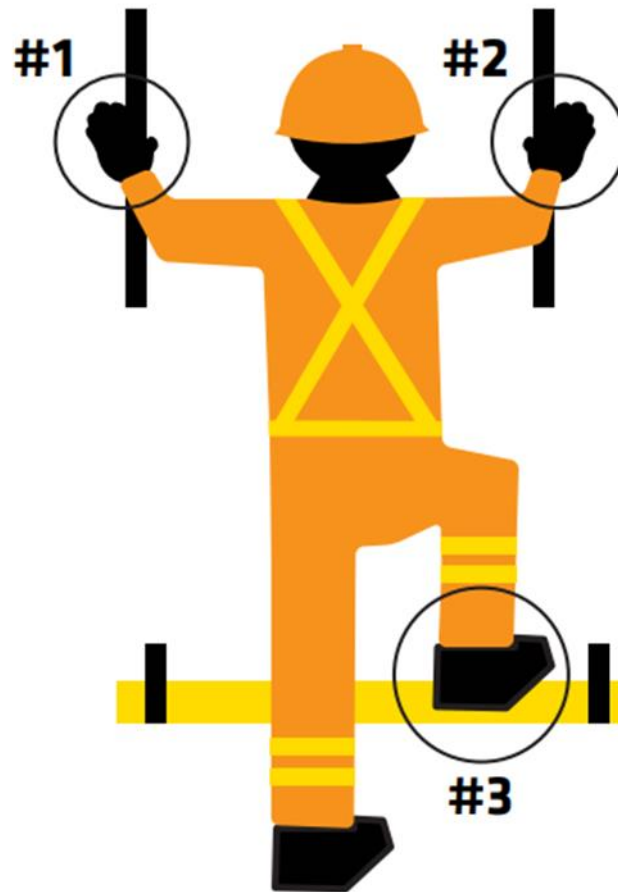




BC Forest Safety

Slips, Trips and Falls Resource Package



November 2023



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1. Overview

How to use this tool

- To enhance current injury prevention efforts within your organization
- To develop a slips, trips & falls prevention training program
- To develop a safety bulletin or internal training memo for posting
- To provide an educational component to crew safety meetings/tailgate meetings

Recommended delivery

- The slips trips and falls presentation can be presented to workers or used to build your knowledge as a safety leader.
- Injury prevention efforts are most successfully when targeted as part of a specific strategy – prioritize what injury types to focus on and provide support to workers, supervisors, first aid personnel and Joint Health & Safety Committee members to help reduce those target areas.

Suggested practices

- Orientation - During the orientation process workers should be introduced to information about how slips, trips and falls happen and the importance of self-care in reducing these types of injuries.
- Safety Bulletins/Alerts – You may wish to produce a Safety Alert or Bulletin for your company following a slip, trip or fall injury. This package may provide additional background information to include in the Alert.
- Crew Talks/Safety Meetings - Refresh and expand worker knowledge, A changes in terrain type, weather conditions or job tasks are great opportunities to remind workers of their slips, trips & falls awareness training during crew talks, company safety meetings or in printed company safety materials.
- On-site orientations/Visitor Orientations - Provide further information and training on moving safely through the bush or on the worksite at start-up safety meetings when establishing bush camps.
- Program Development – Management and/or the Joint Health & Safety Committee can use the information provided to further expand or develop in-house training programs.

2. Three Point Contact

Prevent slips, trips and falls with

3 POINT CONTACT

FOREST RELATED INDUSTRIES CLAIMS 2014-2018*

FOREST RELATED INDUSTRIES Serious Injury Claims 2014 - 2018



Falls from Elevation



Falls from Same Level

FOREST RELATED INDUSTRIES Claims Costs 2014 - 2018

Falls from Same Level

\$25.4
million



Falls from Elevation

\$41.7
million

Total Claims \$67.1 million

Many of the injuries sustained from falls happen when workers are entering or exiting a vehicle.

3 POINT CONTACT

On vehicle at all times: 2 feet + 1 hand or 2 hands + 1 foot



3 Point Contact

is a technique to help drivers and heavy equipment operators enter and exit vehicles SAFELY



Survey Results Show:

89% Drivers reported always or almost always exiting using 3 Point Contact

Observations Show:

21% Drivers observed using 3 Point Contact

50% Drivers held items while exiting vehicle

69% Drivers exited vehicle facing out

*Statistics from WorkSafeBC injury data

VIDEO – FPINNOVATIONS SAFELY ENTERING AND EXITING FOREST INDUSTRY MACHINES

[HTTPS://YOUTU.BE/AJY7XUUT3U0?SI=LLNVSHHKO2OZNYUS](https://youtu.be/AJY7XUUT3U0?SI=LLNVSHHKO2OZNYUS)



3. Workshop Materials

The following slides are from a Slips, Trips and Falls Workshop that was delivered by Dave Coates with ErgoRisk as a webinar. The recorded version of the webinar can be found here:

https://youtu.be/0hY_rNUY8Q?si=i9twCpxafEPN4p4T

Use these slides to learn more about how training workers to be industrial athletes can help prevent injuries from slips, trips and falls. These slides can also be delivered as part of an internal training session or safety meeting.



