

# preventing knee injuries in skiing and snowboarding

Instructor Guide

## Safety Talk Overview:

**What & Why?** Safety Talks are a method to refresh an employee’s knowledge and skills, maintain their interest in safety and illustrate the organization’s commitment to creating a healthy & safe work environment.

**Who & When?** Generally, these Safety Talk meetings are led by a supervisor, member of the JHSC, or Worker H&S Representative and should be mandatory for all crew members to attend. The content should be focused on a single topic. Safety Talks can be performed on a weekly basis or before the start of a new scope of work and should be about 15 minutes in duration.

go2HR developed this safety talk template for employers to customize and use for any topic in their organization. The Participant Handout should include information that you hope the worker will retain from the safety talk content and should be handed out during the safety talk for workers to reference later. Feel free to use it at your discretion.

**Knee Injury Overview**

Knee injuries pose a significant risk, comprising 30-40% of all alpine skiing injuries, with skiers being twice as likely as snowboarders to suffer them. Despite advancements in release bindings, the knee remains vulnerable to damage, often resulting in slow recovery.

**Safety Talk Outline (using the handout below):**

- Common Knee Injuries

- Risk Factors

- Prevention Measures

- Safety Tips

- Discussion Questions

**Additional Resources:**

- [WorkSafeBC Musculoskeletal Injury Information](https://www.worksafebc.com/en/health-safety/hazards-exposures/ergonomics)

- [go2HR Ski Areas](https://www.go2hr.ca/health-safety/ski-areas)

## Topic Overview:

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## Safety Talk Facilitator Guidance

🞏 **Introduce** the topic and why it’s important

🞏 **Discuss** the associated hazards and likely incidents

🞏 **Tour** the work zone identifying hazardous areas

🞏 **Distribute** the Participant Handout

🞏 **Use** the info above to guide the discussion

🞏 **Document** the talk using the Safety Talk Record

🞏 **Explain** what controls are used to minimize the risks

🞏 **Remind** employees about applicable PPE usage

🞏 **Emphasize** the importance of safe work procedures

🞏 **Ask questions** to generate group discussion

🞏 **Answer any questions** or concerns they might have

🞏 **Set a good example** by working safely at all time

# Preventing knee injuries in skiing and snowboarding

Safety Talk Record

|  |  |
| --- | --- |
| **Discussion Leader:** | **Date:** |
| **Department:** | Time: |

### Attendees (Please print your name and sign beside it. If you are a contractor, also include your company name):

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### Near miss/incidents and investigations reviewed: ☐ None this month

### Any questions or concerns from workers?

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| --- | --- | --- | --- |
| **Action needed:** | **Person responsible:** | **Due date:** | **Completed date:** |
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| --- | --- |
| **Supervisor/Manager print name & sign:** | **Date:** |

### Reviewed by:

# Preventing Knee Injuries in Skiing and Snowboarding

Knee injuries pose a significant risk, comprising 30-40% of all alpine skiing injuries, with skiers being twice as likely as snowboarders to suffer them. Despite advancements in release bindings, the knee remains vulnerable to damage, often resulting in slow recovery. Understanding common injuries and risk factors can help mitigate these risks:

**Common Knee Injuries**:

MCL Injuries (Medial Collateral Ligament):

- Cause: Result from excessive force, often during a forward fall in the snowplow position

- Treatment: Rest and rehabilitation exercises can aid recovery

ACL Injuries (Anterior Cruciate Ligament):

- Cause: Various skiing falls, including backward and forward twisting falls, and off-balance jumps

- Treatment: Complete tears may necessitate surgery and extensive rehab

**Risk Factors:**

- Binding Issues: Ensure bindings are set correctly and functioning properly

- Physical Condition: Warm up, maintain fitness, and avoid skiing when fatigued or dehydrated

- Speed and Technique: Ski within your skill level and adapt to conditions

- Awareness of Falls: Be cautious of slow backward falls and hyperextension during edging

**Prevention Measures:**

- Equipment Maintenance: Keep ski/snowboard gear in good condition with appropriate binding release settings

- Skill and Speed: Stay within your skill level, and relax if you fall to prevent further injury

- Jumping Safety: Only attempt jumps if experienced, and focus on proper landing technique

- Pre-season Preparation: Strengthen core, hip, and leg muscles to improve stability

**Safety Tips:**

- Prioritize your health: Get enough sleep, stay hydrated, and snack on healthy foods to maintain energy levels

- Warm up: Spend at least 10 minutes on dynamic movements and stretches to prepare your body for the slopes

- Maintain equipment: Keep gear in good condition, including edges, wax, and binding settings

- Focus on stance: Start with a neutral spine, engage your core, and keep knees bent with hands forward

- Learn to fall safely: Practice falling techniques and know how to stop safely after a fall

- Stick to your skill level: Stay on runs that match your abilities and adjust to changing conditions

- Consider lessons: Improve your technique gradually with professional instruction

**Discussion:**

- Which of practices that we’ve chatted about do you find most crucial for preventing knee injuries on the slopes?

- Would anyone like to share any other prevention tips that have worked for them?

- Discuss how environmental factors impact the likelihood of knee injuries

- Discuss proper falling techniques

Participant Handout

### For more information on this topic or if you have questions, contact: