

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

Outdoor work



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 and their families about the hazards that come with working outdoors. 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 what can hurt them or make them sick while working outdoors. They will know:

- How working in a hot or cold environment can harm them
- What symptoms of heat illness to look out for
- How to protect themselves from heat stress, and
- What to do to protect themselves from other hazards in the outdoor environment such as wild animals, insects and poison oak.

Materials needed for this session

You will need blank paper and pens for writing (in case participants want to write down notes), prizes for game winners (optional), and 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, Pre-test and Introduction	25 minutes
Rogelio's Story	10 minutes
What does heat illness feel like?	15 minutes
How can you prevent heat illness?	20 minutes
Heat illness review	10 minutes
Other outdoor hazards	25 minutes
Wrap-up and Evaluation	15minutes

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 them 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 some of the hazards you face working outside. These include heat, cold, poison oak, wild animals and insect bites or stings. This training will help you learn about these different hazards and what to do about them. We are going to start with a few questions.

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

Ask: What are some of the other hazards of working outside you can think of?

Let people respond.

- Fire danger
- Drinking water from streams
- Slip, trip and fall hazards

Say: We will talk about many of these today. Let’s start by talking about extreme temperatures. How can working in the cold harm you?

- You can get hypothermia (body temperature drops too low). This can make you confused, and you can lose consciousness.
- Numbness or swelling in feet (if wet and cold for a long time), called “trench foot.”
- Damaged, itchy skin, exposed repeatedly to cold temperatures (called “chilblains”)
- When lighting fires to get warm, fuel can catch on fire if it is too close, or you pour it directly on the fire.

Ask: What are things you can do to protect yourself from the cold?

- Wear layers of clothing.
- Wear gloves and hats.
- Wear waterproof boots.
- Take breaks.
- Be sure to remove layers of clothing as you get warmer.
- If you get sweaty, be sure to put warm layers of clothing back on when you stop working, or take a break.

Outdoor work



Say: Now let's spend some time talking about working in the heat. Heat is a common hazard for those who work outdoors like you do.

Ask: Have any of you ever gotten sick while working in the heat, or know someone who has? What happened?

Let a couple of people share their experiences.

Say: Heat illness can be a matter of life and death. Many workers have died from it. Let's talk about the symptoms of heat illness by listening to a story about a worker named Rogelio.

Rogelio is a new member of the crew. On his second day, it was 90 degrees out, and he worked hard for long periods of time without a break. In the early afternoon, his co-worker, Julio, looked over and saw that Rogelio was sweating a lot and was acting strangely. Julio asked Rogelio what was going on. Rogelio told Julio he had a slight headache and felt dizzy.

Ask: Did Rogelio have heat illness? Why?

Yes – he was sweating, tired, had a headache and felt dizzy. These are signs of heat illness.

Ask: Why do you think Rogelio got sick?

- Rogelio wasn't used to working in the heat.
- It was hot and sunny
- Working outdoors in hot weather, being in the sun, and doing physical work can cause your body to overheat.

How does heat affect you?



Say: We discussed the symptoms that Rogelio had: sweating, feeling tired, having a headache.

Ask: What are some other symptoms of heat illness?

- You can get **heat exhaustion** -- heavy sweating, cramps, rapid pulse, headache, nausea, vomiting.
- You can also get **heat stroke** – hot, dry skin OR profuse sweating; high body temperature; disorientation; fainting; confusion; slurred speech. Victims of heat stroke are often confused and may pass out.

Add the following points. Say:

People react differently. You may get most of the symptoms or some of them.

Since early symptoms (headache, nausea, etc.) are not clearly visible to others, it's important that you report them right away.

