

SEASONAL SAFETY: Protecting Outdoor Workers from Insects & Wild Animals



Workers who work outside in industries such as construction, mining, forestry, landscaping and park management face safety hazards that indoor workers don't face. For example, outdoor workers are exposed to hazardous insects, such as ticks, and they may be vulnerable to attacks by wild animals, such as bears and wolves. Although insects and wild animals are part of nature, employers still have a duty to protect workers from them when they pose safety risks. So here's a look at what the OHS laws say about these 'natural' hazards and how to protect workers from them.

WHAT THE LAW SAYS

The OHS and related laws often don't include specific requirements for dangerous animals and insects. There are some exceptions, however. For example, the *Mine Health and Safety Regulations* of NT and NU require the person in charge of an exploration site to ensure that workers are trained on protection from animal attacks and given the means to prevent an attack or defend themselves from 'an attack by any animal likely to be encountered in the area.' And Newfoundland's *Mineral Exploration Standards Regulations* say exploration work crews must be made aware of the potential for encounters with black bears and polar bears.

But the duty to deal with the hazards of animal attacks and bug bites is usually covered by the so-called 'general duty' clause—that is, the part of every OHS statute that requires employers to take every reasonable precaution to provide a safe and healthy workplace and protect workers from known or foreseeable risks. So if you know or should know that workers are at risk of, say, being attacked by a cougar or being bitten by a mosquito, you have a duty to take reasonable steps to protect them from that hazard.

Some jurisdictions have explicitly or implicitly applied the general duty clause to wild animals and insects in safety bulletins or guides. For example, Work Safe Alberta released a safety bulletin on West Nile Virus that says the OHS laws require employers to assess the work site and identify hazards before work begins. When a hazard exists—such as the risk of being bitten by an infected mosquito—it's the employer's duty to eliminate or control the hazard. In the case of West Nile Virus, employers can protect outdoor workers by taking steps

to reduce their chances of being bitten by infected mosquitoes. In addition, WorkSafeBC released a hazard alert on bear attacks as well as guidelines on training workers on bears, which can be applied to other hazardous wildlife and insects. And a Guide to Workplace Safety for Golf Courses and Groundskeeping from the Workers' Compensation Board of PEI notes that working outdoors means having to fend off bees, wasps, stinging ants, mosquitoes and other pests on occasion. It recommends that workers wear protective clothing or insect repellent to help prevent stings and bites from insects.

To ensure that you properly protect workers from wild animal attacks and insects, take the same basic approach that you use to deal with other safety hazards:

Step #1: Identify and Assess Risk

The first step is to evaluate the workplace to determine if workers are at risk of being attacked by wild animals or bitten by dangerous insects. If you determine that workers are exposed to such hazards, assess the nature and seriousness of the hazard. For example, forestry workers face a far greater risk of attacks by bears or wolves than do construction workers, who are probably only at risk of insect bites.

Step #2: Control the Risk

Next, take steps to eliminate or, if that's not practical, control or minimize that risk. For example, give workers bug repellent to spray on themselves while working outdoors to prevent insect bites. Also, remove standing water in or near the workplace to avoid attracting mosquitos. (We'll discuss the measures you can take to protect workers from animal attacks and dangerous insects in more detail below.)

Step #3: Educate and Train Workers

Educate workers on the risks of insect bites and animal attacks, and train them on how to deal with animal encounters and avoid being bitten by bugs. (For example, you can use this checklist to ensure your bear safety training covers the key areas.)

Step #4: Monitor and Follow Up

As always, you should monitor the effectiveness of your safety measures. For example, investigate all incidents in which workers encountered wild animals. Assess not only actual attacks and why they happened, but also encounters that didn't result in attacks and why they didn't happen. Try to learn from each kind of encounter and modify your safety measures accordingly.

ANIMAL ATTACKS

In certain industry sectors, such as forestry, oil and gas, and mineral exploration, attacks by wild animals, such as bears, wolves and cougars, pose a serious safety hazard. For example, an Alberta Environment worker was working at a field camp when she was attacked by a cougar. Co-workers managed to fight the big cat off and give her first aid until she was taken to the hospital by air ambulance. And in the Yukon, a grizzly bear attacked a worker at a fly-in mineral exploration camp. The female bear, who was with two cubs, injured a

worker and killed one of her dogs.

