workspace of another worker. Workers should be more than two tree lengths apart.
- Avoid overhead ropes, cables or electric lines.
- Knock snow and ice off branches.



2. Determine an appropriate felling direction.
3. Plan and clear a retreat path.

Say: Now let's talk about the things the employer should have in place. I am going to divide you into groups of 4-5 people. You will pretend to be Pablo's employer. Your job is to prepare a good safety plan that will keep your employees from getting hurt. For example, what training is needed? What about the equipment? Think about all the ways chainsaws can injure you. What would you want the safety rules to be?

[Decide how many groups you will want, and ask for a volunteer writer for each group.]

Ask: Can I have __# volunteers, to write down the ideas for your group? You will have about 10 or 15 minutes to talk in your small group about your chainsaw safety plan. The group should decide on at least 5 things that you think should be part of the plan. The volunteer writer should write these down.

Divide the participants into groups. Give them 10-15 minutes to discuss their safety plan ideas.

Say: Let's come back together. I will ask each group for one idea, and write notes on this flipchart to remind us what they were.

Ask for an idea from the first group. On a large flip chart, write down just a couple words that capture the idea, like "training on using saw safely". Ask if any other groups had ideas about training. Write them down. Ask a new group for a new idea. Continue until all the ideas are written down.

Then flip to the next page to see if they want to add anything from our list to their list.

Chainsaw Safety Plan

Health and Safety Plan

Chainsaw Work

Training: Every worker should have training on.....

Equipment:

Safety Rules:.....

Other:....

Ask: Is there anything on this list that you didn't include? Would you want to add it to your plan? Why or why not?

Let participants discuss this for a few minutes.

Ask: What are the most important things on this list? If Pablo's employer is not providing _____ (one of the things they select as most important, for example "safe equipment"), what should Pablo do?

Say: Remember, the employer is required to provide all protective equipment except for safety shoes, which employees usually must purchase themselves.

Let a few participants share their answers. If they say "there is nothing he can do" ask:

Is there anything that you think he and his co-workers *could* ask for? What? How should they do this?

Note to promotora: There is no "correct" answer to this. See how the participants respond, and write down their ideas.

Chainsaw Safety Plan

OSHA requires employers to assure that their employees are able to safely do their work. For chainsaw work, this should include:

1. Training

- How to use the saw safely (before, during)
- How to use the protective gear properly
- What are the emergency and first aid procedures?
- Other safety policies (breaks, communication)

2. Equipment (quality and care)

- Provide well-maintained saws with kickback protections
- Provide proper fuel containers (less than 5 gallons)
- Provide time for equipment checks (daily checklist; weekly checklist)

3. Personal Protective Equipment

- Provide the following to all employees: hearing protection, hard hats, safety glasses, chaps, gloves

4. Other safety policies

- Provide breaks (required: 10 minutes every 4 hours)
- Supervisors, co-workers watch for fatigue.
- Set safe distance between cutters for each job site (twice the height of any trees to be felled).
- Be aware of co-workers. Know when to communicate.

5. Emergency response

- Keep first aid supplies with crew.
- Have a plan for what to do in all likely kinds of emergencies.
- Be sure the office has written directions to the jobsite.
- Make sure all workers are trained in first aid within 6 months of being hired.

Say: These are some steps to remember, if you do decide to speak up about something.

Review steps listed on flipchart.

Say: Today we also talked about things Pablo needs to do himself, to stay safe.

Ask: Is there anything you plan to do differently now yourself, after hearing suggestions from everyone here?

Write these down on a flipchart paper, and save as part of your evaluation materials.

Tips for problem-solving at work

1. **Make a plan. Decide what you are trying to achieve.**
2. **What other help is available?**
3. **What are the obstacles to getting what you think is needed?**
4. **Talk to the boss or supervisor.**
 - Who is the best person to talk to?
 - Do not go alone.
 - Explain how your solution will benefit the employer.
 - Write down what happened.
5. **If the problem does not get solved, contact OSHA or other organizations for assistance.**



Say: If you look in your booklet, you will find fact sheets with the information we have talked about today.

Point out the page numbers on the flipchart.

Say: Thank you. We would like to ask you to fill out a short evaluation form to see what you think you learned, and what you thought of the training. I will read each question out loud, and if there are answers to choose from, I will read those as well. You do NOT need to put your name on this.

Pass out the worker evaluation for this lesson. Ask participants to write the date and training location. Then read each question, if there are answers to choose from, read those as well.

Resources in your booklet

(Staying safe at work and your rights on the job)

Working safely with chainsawpage 10

**How can workers exercise their right to a safe
workplace? pages 8-9**

Acknowledgments

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Credits

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Illustration: http://autonopedia.org/crafts_and_technology/Tools/Chainsaw_Guide/Index-Chainsaw_guide.htm