Walking in the Woods Slip, Trip, Fall Webinar

Workshop Outline

Safe Movement Principles

- a. Being a Good Industrial Athlete
- b. What are Musculoskeletal Injuries?
- c. Slip, Trip, Fall Risk Factors
- d. Practical Prevention Ideas



a. Being a Good Industrial Athlete

- Being a good Industrial Athlete means
 - Properly preparing for the activity (warm-up)
 - Having the required skills (safe movements)
 - Using the proper equipment
 - Dealing with aches and pains (discomfort)

a. Being a Good Industrial Athlete



b. What Are Musculoskeletal Injuries?

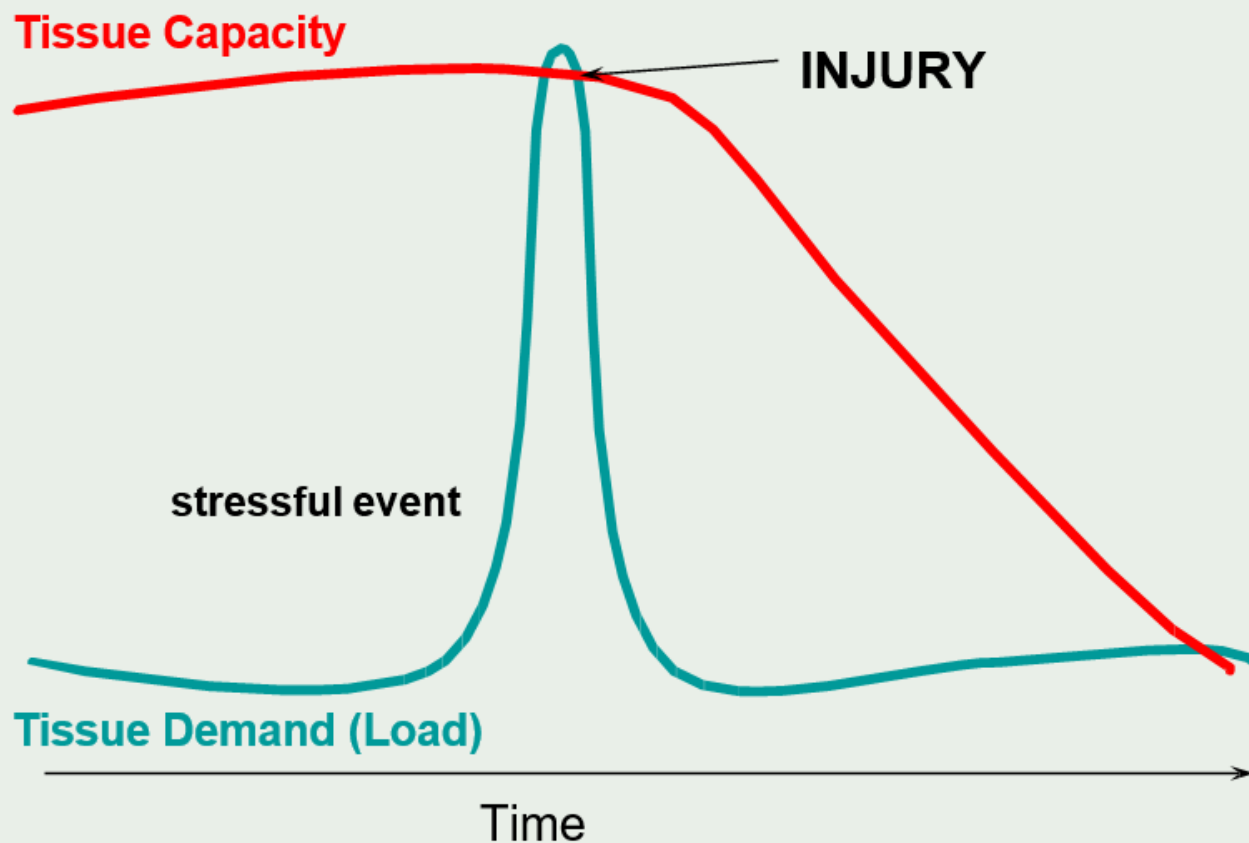
MSI = Musculoskeletal Injury: Disorders of the muscles, tendons, ligaments, bones / cartilage, nerves, blood vessels, and bursae.

TWO CATEGORIES:

- 1) Traumatic:** one time event that sends the soft tissue past its capacity, commonly referred to as: **"SPRAINS AND STRAINS"**
- 2) Overuse:** repeated minor traumas that build up over time (without proper healing) to predispose the affected soft tissues to injury (e.g., tendinitis).