To determine if an animal attack is a foreseeable risk for your workers, consider:

- Any history or reports of animal attacks against workers or others in the area;
- Knowledge of the presence of dangerous animals in or near the workplace. If your workplace is located in a part of Canada that's home to potentially dangerous animals, it's foreseeable that your workers are at risk of being attacked by such animals; and
- The nature of the work. For example, a worker at a remote oil drilling site is more likely to be exposed to animal attacks than a worker in a manufacturing plant.

If your workers *are* at reasonable risk of attack by wild animals, some of the safety measures you should consider implementing include:

- Giving workers at risk of bear attacks pepper spray, bear repellent, 'bear bangers' (which make a loud noise designed to drive bears away) or even guns;
- Ensuring that workers working alone or in remote areas have portable radios, GPS systems and ready access to helicopters so they can quickly be found and removed from areas in which bears or other dangerous animals have been sighted; and
- Training workers on how to react when they encounter animals such as cougars, bears and wolves.

Insider Says: Wild animals aren't the only ones who may pose a danger to workers. Domesticated animals such as cats and dogs may also pose a risk. For example, a postal worker was making her deliveries when a dog broke loose from its harness, raced toward her, grabbed hold of her left leg and pulled her to the ground. It then sunk its teeth into her right leg, refusing to relent until a homeowner intervened using a crowbar. So if your workers are at risk of attacks by pets, you should follow the steps above and implement appropriate safety measures to protect them.

DANGEROUS INSECTS

Bites by dangerous insects can not only be painful in and of themselves but also spread diseases, such as Lyme disease and West Nile Virus. In addition, workers with allergies can die even if bitten by an uninfected insect. Here are some of the key dangerous insects from which you should protect workers.

Ticks

Ticks live in tall grass and wooded areas, and are usually active April through October, with peak activity from June through August. Preventing tick bites is important because such bites can transmit Lyme disease. This illness is spread by the bite of an infected blacklegged tick (also called a deer tick) or western blacklegged tick, which are very hard to see and much smaller than common dog and cattle ticks.

According to the Public Health Agency of Canada, although not all blacklegged ticks carry Lyme disease, populations of infected blacklegged ticks are

growing' meaning the risk of contracting Lyme disease is on the rise across Canada.

To protect workers from tick bites, tell them to do the following when working in areas where ticks may be present:

- Wear closed-toe shoes, long-sleeved shirts and pants;
- Pull socks over pant legs to prevent ticks from crawling up legs;
- Wear light-coloured clothes to make spotting ticks easier;
- Use insect repellents that contain DEET or Icaridin. Repellents can be applied to clothing as well as exposed skin. Always read and follow label directions;
- Shower or bathe within two hours of being outdoors to wash away loose ticks; and
- Do a daily 'full body' check for ticks.

If a worker finds a tick on his skin, removing it within 24-36 hours of the tick bite usually prevents infection. To remove a tick, using clean tweezers, carefully grasp the tick as close to the skin as possible. Pull slowly upward, but try not to twist or crush the tick. If parts of the tick's mouth break off and remain in the skin, remove them with tweezers.

Once the tick is removed, wash the area with soap and water or disinfect it with alcohol or hand sanitizer. Save the tick in a plastic bag that you can seal or a pill bottle. Record the location and date of the bite. You can store the container for up to 10 days in the refrigerator (for live ticks) or freezer (for dead ticks).

Mosquitos

Mosquito season starts as early as mid-April and lasts until the first hard frost in late September or October. But the risk is greatest when the mosquito species that are the primary virus-carriers, are most prevalent, active and biting, which is generally between mid-July to mid-September. In fact, most people get infected in late July and early August.

Mosquito bites are itchy and uncomfortable. But the real danger comes from being bitten by a mosquito carrying West Nile Virus. Many people who are infected with West Nile don't have any symptoms. But others may develop either:

- West Nile Non-Neurological Syndrome, which can have symptoms including headache, body aches, nausea, vomiting, skin rash and swollen lymph glands that usually resolve within 3-6 days; or
- West-Nile Neurological Syndrome, a severe infection that can include headache, high fever, neck stiffness, stupor, disorientation, coma, tremors, convulsions, muscle weakness and paralysis.