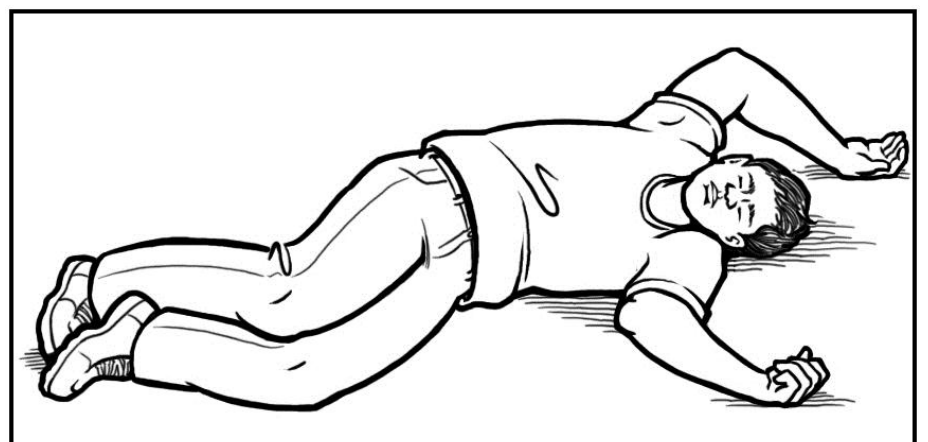
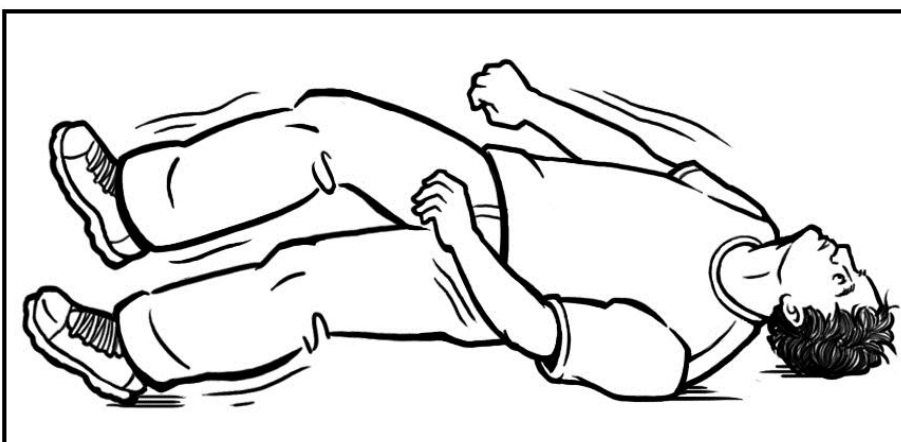
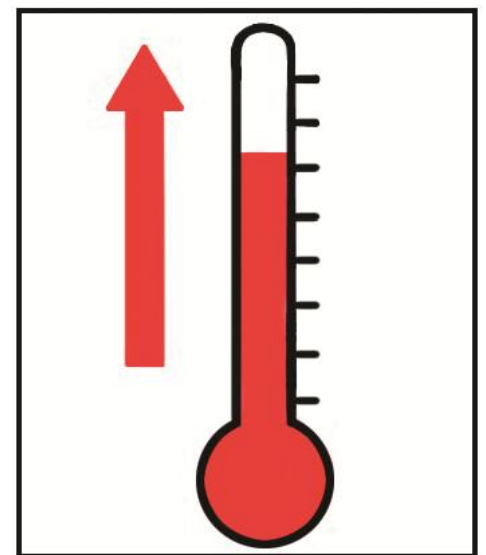
Otherwise you could develop some of the more serious health effects of heat, including death.

What does heat illness feel like?

Heat Exhaustion



Heat Stroke



Say: Heat illness can affect all of us, but some people are at greater risk.

Ask: What do you think would put a person at greater risk?

Let people respond, then make sure the following points are made.

- You are working during a heat wave.
- You are new to working outdoors.
- You had some heat-related symptoms the day before.
- You are not physically fit or are overweight.
- You drink alcohol or take drugs (illegal drugs or prescription medication).
- You wear dark, heavy or tight clothing.

Add the following points. Say:

Some health conditions put you at greater risk. These include diabetes, kidney and heart problems, pregnancy and being overweight.

If you have these health conditions, it would be good to talk to your doctor about the work you do and ask if there are any specific precautions you need to take.

Heat Illness Can Affect All of Us!



Say: When you work outdoors doing physical work, you will feel sweaty and tired. During your shift, you need to drink water and rest in the shade to prevent heat problems. Drinking water, taking breaks, and resting in the shade need to be built into your work day.

After you rest, if you feel better, you can go back to work. If you don't feel better, talk to your supervisor right away.

Ask: How much water should you drink in a day?

- Employers should supply enough water for each of you to drink about 8 cones (4 cups) every hour.
- People worry that if they drink a lot of water, they will have to go to the bathroom more often. In fact, they will mostly sweat it off.

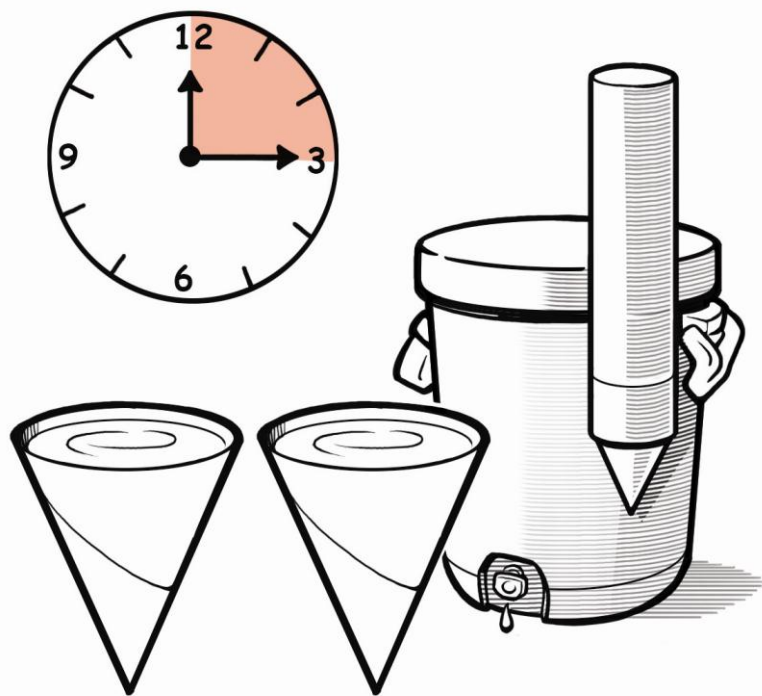
Say: It is better to drink small amounts of water often -- like a couple of cones every 15 minutes.

Avoid drinks like sodas, coffee, energy drinks or alcoholic drinks. They dehydrate you and make it more dangerous to work in the heat.

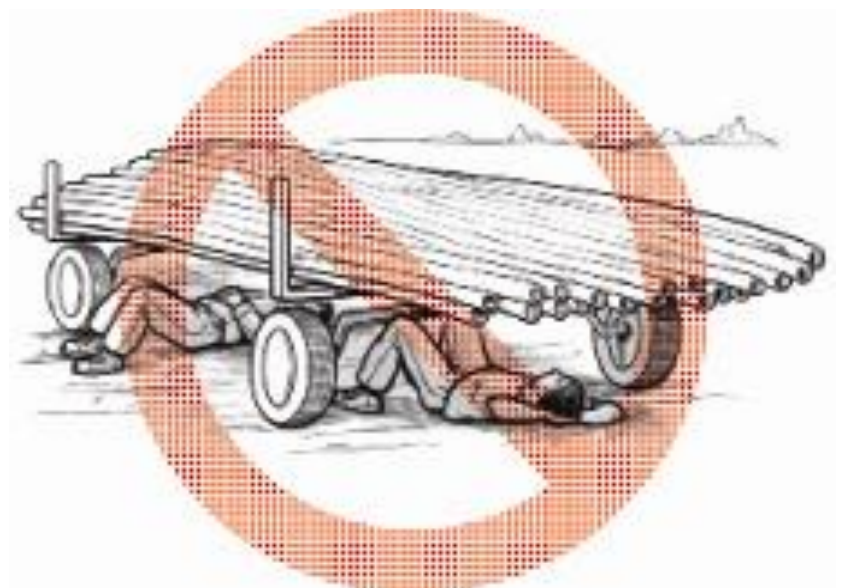
Once the temperature exceeds 85 degrees, it is important to really pay attention to how you are feeling. Take frequent breaks in the shade and drink water at least every 15 minutes.

Heat illness can be prevented!

Drink water even if you aren't thirsty—every 15 minutes.



Rest in the shade.



Say: Two more heat safety tips are wearing light-colored clothing and watching out for each other.

Ask: Why is it good to wear a hat and light-colored clothing?

- They help block the sun.
- Lighter colors help you stay cooler in the sun.

Say: Oregon OSHA also requires forest workers to wear something on the upper body that is a highly visible color, like the bright orange vests you may wear.

Add the following points. Say:

- Watch out for each other. Be alert to unusual behavior. If your co-workers seem to be acting strangely, they may have heat stroke.
- Not being used to the heat is a big problem. If you haven't worked in the heat for a week or more, your body needs time to adjust. You will need to take more breaks and do less strenuous work during your first few weeks on the job.

Heat illness can be prevented!

Wear a hard hat and light-colored clothing.



Watch out for each other.



Say: Now we are going to talk about what to do if someone gets sick from heat.