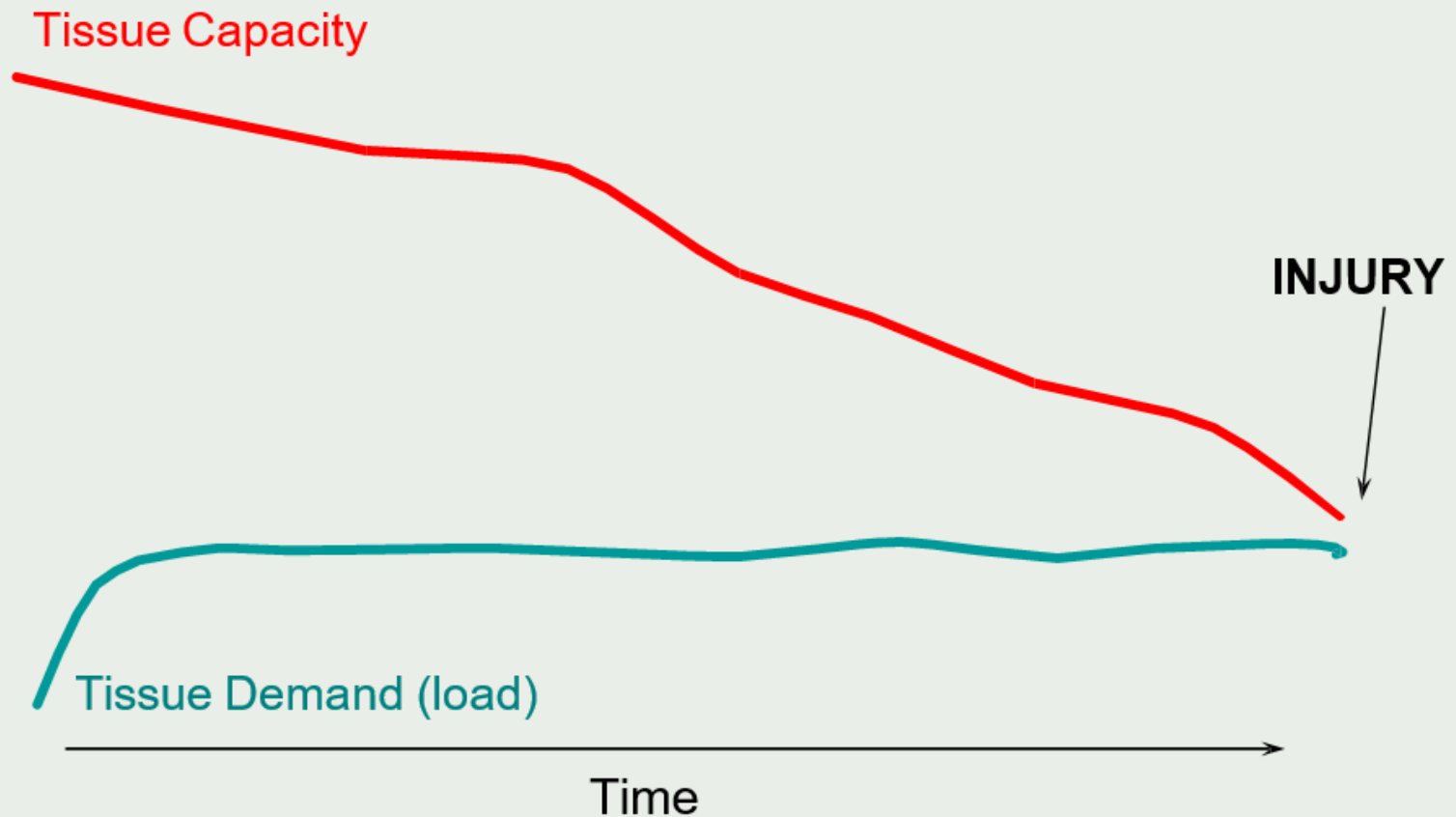
b. Mechanisms of MSI's

Traumatic - One Time Event Theory

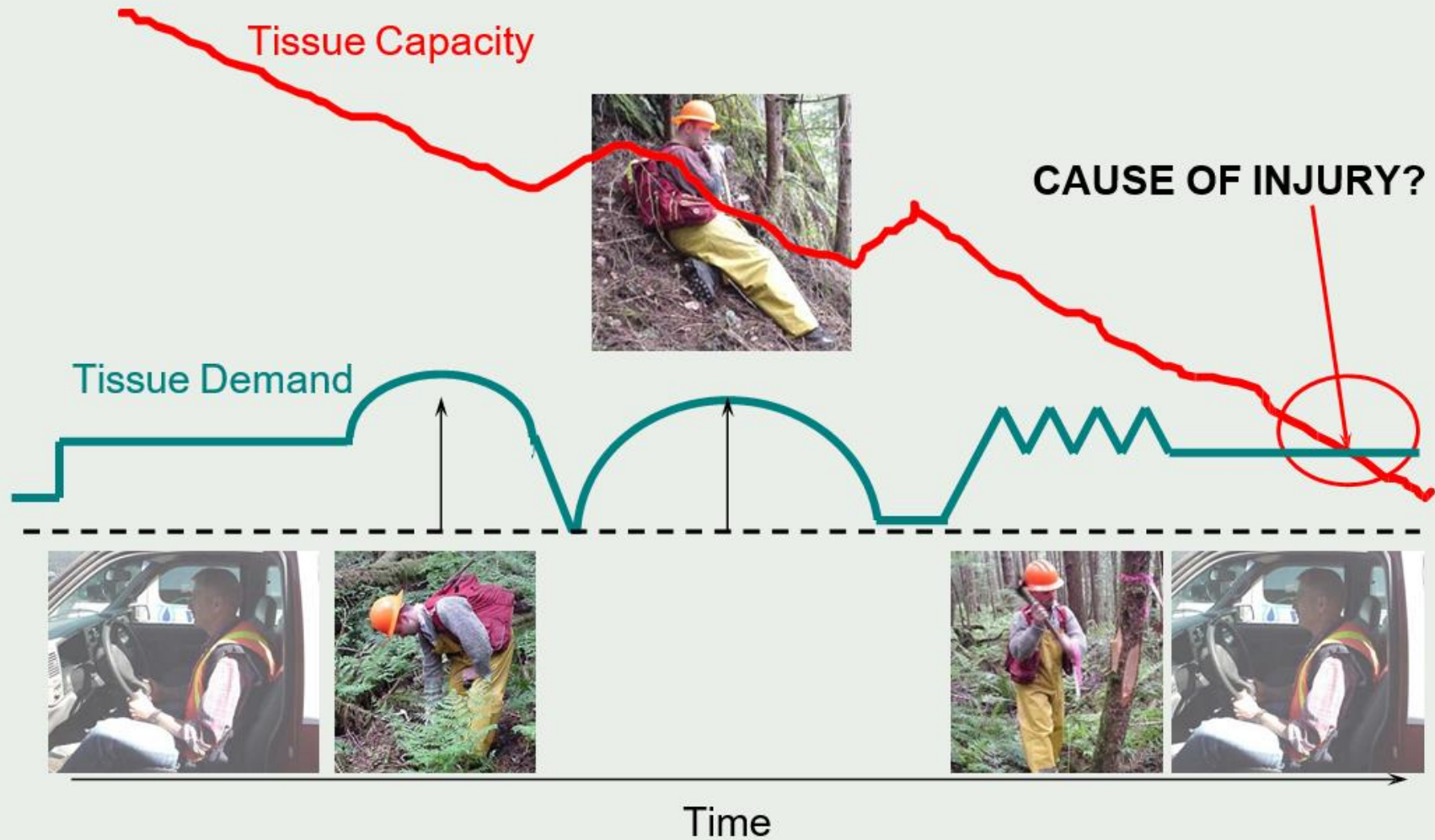


b. Mechanisms of MSI's

Overuse - Low Sustained Load Theory



b. Mechanisms of MSI's



c. Slip, Trip, Fall Risk Factors

- Workers need a combination of good muscle balance around the lower extremities – both in terms of strength and flexibility.
- Often our greatest movement risk is an imbalance around one of our joints that affects our dynamic stability.

c. Slip, Trip, Fall Risk Factors

- Environment – unstable and uneven surface
- PPE – appropriate footwear
- Personal Factors
 - Muscle imbalance – left/right, front/back, preferred (asymmetrical) movement pattern
 - Joint stiffness – creating increased mobility somewhere else

d. Practical Prevention Ideas

PPE & Risk Assessment

- Ensure your footwear supports your feet properly.
 - Appropriate tread
 - Secure upper
- Carry loads close to your body and secured to avoid unexpected weight movement.
 - Proper vest, backpack or other
- Continuously assess the terrain and make appropriate choices.
 - Another person's trail may not be safe for you

d. Practical Prevention Ideas

Safe Movement Habits.

- Learn how to move your body to minimize wear and tear (e.g. do not jump).
- Warm-up and stretch to prepare your body for activity.
- Incorporate lower body stabilization exercises into your regular routine.
- Practice specific trunk (core) exercises to help support the low back.

d. Practical Prevention Ideas

Tools.

- Warm-up program – handout and videos.
- Posture and Movement Improvement (PMI) preparation exercises – booklet and videos.
- Observations
 - Are people warmed up and prepared for activity?
 - Are worker's boots in good repair with adequate ankle support?

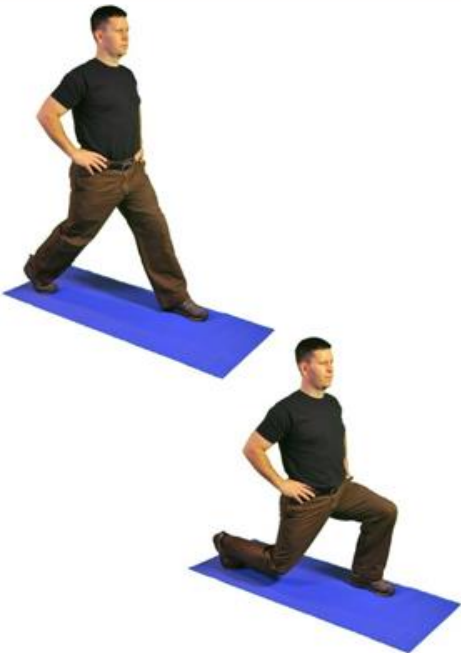
d. Practical Prevention Ideas

- Warm-up program – handout and videos.

Goal		Activate and warm-up the body!	
1		2	
5s 6x		3s 5x	
		3	
		15x	
Core Push-Pulls Cycle six (6) times between pulling apart and pushing in motions with the hands while doing the opposite force direction at your feet. Apply the forces for five (5) seconds before reversing. This will activate your deep low back stabilization muscles .		Back Extensions Place your hands in your low back and gently extend backwards holding the extended position for three (3) seconds, then return to normal upright standing. Repeat this exercise five (5) times.	
		Power Squats Repeat fifteen (15) consecutive Power Squats. While keeping your head and chest up, reach forward while sitting back keeping heels on the ground and your lower legs vertical.	

d. Practical Prevention Ideas

- Posture and Movement Improvement (PMI) preparation exercises – booklet and videos.

