Workers'

occupational health and safety

handbook

Alberta

Introduction

This book is a quick reference for you, an Alberta worker. It introduces some basic occupational health and safety requirements that apply to employers, supervisors and workers at provincially regulated work sites.

It also gives at-a-glance information about some common health and safety hazards that all workers should keep in mind every day on the job.

If you have questions about occupational health and safety, speak with your supervisor, employer or health and safety representative. You can also visit **Alberta.ca/ask-expert or call the Alberta Occupational Health and Safety Contact Centre at 1-866-415-8690**.

Know the law

Alberta's occupational health and safety laws state the rights and duties of work site parties.

Your employer must tell you about your rights and responsibilities. Learn how the law relates to you. It can help keep you healthy and safe when you're at work.

The law gives workers specific health and safety rights. As a worker you have the right to participate in health and safety activities, and to know about workplace hazards and have access to health and safety information. And as we talk about in the next tab, you also have the right to refuse dangerous work.

You also share the responsibility of staying healthy and safe on the job. Some of your legal responsibilities are to:

- Take good care to protect yourself and others at work.
- Co-operate with others – including your employer and supervisor – for the purposes of health and safety.
- Participate in health and safety training.
- Wear/use your required PPE, devices and equipment.
- Report hazards to your supervisor or employer.

You must also refrain from causing or participating in harassment or violence in the workplace.

Your employer and supervisor have responsibilities too.

Employers must do everything that's reasonably practicable to protect your health and safety at the workplace. This includes making sure:

- Health and safety are maintained at the workplace.
- You are trained and have the proper knowledge and skills to perform your job safely.
- You know your duties and responsibilities for keeping the workplace healthy and safe.

Supervisors are people who have charge of a work site or authority over a worker. It's the authority of their position that defines a supervisor, not their job title – some examples of supervisor titles (depending on the organization) include charge nurse, manager, foreman, lead hand or team lead. **Supervisors must protect the health and safety of workers under their supervision.**

The *Guide to OHS* booklets listed in the **More resources** tab at the end of this book give more information about worker, supervisor and employer responsibilities, and workers' health and safety rights.

Refuse dangerous work

You have the right to refuse work that you believe presents an undue hazard to you or others. You cannot be punished or penalized for exercising this right.

An undue hazard is serious and immediate threat to health and safety that you actually observe or experience at your work site.

There are rules both you and your employer must follow in relation to work refusals.

Here's what the law says you must do:

- Promptly notify your employer, supervisor or their designate of your refusal and the reason for it.
- Ensure, as much as possible, that your refusal doesn't endanger anyone else.
- Co-operate with your employer through the work refusal process, as long as it is safe and reasonable to do so.

You must carry out any temporary work your employer assigns you, providing it's safe and within your capabilities. Temporary work assignments cannot result in loss of pay.

The work refusal rules that apply to employers start with the employer remedying the hazard immediately, if possible.

For example, your employer may be able to:

- Provide replacements for broken or damaged tools.
- Assign a trained and competent worker to do a task that an untrained worker can't safely do.

Otherwise, your employer must stop work and take a number of steps. These include inspecting the hazard (if it's safe and reasonable to do so), discussing the matter with you, and writing and sharing a report as required by law.

Learn about health and safety concerns, work refusal steps and reports, temporary work assignments and notifying OHS in *Right to refuse dangerous work* in **More resources**.

Approach your employer with any occupational health and safety concerns. Your employer must address reported health and safety concerns promptly.

If your employer does not address your concern, you should contact the Alberta Occupational Health and Safety Contact Centre at 1-866-415-8690.

When something goes wrong

Emergency preparedness

Your employer is required to have written emergency response procedures in place and ensure that all workers know what they need to do if an emergency happens.

The prime contractor at your work site – or your employer if there is no prime contractor – must have appropriate first aid resources at the work site.

If you don't know how to get first aid or what to do in an emergency at your work site, **ask your supervisor to go over the plans and resources your employer has in place**.

Incident reporting

In the world of occupational health and safety, an incident is the bad outcome of an uncontrolled hazard. For example, a slippery floor is a hazard. If somebody then slips and falls – or even if they almost fall – that's an incident.

When incidents happen and somebody does get hurt, your first priority is to get the injured or ill worker medical assistance as required. From there, you should follow your employer's defined response and reporting procedures.

Report an incident to your employer as soon as possible. Depending on the nature of the incident or its consequences and whether there is a prime contractor on site, your employer may be legally required to report to Alberta OHS.

Learn more about emergency preparedness and requirements to report to Alberta OHS in *Emergency response planning: an occupational health and safety tool kit* in **More resources**.

Hazard assessment and control

Know the hazards

Knowing the hazards related to your job can help you avoid – or at least minimize – associated risk.

A workplace hazard is a situation, condition or thing that may be dangerous to the health or safety of workers.

There are hazards related to health and to safety.

A health hazard is anything that could cause harm to someone's health, either right away or over time.

sun exposure

loud noises

repetitive movement

chemical exposure

A safety hazard is anything that could cause injury or damage (usually immediately).

workplace violence

sharp tools

slippery floors

working at heights

Hazard assessments

Hazard assessments identify hazards so they can be eliminated or controlled before someone gets hurt.

Every employer is required to conduct hazard assessments. **It's the law.**

The law also requires that affected workers be included in the hazard assessment and control process. Workers doing the work are in the best position to provide insight.

As well, health and safety committees or representatives must participate in the hazard assessment process.

A written hazard assessment and control report for your position or the tasks you do must be readily available. We all need to know what we have to do to work safely. If you haven't seen the hazard assessment for your job or type of work, ask your supervisor.

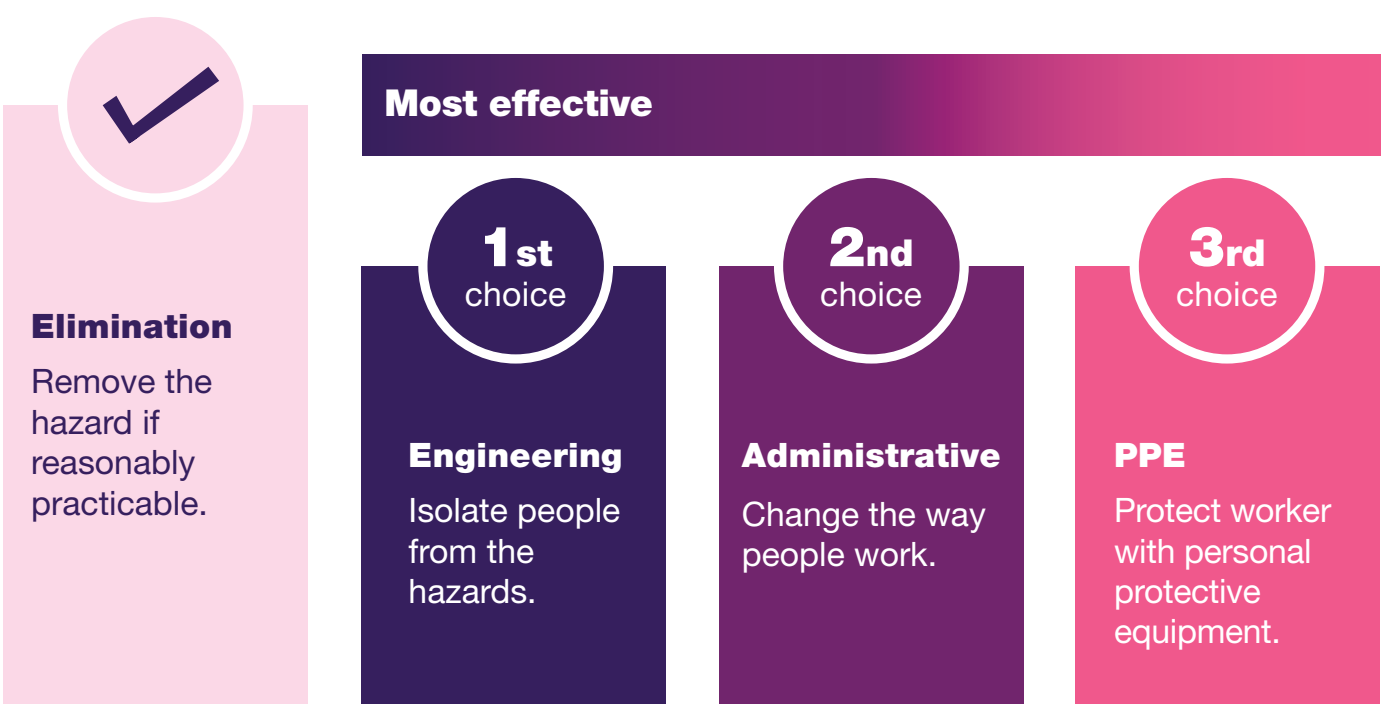
Learn more about hazard assessment requirements in *Hazard assessment and control: a handbook for Alberta employers and workers* in **More resources**.

Hazard elimination and control

Your employer must eliminate hazards wherever they can. Removing tripping hazards or safely disposing of unwanted chemicals are examples of hazard elimination.

If hazards cannot be eliminated, they must be controlled.

Some control methods are more effective than others. Alberta's Occupational Health and Safety Code outlines the hierarchy of controls to follow.



Combination of controls

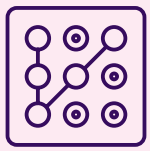
If the hazard can't be eliminated or controlled by a single method, the employer may use a combination of **engineering controls**, **administrative controls** and **personal protective equipment**.

Here are some examples of the three types of controls.

Engineering controls isolate people from hazards.

mechanical lifts

proper ventilation



secure access doors

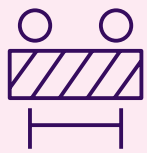
equipment guards

Administrative controls change the way people work.

safe work procedures

job rotation

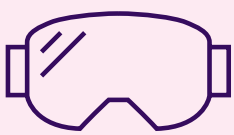
staff training



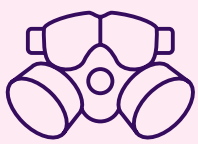
warning signs

Personal protective equipment (PPE) controls the hazard at the worker.

protective gloves



safety glasses



respirators

safety vests

Interim controls

It's important to understand that your employer may not be able to address all hazards equally, right away.

An employer may put interim controls in place while they wait for a more permanent solution. Here are two examples:

- Requiring the use of a respirator (PPE) while planning and installing a local ventilation system (an engineering solution) to control a dust hazard in one area.
- Displaying warning signs (an administrative control) while a step repair is in progress (an engineering control).

Check the controls

It's your employer's responsibility to ensure that controls are effective, and that you have the training and skills to use or follow them. And it's your responsibility to let your employer know if you have any concerns.

If you think a control isn't working properly, **tell your supervisor or employer**.

If your employer does not address your concern, you can contact the Alberta Occupational Health and Safety Contact Centre at 1-866-415-8690.

Common hazards

Many hazards are specific to a location, industry or type of work. Eliminating or controlling these may require specialized equipment, procedures or expertise.

However, everyday hazards can also have a big impact at almost any Alberta work site. In the next tabs we'll look at common hazards that have the most impact on Alberta workers. Each tab gives:

- Information to help you better understand the hazard and whether it may be present at your work site.
- Examples of common controls.
- Tips you can use to help keep yourself healthy and safe.

Use this information as a reminder for yourself, or as a conversation starter with your co-workers, supervisor or employer.

But remember, the information in this book is a starting point only. **Always make sure you know the hazards at your work and the measures that are in place to eliminate or control them.**

Ergonomic hazards

Ergonomic hazards are situations where work design or setup doesn't meet individual needs. **If unaddressed, an ergonomic hazard can cause a musculoskeletal injury (MSI).**

Musculoskeletal injuries:

- Are soft tissue injuries that can affect many body areas.
- Can range in severity from slight discomfort and a quick recovery to a life changing and lifelong injury.
- Are consistently the most common type of injury across all age groups in Alberta.
- Go by many names, including sprains, strains, repetitive strain injuries (RSIs) and musculoskeletal disorders (MSDs).

Here are examples of ergonomic hazards that often cause or contribute to musculoskeletal injuries.

Awkward or sustained postures

An awkward posture is any position where the joint moves away from neutral. An awkward posture increases stress on muscles and other tissues, and the risk of injury.

A sustained posture is a posture held in the same position for a long period of time. When the muscles hold a single position they quickly become tired, which can lead to pain and discomfort.

Repetition

Repetition is doing the same action over and over with very little variation to the movement. This can tire out muscles, which can cause an overuse injury.

using a mouse or keyboard

painting a large surface

sewing textiles

working on a conveyor line

Forceful exertions

A strong physical effort is called forceful exertion. A forceful exertion can cause injury if you have to overexert with an effort that is too big, or if you repeat or hold a small amount of effort.

opening or closing loading bay doors

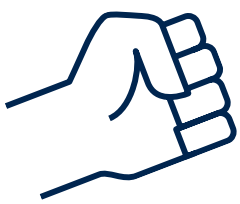
manually handling heavy objects

gripping heavy or hard-to-use tools

Contact or impact stress

Contact stress is when a worker's body comes into contact with a hard or sharp surface and the pressure is concentrated on a small area – for instance, kneeling on hard ground or resting wrists on the edge of a desk. This can cause damage by compressing nerves and soft tissues and reducing blood flow to the area.

