



## Keeping the Young Forestry Worker Safe

By Dr. Delia Roberts

Starting in January 2023, amendments to the Employee Standards Act will set age limits for some types of forestry work. Employees will have to be at least 16 years old to work in silviculture, wildland firefighting and jobs that require fall protection, and at least 18 years old to work in tree falling and logging, using a chainsaw or a respirator, or production processes at pulp, paper, saw, shake or shingle mills.

The aim of these new regulations is to improve the safety of young workers. About 13% of people employed in British Columbia in 2021 were between the ages of 15 and 24 years, and they accounted for 12% of the recorded incidents. In 2021, the injury rate in the forestry sector was 3.8; well above the provincial rate of 2.2. Young workers accounted for 13% of total claims in forestry and 24% of forestry claims are serious, which can have lifelong repercussions. There are some specific needs of the young worker whose bodies and brains are still developing and these differences may contribute to a higher rate of incidents for young workers when engaged in hazardous tasks.

Most 16–18 year-olds entering the workplace face a period of time where they are acquiring new skills and adapting to the many demands of their new job. Because these young workers may not have fully completed their physical, mental and emotional development, being aware of specific requirements over and above the needs of adult workers can help to keep them safe. Additionally, because of hormonal changes and the process of emotional maturation, decision-making in younger workers can be heavily influenced by their peers. Providing positive support and encouragement to these young people can go beyond the workplace to help them to establish lifelong, healthy lifestyle behaviours.

### Energy and Water Requirements

The base energy requirements for 16-18 year olds are generally higher than adults of the same gender and body size due to the additional energy required for growth and tissue development. The chronological age by which growth is complete varies widely, but most males reach adult height between the ages of 17-20 years and females between the ages of 15-18 years. There are also significant gains in bone diameter and muscle mass during these years. In fact, adolescent males and females can gain between 9 -12.5 and 5.5 – 10.5 kg/year, respectively. That takes a lot of calories!

Most of the studies on heat exposure and hydration do not consider the 16-18 year old age group. It does appear that children sweat less than adults and thus have to rely more on releasing excess heat by increasing blood flow to the skin, but whether this is true of 16-18 year olds is unknown. If some of the difference remains, it may mean that wearing

PPE that limits heat loss may be more problematic for this group when working in the heat.

The increased energy needs of the young worker combined with lower levels of organizational skills may create a situation where they arrive at a remote site without adequate food and water for the day. One might think that going hungry and thirsty for a day or two will reinforce the need for better planning, but for jobs with significant risk, the consequences can be serious. Both dehydration and low blood sugar can impair alertness, reaction time and increase the tendency to ignore risks, all of which can contribute to injuries. Should this be the situation in your workplace, it may be necessary to provide additional supervision, adjust the assigned tasks to lower the risk level or arrange for better access to food and water.

### Requirements for Specific Nutrients

Bone and muscle growth require specific nutrients that are generally met by a healthy mixed diet. However, diets lower in calcium, Vitamin D, iron and protein may lead to weaker bones and impair energy delivery. While these things may not contribute to the risk of injury in the short term, they may increase the severity of an injury if an incident occurs. Unfortunately, financial constraints or operating issues that prevent access to healthy food still exist in British Columbia.

Table 1. Recommended intakes for active people in late adolescence.

	Males 16-18 years	Females 16-18 years
<b>Base energy requirement</b>	(11.1 * body mass in kg) + (8.4 * height in cm) – 340	(11.1 * body mass in kg) + (8.4 * height in cm) – 537
<b>Additional energy requirement for moderate activity</b>	Body mass in kg * number of hours of activity * 6	Body mass in kg * number of hours of activity * 5
<b>Protein</b>	0.3 g protein/kg×5 per day	0.3 g protein/kg×5 per day
<b>Calcium</b>	1300 mg/day	1300 mg/day
<b>Vitamin D</b>	600 IU	600 IU
<b>Iron</b>	Recommend testing for levels of ferritin (stored iron) in vegetarians	Recommend testing for adequate levels of ferritin (stored iron) in vegetarians

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## Sleep Requirements

The impact of fatigue on performance and risk of incident is well known in the forest industry. Likewise, anyone who has raised a teenager knows that they like to sleep in. What you may not be aware of is that research shows 16-18 year olds require between 8 – 10 hours of sleep per night, and the average duration of sleep for this age group is typically only 7.5 hours. Furthermore, there is a delay in the biological timing of sleep that reduces feelings of sleepiness until later in the night. Because of the early morning start times for forestry work, it is very likely that most 16-18 year old workers will develop a sleep deficit with associated impairments in alertness, reaction time, cognitive processing, memory and mood.

## Brain Development

The hormonal changes that occur during puberty not only cause growth and sexual maturation, they also have a large effect on the brain. Areas that govern higher order thought processes continue to mature in 16-18 year olds. In fact, it is thought that development is not fully complete until around the age of 25 years. These structural changes in the brain are associated with behaviors that are seen in adolescents like impulsivity, risk taking, emotional reactivity, mood swings

and seeking peer approval. Although individuals develop at different rates, it is likely that many 16-18 year olds will still experience at least some of these behaviors. This means that they are less likely to assess conditions appropriately when faced with hazardous or unexpected situations, which may lead to increased levels of risk.