Static Lunges	What is it?
	<p>We need dynamic stability through each leg, especially when walking on uneven terrain. Static lunges help strengthen leg and hip muscles as well as improve balance and stability.</p>
	How do you Perform it Safely?
	<p>Stand with feet shoulder width apart and hands on your hips, then take a step forward. Maintain the wide staggered stance position and a tall upper body position, then lower your body towards the floor keeping your front foot planted on the ground – only the rear heel can lift off the floor.</p> <p>Repeat 10 times, then repeat on the other side.</p>

Workshop Summary

- Education and Training – warm-ups, safe movements, capacity v. demand.
- Safe Workplace – very difficult to control.
- Safety Leadership – promote principles of safe movement, ensure appropriate footwear, encourage proactive discomfort management.
- Discomfort Management – use the provided exercises and ensure workers access help in a timely manner to keep their capacity high.



Workshop Summary

- Ultimately, it is each person's responsibility to apply their knowledge to keep themselves safe.
- In the field, you can't control the ground conditions, but you can make good choices to minimize potential risks and ensure you are well prepared for the challenges.



BC Forest Safety

4. Pre-Work Warm-up Instructions

November 2023



General Pre-Work Warm-up

p1

Why?

A proper warm up before any physical activity increases your heart rate, body temperature and blood supply to improve flexibility, decrease muscle stiffness, soreness and the potential for injury.

Quick Tips

- Do not do a quick, hard movement of the muscle... DO NOT BOUNCE!
- Continue breathing.
- You may experience mild stiffness or soreness when starting a new stretch or movement.
- If you feel any sharp pains, stop the stretch and seek qualified advice.

Goal

Activate and warm-up the body!

1



5s

6x

2



3s

5x

3



15x

Core Push-Pulls

Cycle six (6) times between pulling apart and pushing in motions with the hands while doing the opposite force direction at your feet. Apply the forces for five (5) seconds before reversing. This will activate your deep low back stabilization muscles.

Back Extensions

Place your hands in your low back and gently extend backwards holding the extended position for three (3) seconds, then return to normal upright standing. Repeat this exercise five (5) times.

Power Squats

Repeat fifteen (15) consecutive Power Squats. While keeping your head and chest up, reach forward while sitting back keeping heels on the ground and your lower legs vertical.

?

If you have any questions about your ability to perform an exercise, check with your doctor.

?

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4
10s
2x

Groin Stretch

Extend one leg out to the side with your weight over your bent knee. Bend forward through the hips with head and chest up. Feel the stretch on the inner thigh. Slowly progress the stretch for ten (10) seconds,



5
10s
2x

Reach Out & Over

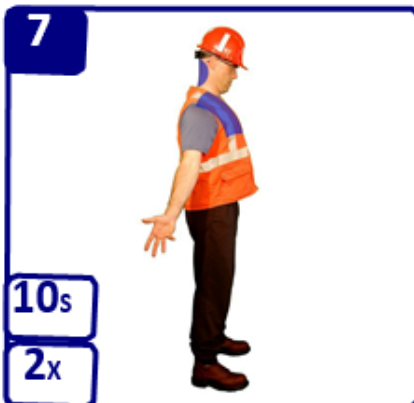
While keeping your back heel on the ground, take a large step forward and reach out and across your body as far as you can. Hold this position for ten (10) seconds, alternate twice on each side.



6
10x

Shoulder Shrugs

Do ten (10) full range circular shrugs forward and ten (10) backward.



7
10s
2x

Anti-Slouch Stretch

Turn your arms out so your thumbs point back. Squeeze your shoulders together. Gently reach back and while you extend the crown of your head up. Hold for ten (10) seconds, relax and repeat once.



8
10x 2x

Deep Forearm Massage

Grasp forearm muscle with a firm grip and repeat ten (10) rotational movements as if throttling a motorcycle. Repeat on the opposite forearm. Alternate twice on each side.



9
6s
3x

Active Forearm Stretch

Reach down with both hands/wrists and hold for six (6) seconds followed by extending up and down holding for six (6) seconds. Repeat this routine three (3) times. Shake arms out after stretching.

? If you have any questions about your ability to perform an exercise, check with your doctor. ?

5. Posture and Movement Improvement

Posture and Movement Improvement

p1

Modified Wall Squat



A caution.

IF YOU HAVE PAIN in your knees, kneecaps THEN slide up the wall a bit. Feet, knees and hips stay straight and in -line, do not flare out or let knees

What is it?

The Modified Wall Squat is a leg exercise that will help you activate your quadriceps muscles, stabilize your hip joints and mobilize your sacroiliac joints. It is necessary to perform with the hips, middle of the knee cap and middle of the foot aligned in a straight line (good alignment) to focus the activity in your quadriceps muscles.

How do you Perform it Safely?

Stand against the wall with the small of the back and the hips pressing against the wall. Place your feet hip width apart and far enough away from the wall so that your knees are behind your ankles when you lower down the wall. Bend the knees (less than 90°) and lower your body down the wall, then push through your legs to flatten the low back against the wall.

Keep pressing in to the wall for 30 seconds.

Build up to a 1 minute hold.

Bridge with Adduction



What is it?

Let's wake up your major hip muscles, initiate your core muscles, and balance the inner and outer muscles of the pelvis! The BRIDGE with ADDUCTION exercise will help develop coordinated movement through your hips and spine, while strengthening and stabilizing with your core muscles.

How do you Perform it Safely?

Lie on your back with your knees bent as much as possible, and your arms straight, palms up on the floor. Place a ball (or pillow) between your knees and place your feet slightly apart, but less than shoulder width. Squeeze the ball and then lift your buttocks off the floor.

Hold for 5 seconds and repeat 10x.

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Plank Exercise



What is it?

You will strengthen the abdominals and shoulders stabilizers while maintaining a neutral spine position throughout. Proper shoulder joint and shoulder blade position is important for proper core activation, and leads to good mechanics in throwing athletes and job tasks working with your arms.

How do you Perform it Safely?

Start on your hands and knees, then place your elbows on the floor directly below your shoulders. Hover your body over the floor while maintaining a neutral spine.

Start with 5 second holds and 6 repetitions, then build to 10 second holds.

Build to hold the position 2 x 30 seconds, then to 1 x 60 sec.

Combined Spinal Rotation



What is it?

A simple yet effective exercise to improve your spine movement and build your hips and shoulders stabilizers. Activating all postural muscles from the shoulders down to the hips. Improve coordination and stability in the hips and shoulders, and improve mobility of the spine.

How do you Perform it Safely?

Get on your hands and knees (the hands should be directly under the shoulders and the knees under the hips). Smoothly round up the back and curl the head under, then smoothly sway the back down as the head looks up. Keep your arms straight and do not sway your hips forward and backward.

Repeat both movements 10x.

Leg Lock Bridge



What is it?

This exercise helps isolate the muscles required for active hip extension of one leg while training complimentary mobility of the other leg. This sequencing is important for dynamic stabilizing while walking.

How do you Perform it Safely?

Lie on your back, knees bent, feet together. Bring one knee to chest and hold, then lift bum by pushing through foot on floor. Do not let knee come away from the chest as you lift. **Repeat 10x both sides.**

Static Lunges



What is it?

We need dynamic stability through each leg, especially when walking on uneven terrain. Static lunges help strengthen leg and hip muscles as well as improve balance and stability.

How do you Perform it Safely?

Stand with feet shoulder width apart and hands on your hips, then take a step forward. Maintain the wide staggered stance position and a tall upper body position, then lower your body towards the floor keeping your front foot planted on the ground – only the rear heel can lift off the floor.

Repeat 10 times, then repeat on the other side.

Plank Exercise



What is it?

You will strengthen quadratus lumborum, transverse abdominus and abdominal obliques as spine stabilizers but minimize the load on the spine. Maintaining a neutral spine and proper combinations of muscle recruitment will ensure spinal stability.

How do you Perform it Safely?

Lie on your side supported by the elbow with your hips and knees quite bent. Move into the sideplank position with an accordion-like unfolding of the hips, all the time keeping a braced neutral spine. **Start with 5 second holds and 10 repetitions**, then build to 1x30 seconds.

Combined Spinal Rotation



What is it?

This exercise is a MUST DO to improve your strength and coordination by isolating active thoracic spine mobility and activating shoulder girdle stability. It is a great combination exercise to get your spine and rib cage moving better.

How do you Perform it Safely?

In quadrupedal position with one hand behind-head on the base of the neck. Flex the spine by bringing your elbow down and across towards the opposite knee, hold for 1 second then extend the spine by bringing your elbow out and up towards the ceiling, hold for 1 second, then bring it back to the starting position. The non-moving arm should be soft at the elbow with no movement during the exercise and there should be no movement at the hips.

Repeat 10 times on each side.

6. Crew Talk

OVER ▶

SLIPS, TRIPS & FALLS

1 INSPECT: KEEP FLOORS CLEAN & DRY AND FREE OF CLUTTER

2 BE PREPARED: PAY ATTENTION & TAKE YOUR TIME

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Safety is good business

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PREVENT SLIPS, TRIPS & FALLS WHAT YOU NEED TO KNOW



1. INSPECT: KEEP FLOORS CLEAN & DRY AND FREE OF CLUTTER

- CLEAN UP ALL SPILLS IMMEDIATELY. IF YOU CAN'T CLEAN IT UP IMMEDIATELY, MARK SPILLS AND WET AREAS WITH WARNING SIGNS OR PUT UP A BARRICADE
- SPREAD GREASE-ABSORBENT COMPOUND ON OILY SURFACES
- ELIMINATE CORDS, CABLES AND HOSES THAT GO ACROSS WALKWAYS - IF THAT'S NOT POSSIBLE, COVER THEM
- SECURE MATS THAT DON'T LIE FLAT TO PREVENT A TRIPPING HAZARD
- IN WINTER CONDITIONS, CLEAR SNOW & ICE FROM OUTDOOR WALKWAYS AND DOORWAYS

2. BE PREPARED: PAY ATTENTION & TAKE YOUR TIME

- WEAR SHOES WITH GOOD TRACTION AND KEEP LACES TIED
- NEVER CARRY OR PUSH MATERIAL THAT COULD BLOCK YOUR VISION
- STAY ON DESIGNATED WALKWAYS AND DON'T TAKE SHORTCUTS
- AVOID DISTRACTIONS, LIKE YOUR CELL PHONE, WHILE WALKING
- ALWAYS USE HAND RAILS WHEN GOING UP AND DOWN THE STAIRS
- KEEP WORK AREAS WELL-LIT AND REPLACE BURNT OUT LIGHT BULBS
- CLOSE DOORS, DRAWERS AND CABINETS
- COVER ALL FLOOR OPENINGS OR PROTECT THEM WITH GUARDRAILS
- TAKE YOUR TIME & PAY ATTENTION TO WHERE YOU ARE GOING
- MAKE WIDE TURNS WHEN WALKING AROUND CORNERS
- ADJUST YOUR STRIDE TO A PACE SUITABLE FOR THE WALKING SURFACE & THE TASKS YOU ARE DOING



Scan the QR Code with your mobile device's camera to subscribe and access BCFSC Crew Talks

7. Safety Alerts



INDUSTRY

SAFETY ALERT

Walking in the woods: Keep it injury-free!

August 2023 – Southern Interior Region

Details: While locating a fireguard line an experienced forester slipped while walking through an older plantation and fractured an ankle.

The terrain was gentle but was on the north shaded side of a steep slope.

The weather was sunny and dry but heavy dew overnight had not dried, thus creating slippery conditions in the area.

Learnings & Suggestions: Be cognitive of the conditions in which you are walking and pay extra attention when there is a higher possibility of the ground being wet/slippery. It might be dry during the day, but the morning can have dew.

- Use RADAR as a tool to assess your surroundings and changes in worksite conditions
- Use a walking stick as an aid and caulk boots if necessary
- Whenever working alone carry reliable two way communication.

This information shared by Gorman Bros. Lumber Ltd, Westbank

Safety Alert



Subject:	Walking on Logs
Date:	June 2023



Incident Summary:	<p>Incident 1: Worker was walking on a log deck and the deck shifted; the operator subsequently fell into a hole in the deck. Then two logs rolled onto the worker at the waist and pinned them resulting in a broken pelvis.</p> <p>Incident 2: Worker was walking on the Dryland sort deck and stepped onto a 12-inch fir log rather than walking around. They subsequently slipped and fell on their extended right hand, fracturing their wrist.</p>
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Potential Hazards:	<ul style="list-style-type: none"> ➤ Crush injury from logs. ➤ Injury from fall off log. 	Photo:	
---------------------------	--	---------------	--

Preventative Actions:	<ul style="list-style-type: none"> ➤ Review incident with all workers. ➤ Avoid walking on logs unless a requirement of the job. ➤ A risk assessment is always required when walking on a single log or a deck of logs. Be aware of changing log deck stability. ➤ Caulk boots are to be always worn when walking on logs as per WorkSafe BC Regulation 8(23)(2)
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SAFETY ALERT

MOSAIC
FOREST MANAGEMENT

Timberland Manager for  **ISLAND**
TIMBERLANDS

SUBJECT: Slips/Trips/Falls

DATE: June 10, 2021

Potential Hazards

Forest field workers are exposed to a multitude of potential hazards on a daily basis when working and walking in the woods. Some known hazards to be mindful of include:

- dense vegetation obscuring foot placement
- loose debris that can slide or roll
- rotten logs that can't support much weight
- steeply inclined logs with loose bark
- rain on sap logs in spring
- steep slopes, rock bluffs or gullies
- recent slash with branches or trip hazards
- berry bushes that can catch and trip you
- dull caulks in your boots
- improper boots for the job with no support

Incident Summary

We are starting to see an increase in slips and falls that are resulting in injuries.

Over the last few weeks we have had three recorded incidents, these range from over a dozen stitches in one incident, to a lost time for a seriously sprained ankle from walking on an old moss covered road grade.

In some cases the hazards related to slippery bark from sap running or rain have been a factor, but in other cases it has been caused from not being able to see the hazard under the feet in front of you.

Preventative Actions

In order to prevent injuries from slips/trips/falls in the field it is important to:

- ensure you are mentally and physically capable of performing your field duties everyday
- wear proper boots that are in good repair with adequate caulks or support as needed
- be aware of your footing at all times, if you cant see where your foot is going don't step
- maintain 3 point contact whenever possible to do so
- don't take unnecessary risks, if you have to take a longer safer route, do it
- choose a route that is comfortable to you, don't follow someone else if you are uncomfortable
- work at a steady pace, avoid rushing as it usually results in falling down