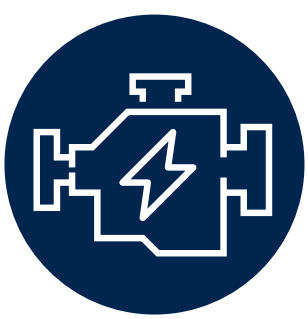
Impact stress is caused when a high external force is applied to body tissues – for example, if you use your hand or foot as a hammer. This can damage the tissues and lead to injury.



Vibration

When vibration travels from equipment to the operator's hands and arms, blood vessel and nerve damage can result. **Hand-arm vibration** damage can be temporary or permanent.

Whole-body vibration can contribute to spine and back muscle injuries and create general discomfort. This type of vibration occurs when a person sits or stands on a vibrating vehicle, machine or surface.



Report injuries

Report any work-related musculoskeletal injuries to your supervisor as soon as possible.

Your employer must investigate and identify work-related causes of the injury, and introduce controls to prevent future injuries.

The earlier you report and receive treatment for musculoskeletal injuries, the better chance you have for a full and timely recovery.

Common controls ergonomic hazard

Engineering

- equipment for lifting, lowering, pushing, pulling, carrying, handling or transporting heavy or awkward loads
- features to help with manual handling (such as castors, handles or power assist technology)
- work stations that are designed and set up to fit individuals and the tasks they perform
- adjustable equipment and furniture

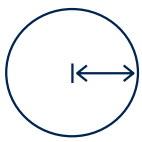
Administrative

- training and refresher training on musculoskeletal injury risk factors, signs and symptoms
- job/task rotation to minimize repetition
- safe work procedures to reduce hazard exposure, such as two-person lift protocols, or reducing the size or weight of loads
- ergonomic purchasing standards
- equipment maintenance schedules, so that equipment is ready and available for use when needed
- processes for early musculoskeletal injury reporting

Work station setup tips

Keep it close, if you use it lots

Arrange your workstation so that the objects you use most often are within closest reach.



Further away, if you don't

Put objects that you use less often further away. (These first two tips together mean less reaching.)

Work surface height

Adjust your work surface height – or what you stand or sit on – to suit your size and the type of work you do.

Sit straight

If you work sitting down, ensure your back is supported and you have enough leg clearance to sit straight.

Line your light up

When possible, keep windows beside your workstation, not in front of or behind you.

Take micro-breaks

As well as your scheduled breaks, get up and move around periodically. Setting a timer can help remind you.

Adjust for laptops

If you use a laptop, consider additional equipment – such as a separate keyboard and mouse – to avoid awkward neck, shoulder and wrist postures.

Safe manual handling tips

Start strong

Make sure your feet are positioned comfortably and are on stable ground.

Use the right muscles

Lift with your leg, butt and stomach muscles, not your back.

Pace your lift

Plan your task out. Then take your time to make sure the lift is safe.

Close is best

Keep the object you're lifting as close as you can.

Turn with your legs, not your back

Move your feet; avoid rotating or twisting movements

Lift smoothly

Jerking or jolting movements can cause harm.

Less is best

Try to reduce the weight and size you lift, and the distance you have to travel with the load.

Lift from waist height

Avoid bending down or reaching overhead in a lift.

Learn more about ergonomics in **More resources**.

Slip, trip and fall hazards

Slips, trips and falls are among the most common types of incidents in Alberta health and safety statistics.

Slipping and tripping hazards can result in falls at ground level, with injuries ranging from sprains, bruises and cuts to fractures and head trauma. Falling from heights – for instance, from a ladder or on a stair – can also lead to serious injury.

Here are some common hazards that can cause slips, trips and falls anywhere, anytime.

Surfaces and housekeeping

Slips occur when there isn't enough friction between a walking surface and a person's foot.

rain outdoors or tracked inside

newly waxed or mopped floors

low-traction flooring

icy roads, paths or parking lots

Trips can occur when the surface is uneven or changes unexpectedly.

carpets, runners or mats

steps or thresholds

sudden change in slope

rough or broken ground

Poor housekeeping practices can cause slips, trips and falls.

spilled liquids left in place

uncovered cords

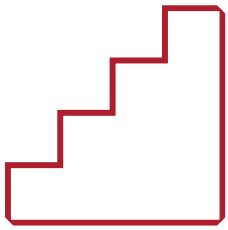
clutter left underfoot

unrepaired plumbing leaks

Footwear and equipment

It's important to select footwear for both daily conditions and work tasks. Footwear that isn't right for the weather, work site or the job at hand can cause or contribute to injury.

Work site equipment that isn't appropriate for a task, or that is improperly installed, maintained or used, can also lead to slips, trips and falls. Common examples include:



- Using a chair or stool instead of a ladder.
- Using a poorly set up or broken ladder.
- Not holding onto a ramp or stairway handrail.