A safety bulletin from Work Safe Alberta suggests that employers do the following if workers are exposed to mosquitoes on the job:

- Have a plan for reducing the chances of workers getting bitten by infected mosquitoes (such a plan should include these six elements);
- When scheduling work, avoid having workers work outdoors at dawn and dusk when mosquitoes are most active and minimize work near standing water when mosquitoes are most active;

- Require at-risk workers to wear light-coloured, long-sleeved shirts, long trousers and socks. Wearing high boots and taping trouser legs is also recommended;
- Have workers use insect repellent containing DEET or a similarly effective active ingredient on exposed skin; and
- Eliminate sources of standing water, such as stagnant pools, ponds, irrigation ditches and rain barrels, where mosquitoes like to lay their eggs.

Stinging Insects

Attacks by stinging insects such as bees and wasps are a real threat to some workers' and can have very painful consequences. For example, a U.S. Postal Service worker in Chicago was hospitalized after being attacked by a swarm of hornets while delivering mail. She was stung between 30 and 50 times near her head and neck. A resident called 911 after hearing her screams. Landscapers working nearby may have aggravated the nest and set the hornets in motion.

Being bitten by insects such as bees, wasps and hornets may be especially painful and even deadly for workers who are allergic. So if you know that a worker has, say, a bee allergy, you may have an even greater obligation to protect him from bee stings.

According to NIOSH, here are some ways that workers can protect themselves from insect bites:

- Wear light-coloured, smooth-finished clothing that covers as much of the body as possible;
- Avoid perfumed soaps, shampoos, and deodorants. And don't wear cologne or perfume;
- Wear clean clothing and bathe daily;
- Avoid flowering plants when possible;
- Keep work areas clean. Some insects are attracted to discarded food;
- Remain calm and still if a single stinging insect is flying around. Swatting may cause it to sting;
- If attacked by several stinging insects, run away. (Bees release a chemical when they sting, which attracts other bees.) Go indoors or to shaded areas, which are better than open ones. Don't jump into water. Some insects (such as Africanized honey bees) are known to hover above the water;
- If an insect is inside your vehicle, stop slowly and open all the windows; and
- 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.

If a worker *is* stung by an insect:

- Have someone stay with the worker to be sure that he doesn't have an allergic reaction;
- Wash the site with soap and water;
- Remove the stinger using gauze wiped over the area or by scraping a fingernail over the area. Never squeeze the stinger or use tweezers;
- Apply ice to reduce swelling; and
- Don't scratch the sting, which may increase swelling, itching and risk of infection.

Fire Ants

According to a bulletin from WorkSafeBC, European fire ants are small reddish-brown ants native to Europe and Asia. But they're also present in parts of Canada, particularly in BC, and they can pose a threat to workers. Fire ants may be found in places such as:

- Construction sites
- Properties with landscaping
- Equestrian centres
- Garden centres and nurseries
- Urban parks
- Botanical gardens
- Community gardens
- Golf courses.

Fire ants are very aggressive. If their nests are disturbed, they swarm quickly and deliver painful stings that can inject venom under the skin. After a sting, a burning sensation develops and can last from 30 minutes to two hours. The burning is followed by itchiness that can last up to a week. At a minimum, stings cause swelling, redness and discomfort. In rare cases, they can result in a severe allergic reaction.

To help prevent workers from being stung by fire ants, instruct them to wear clothing and footwear that cover exposed skin, such as long-sleeved shirts, long pants, socks, closed-toe shoes and gloves. In addition, workers should tie pants' bottoms or tape them to socks or boots.

If a worker *does* get stung by a fire ant, he should brush the ants away from the skin with a gloved hand or cloth. Don't crush the ants—it'll only encourage more of them to sting. Taking an antihistamine can relieve minor swelling and irritation. Workers should see a doctor if the symptoms get worse.

BOTTOM LINE

Most safety hazards involve inanimate objects, chemicals or conditions, such as extreme heat. But living creatures can also pose a threat to workers, particularly when they work outside. Protecting workers from attacks by wild animals and insects may be a little unusual but really involves exactly the same process as addressing hazards such as pinchpoints in machinery and burns from hazardous substances.