## What You Can Do

Nutrition and hydration are important for health and longevity, but are critical to the ability of staying vigilant on the job and reacting quickly and appropriately to different situations – for workers of all ages. Given the increased energy and nutritional requirements of young workers, make sure they are aware of the importance of bringing enough food and water, especially when working in remote locations. Similarly, fatigue management is an important safety topic in forestry industry. Young and older workers alike benefit from being reminded how important sleep is for workplace performance and safety. Encourage everyone to keep a sleep log and practice good sleep habits. Being aware that young workers aged 16 – 18 are still developing physically and mentally can be helpful in understanding the challenges that they face and in providing them with the support they need to be safe on the job. 🍏

# Mental Health - Having Courageous Conversations

By Stacey Sproule, Safety Advisor

The overall health of a workplace includes both the physical and psychological well-being of all workers. By treating mental health equally with physical health, a workplace can support the overall well-being for everyone in the workplace. Remember, poor mental health not only hurts the individual, but it also affects your bottom line.

Conversations around mental health can be difficult, but they are important to improving employee morale and creating a better workplace. Creating a safe space so the worker can share and discuss their concerns will foster a caring culture of support in which everyone benefits.

## How can employers support workers' mental health needs?

Ensuring workers are healthy and able to perform their duties to the best of their ability is essential. Employers have a

responsibility to protect workers' health and safety and that includes mental health.

There is no one "right way" to create a mentally healthy workplace because every workplace is different – from the people doing the work, to the work that needs to be done, to the leaders running the organization, the size of the organization - all of these factors play a role in mental health.

One way to achieve a psychologically safe workplace is to create and implement a Comprehensive Workplace Health and Safety (CWHS) Program. This program is a series of strategies and related activities, initiatives and policies developed by the employer, in consultation with employees, to continually improve or maintain the quality of working life, health, and the well-being of the workforce.

Some strategies for creating a positive space for protecting mental health include:

- Create a work culture that values people's input in all aspects, including planning, policy making and setting goals.
- Ensure managers and supervisors act to support the organization's values.
- Balance job demands with workers' capabilities and resources.
- Have clearly defined job descriptions to help people understand their roles.
- Provide leadership and mental health training for managers and supervisors to learn their roles in promoting positive mental health.
- Encourage and create opportunities for learning, skill development, personal growth and social interaction between all staff members.
- Address mental health hazards as equally as you would physical safety or other hazards.
- Provide opportunities or programs that assist individuals in maintaining good health such as a fitness policy, healthy food choices, hydration stations, gratitude challenges or wellness boards where workers can share their ideas on personal well-being.

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## What can workers do to address their own mental well-being?

Some strategies for workers to protect their personal mental health could include:

- Seeking help when needed. Talk to your supervisor, human resources, or health and safety representative. Use the Employee Family Assistance Program (EFAP) if available.
- Participating in planning with your supervisor to balance work demands and workload.
- Finding a hobby or activity that helps you relax and brings happiness and doing it regularly.
- Sharing your feelings with someone you trust or writing them down in a journal.
- Acknowledging when things are going well. Celebrate your successes.
- Getting to know who you are, what makes you happy and what your stress triggers are. Learn to acknowledge what you can and cannot change about yourself or the situation.
- Developing healthy habits such as regular exercise, adequate sleep and a balanced diet.

## How can I support someone with mental health issues?

People are often hesitant to reach out to help a friend or co-worker who is struggling for fear of saying the wrong thing, offending the other person, or worrying that you are not qualified to ask about their mental health.

However, simply asking someone “Are you okay?” is a great place to start when it comes to supporting individuals who may be facing mental health challenges. Remember, you don’t need to be a therapist to show compassion and empathy to individuals who may be facing struggles or challenges with their mental health.

## What are some tips for effective verbal communication?

- Focus your attention on the other person to let them know you are interested in what they have to say. Try not to share your personal opinions or experiences. Make it about them.
- Listen carefully. Do not interrupt with unsolicited advice or views.
- Be observant. Decide if it is a good time to speak, or if you should wait for a more appropriate time.
- Be aware of how you are delivering your words.
- Speak calmly, quietly and confidently.
- Use common words. Do not use official language, jargon, or complex terminology.
- Encourage the person to talk.
- Remain open minded and objective.
- Acknowledge the person’s feelings. If they appear upset, indicate that you can see they are upset.
- Try to understand. Ask questions like “help me understand why you are upset.” Once you think you understand, repeat it back to the person so they know you understand
- Remain calm if the situation becomes heated. Try to gently compose the other person and try to stay in control of your own feelings.

## What are tips for effective non-verbal behaviour and communication?

- Use calm body language. Have a relaxed posture with unclenched hands and an attentive expression.
- Position yourself at a right angle to the person, rather than directly in front of them.
- Give the person enough physical space. This distance varies by culture but normally two to four feet is an adequate distance.

- Get on the other person’s physical level. If they are seated, try sitting yourself, or kneel or bend rather than standing over them.
- Pay attention to the person. Do not do anything else at the same time such as answer phone calls, read e-mails, etc.
- Avoid challenging body language such as:
  - glaring or staring
  - putting your hands on your hips
  - pointing your finger
  - waving your arms
  - crossing your arms
  - clenching your hands

BCFSC has researched many organizations that can assist with those struggling with mental health challenges. Here is a list of information you can access to help both employers and workers.

[BCFSC Mental Health Resources](#)

[Mental Health Commission](#)

[Mental Health – How to Address and Support](#)

[Mental Health in the Workplace](#)

[Implementing Employee Mental Health Strategies in the Canadian Workplace](#)

[WorkSafeBC FAQ’s: Mental Health Claims](#)

[Mental Health First Aid Course](#) 