Ask: Let's say there is a worker who has signs of heat illness. What do you think you should do?

- Notify the supervisor. The worker needs immediate medical attention.
- Start providing first aid while you wait for the ambulance to arrive.
- Move the person to cool off in the shade.
- Little by little, give him water (as long as he is not vomiting).
- Loosen his clothing.
- Help cool him. Fan him, put ice packs on his groin and underarms, or soak his clothing with cool water.

Practice: Ask the group to act out the steps they would follow. Pick one person to be a person who has heat illness, and explain the activity.

Say: Let's practice what to do if someone has symptoms. This way if an emergency does occur, you are more likely to remember the steps.

Let's say you are working with (fill in the name of the volunteer) and you notice he/she is very sweaty and tired, and he/she looks confused and can't seem to concentrate on work. Show me what you would do.

Check to see that they follow the steps in the box above.

What if someone gets sick?



**Workers do not pay for
ambulances or medical care.**

Say: We started this training discussing Rogelio's story. To review what we've learned, let's remember his story and hear what happened next.

Rogelio is a new member of the crew. On his second day, it was 90 degrees out, and he worked hard for long periods of time without a break. In the early afternoon, his co-worker, Julio, looked over and saw that Rogelio was sweating a lot and was acting strangely. Julio asked Rogelio what was going on. Rogelio told Julio he had a slight headache and felt dizzy.

Julio called the crew leader. They gave him water and helped him sit down. Julio stayed with him while the crew leader called 911 for medical help. Rogelio recovered, but couldn't work for a few days. Later, he said he had wanted to show that he could work hard, and he didn't drink much water because he didn't feel thirsty.

Ask: What went well in this case to address heat illness?

- Julio knew the symptoms and called the crew leader.
- They called 911, gave him water, and helped him sit down to rest.
- Julio was watching out for his co-worker. He stayed with Rogelio while the crew leader made the call.

Ask: What went wrong?

- They didn't take him to shade to rest once he had symptoms.
- Rogelio hadn't drunk water. You shouldn't wait until you are thirsty.
- Rogelio wasn't used to working in the heat. He should have had less intense work until he got used to working in the heat.
- Rogelio wanted to prove he could work hard. He didn't report symptoms as soon as he felt them.

REVIEW



Show the flipchart page with the photos of hazards.

Say: Next we are going to talk about other hazards, besides heat and cold that you may face while working outside. We will play a game to see how much you already know about how to protect yourself from these other hazards.

I will divide you into teams. We will look at one hazard at a time. The teams will have one minute to come up with as many correct ways of protecting yourself from the hazard as you can during that time period.

At the end of one minute, each team will report on one protection they came up with. We will go around and give each team a chance to give a different answer until no one has any more answers. Each correct answer (protection) gets one point. I will keep track of the points. The team with the most points wins.

Ask the group if any of them would be willing to write down answers for their assigned team. Try to get 2 to 4 volunteers. Each volunteer writer will head up a team. Assign the rest of the trainees to a team. If no one volunteers, divide the group into 2 to 4 teams and ask the teams to remember their answers.

After each 1 minute round, bring the teams back together. Ask each team to give one answer to how to protect oneself from this hazard. Go to the next team and ask for one different answer. Continue asking each team for one answer until all answers have been given. Give one point for each correct answer. Make sure all the protections on the answer sheet are covered. For each round, start with a different team first.

What Should I Do?

Cougars



Rattlesnakes



Bears



Slip and Trip Hazards



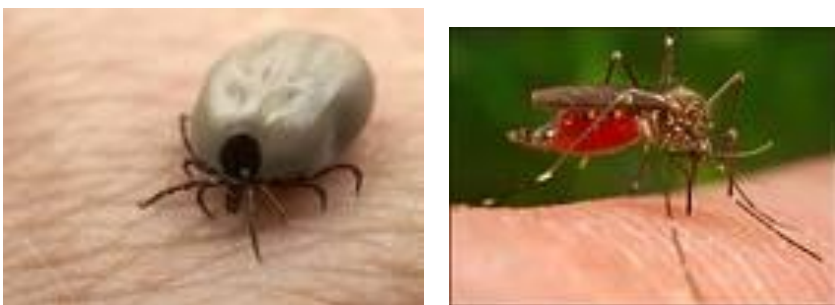
Drinking water from lakes or streams



Poison Oak



Ticks and Mosquitoes



Bees, Wasps and Hornets



Answers for promotoras:

Hazard	Protections
Cougars	<ul style="list-style-type: none"> • Move away, avoid direct eye contact, grab any weapon available such as a rock, and try to be as intimidating as possible.
Bears	<ul style="list-style-type: none"> • Make noise while you are working. If you see a bear, do not run. • Walk backwards slowly, away from the bear. The bear probably will do the same. • If the bear approaches, try to look as large as possible (move to higher ground, wave arms) and make noise to scare it away.
Rattlesnakes	<ul style="list-style-type: none"> • Learn what a rattlesnake looks and sounds like. They often will rattle a warning, but not always. • Watch where you walk and reach. Rattlesnakes like to hide around brush, logs, rocks, and are most active on warm days and summer evenings. • Step ON logs or rocks, rather than over, into the spot a snake may be hiding. • Wear sturdy boots and heavy, leather gloves. • If you see a rattlesnake, back away slowly. Do not make sudden moves. • If someone is bitten, help them remain calm. Get them to the hospital as quickly as possible. Bites are rarely fatal, but must be treated.
Drinking water from lakes or streams	<ul style="list-style-type: none"> • Do not drink untreated water from springs, stream, rivers, lakes, ponds or shallow wells, as it might be contaminated with animal feces. • Treat water from these sources with water purification tablets, or filter with appropriate filters. Employers are required by law to provide access to clean water.
Ticks and Mosquitoes (can carry diseases)	<ul style="list-style-type: none"> • Wear a hat and light-colored clothing (so ticks can be easily spotted). • Check skin and clothing for ticks daily. Check hair, underarms, and groin. • Apply mosquito repellents and minimize skin exposure by wearing long sleeve shirts. • Wash and dry work clothes using the “hot” settings to kill any ticks.
Bees, Wasps and Hornets	<ul style="list-style-type: none"> • Avoid perfumed soaps, shampoos and deodorants. • Remain calm and still if a stinging insect is flying around. (swatting may cause it to sting). • If attacked by several stinging insects, run to get away. • Workers with a history of severe allergic reactions to insect bites or stings should carry an epinephrine autoinjector and wear medical ID jewelry stating their allergy.
Slip and Trip hazards	<ul style="list-style-type: none"> • Avoid becoming overly tired or hurried. Pay attention to what you are doing. • Wear footwear with good traction, especially in slippery winter conditions. • Use 3-point contact when possible when getting in/out and on/off anything (boulders, logs, vehicles).
Poison oak	<ul style="list-style-type: none"> • Know what it looks like. Avoid touching it if possible. • Wear long sleeves, pants, and gloves if you will be working around it. • Wash your clothes right away if they have come in contact with the plant. The oils can get onto your clothes, and then onto you or family members who touch the clothes. • If poison oak leaves do brush against your skin, wash the area with lots of soap and water at the end of the day, or as soon as possible. You can also clean with “tecnu”, a product that can help remove the rash-causing oil, even without water. • Do not burn plants or brush piles that may have poison oak in them.

What Should I Do?

Cougars



Rattlesnakes



Bears



Slip and Trip Hazards



Drinking water from lakes or streams



Poison Oak



Ticks and Mosquitoes



Bees, Wasps and Hornets



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.

Ask: Is there anything you plan to do differently, after participating in this workshop?

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

Ask: Does anyone have suggestions for ways to share this information with others in the community?

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 in Hot Weather	page 12
Working in Cold Weather.....	page 13
Preventing Slips, Trips and Falls	page 14
Poison Oak and Poison Ivy.....	page 15
Wild Animals	page 16
Insect Bites and Stings	page 17
Drinking Water from Lakes or Streams.....	page 18

Acknowledgments

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Credits

Illustrations: Mary Ann Zapalac, for UC Berkeley Labor Occupational Health Program

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Photos:

Page 4: Lomakatsi Restoration Project

Photos on p. 20/22:

<http://true-wildlife.blogspot.com/2011/02/cougar.html>

http://www.fish.state.pa.us/water/amprep/snake/00snake_photos.htm

<http://stevengoddard.wordpress.com/2011/01/16/polar-bear-covered-with-crude-oil/>

http://www.mdvaden.com/poison_oak.shtml

<http://blog.ecosmart.com/index.php/2009/06/17/tick-control/>

<http://www.todayifoundout.com/index.php/2010/08/why-mosquito-bites-itch/>

<http://www.wild-facts.com/tag/honey-bee/>

<http://duncraft.atom5.com/how-keep-bees-out-of-3445.html>