8. Stickers and Posters

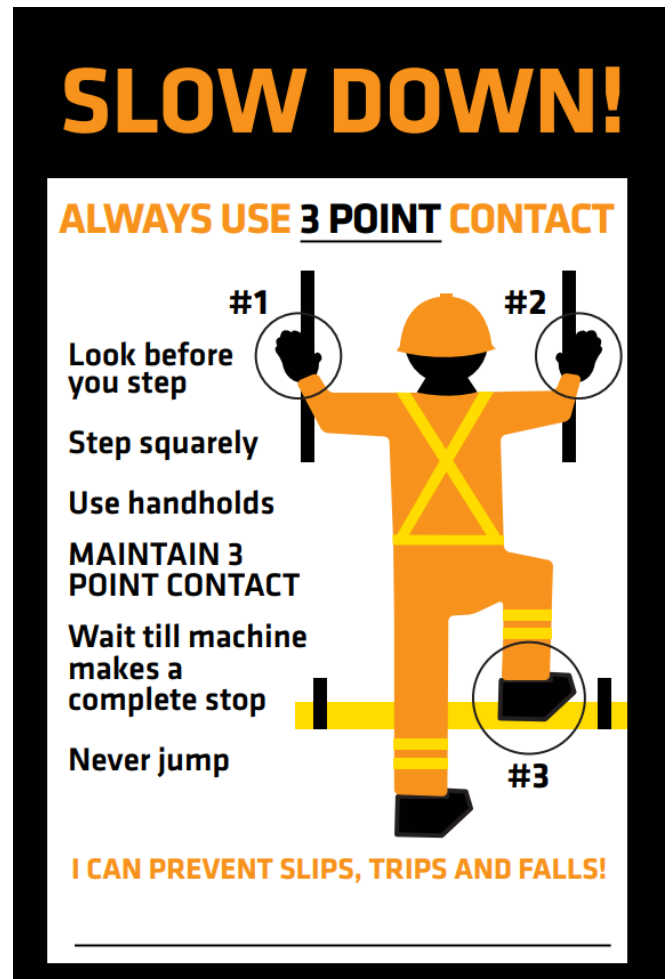
The following stickers and posters are available for download.

Stickers – <https://www.bcforestsafe.org/resource/industry-stickers/>

Posters – <https://www.bcforestsafe.org/resource/industry-posters/>

These stickers and posters are available free of charge to BCFSC members. Please [email us](#) the requested quantity and shipping information.

Stickers:



Posters:

SLOW DOWN!

ALWAYS USE 3 POINT CONTACT

Look before
you step

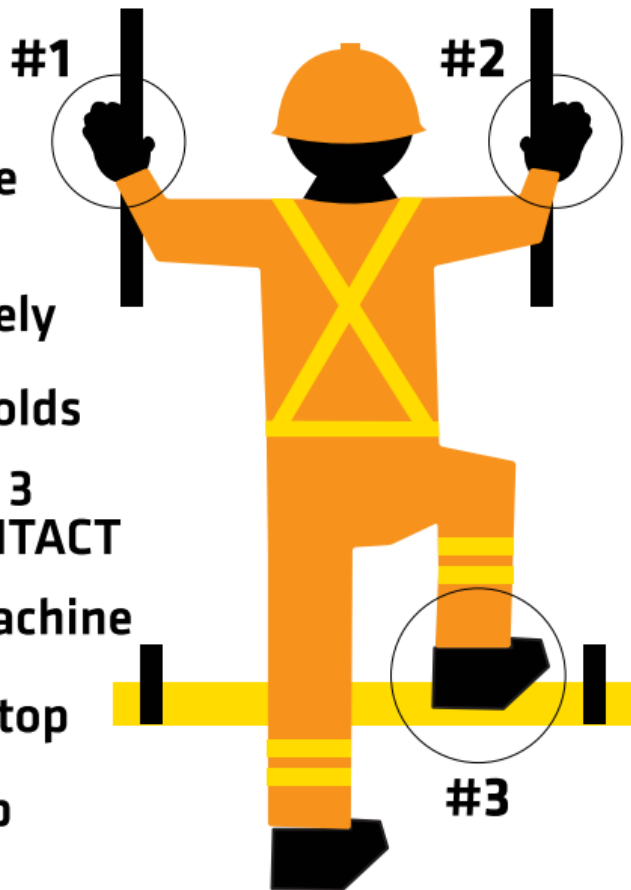
Step squarely

Use handholds

**MAINTAIN 3
POINT CONTACT**

Wait till machine
makes a
complete stop

Never jump



I CAN PREVENT SLIPS, TRIPS AND FALLS!



STAY SHARP

Slips, trips and falls are the second most common workplace injury. Stay on your feet with proper footwear, being aware of where you step and carrying only what is needed. **It's easier to stay well than get well.**

bcforestsafe.org



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STAYING SAFE IS A BALANCING ACT.

OVERCAST

PILED SLASH

LOOSE BARK

WET WOOD

UNEVEN GROUND

ROOTS

WET GRASS

DEEP UNDERGROWTH

SKID TRAIL RYTS



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Safety is **good** business

Walking in the woods can trip you up. Keep focused.
Step over, not on, slash. It's easier to stay well than get well.

bcforestsafes.org

STAYING SAFE IS A BALANCING ACT.

POOR LIGHTING

SNOW ON LOGS

ROCKS

LOOSE BARK

HIDDEN ROOTS

ICE

SNOW COVERED GROUND

FROZEN, RYTTED GROUND

Winter walking conditions can be hazardous. Wear proper footwear. Take smaller steps. Stretch to stay limber. It's easier to stay well than get well.



BC Forest Safety
Safety is **good** business

bcforestsafe.org