Lighting and visibility

Poor lighting and blocked sight lines (for instance, by carrying an object or object that makes it hard to see where you're going) can also cause slips, trips and falls.

direct or reflected glare

dim or inadequate light

sight lines are obscured

Common controls

slip, trip and fall hazard

Engineering

- proper flooring (level surface with some grip/friction)
- handrails along ramps and stairs
- covers for openings or broken ground
- adequate lighting and clearance for foot traffic
- cleared and salted/sanded winter paths and parking lots

Administrative

- appropriate housekeeping and inspection practices
- signage to indicate wet or slippery floors
- reporting procedures for slippery walkways or parking lots
- use the right (and well maintained) equipment for the job
- training to safe work practices

Personal protective equipment

- appropriate footwear

Housekeeping tips

Clean spills and clutter immediately

Putting this off risks causing a slip or trip.

Set up warning signage

Identify surface hazards such as wet or slippery floors.

Ensure good lighting

Keep work areas and walkways well lit.

Secure trip hazards

Tack or tape mat or rug edges, and make sure cords or cables are either out of the way or secured.

Safe ladder use tips

Check the ladder is the right tool for the job

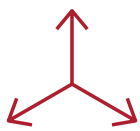
Also check that it's not bent or damaged.

Place ladder on a firm, level surface

Follow manufacturer's specifications for ladder use.

Wear the right footwear

For example, flat heel, closed toe, rubber grip soles.



Maintain three points of contact

Have either two hands and one foot, or two feet and one hand, on the ladder at all times.

Safe winter walking tips

Allow enough time

Rushing and winter conditions are a bad combination. Leave early so you don't have to rush.

Be careful getting in or out of your vehicle

If the ground is slippery, it's easy to lose balance.

Wear the right footwear

Winter boots with a non-slip tread will help prevent injury.

Do the penguin shuffle

Take short, shuffling, flat footed steps. Keep your centre of gravity over your feet and go slow!

Keep your arms free

Use a backpack or well-positioned shoulder bag.

Stay on designated walkways

Assume undesignated areas may have hidden hazards.

Pay attention

Wet, dark areas of pavement may be slippery and icy. Stay off your cell phone and mind your surroundings.

Learn more about preventing slips, trips and falls in **More resources**.

Psychosocial hazards

The National Standard of Canada for Psychological Health and Safety in the Workplace defines a psychologically healthy and safe workplace as one that "… promotes workers' psychological well-being and actively works to prevent harm to worker psychological health including in negligent, reckless, or intentional ways."

The two pieces of this definition are:

- Building a culture that supports mental health.
- Eliminating or controlling hazards to mental health.

Hazards to mental health in the workplace are called psychosocial hazards. Psychosocial hazards can be present in any workplace and can impact physical as well as mental health. **Addressing psychosocial hazards can have significant health, legal and financial benefits for everyone in a workplace.**

As with any other workplace hazard, your employer must eliminate or control psychosocial hazards.

The next three pages give some examples of psychosocial hazards.

Harassment

Alberta law says that workplace harassment is a single or repeated incident of objectionable or unwelcome conduct, comment, bullying or action **intended to cause harm** to a group or person. An incident can also be harassment if a person should have reasonably known that their action could cause harm.

Harassment creates an unhealthy work environment that causes or may cause psychological harm to workers, and can escalate to physical violence. Some examples of harassment are:

discrimination

exclusion or isolation

psychological, online or physical bullying

unwelcome conduct or comments

withholding information

setting somebody up to fail

intimidation

taking work away

sexual advances

Workplace harassment doesn't include an employer or supervisor's reasonable conduct in managing workers.

Violence

Alberta's *Occupational Health and Safety Act* defines violence – at the work site or work-related – as **threatened, attempted or actual conduct** that causes or is likely to cause physical or psychological harm. Workplace violence includes:

physical assault or aggression

sexual violence

threats of psychological or physical harm

domestic violence

As well as causing physical damage, violence can cause severe psychological trauma – both to anyone who is directly affected, and to witnesses.

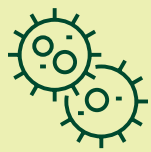
Change

Change – especially if it is imposed, sudden or poorly communicated – can impact the mental health of individuals and needs to be intentionally managed.

new or excessive job demands

new systems or technology

restructuring or job loss



major societal events

Uncertainty

Rules and expectations that aren't clear can undermine psychosocial health and safety. Examples include:

- Roles that aren't well defined.
- Leadership isn't clear about their expectations.
- Workplace rules aren't consistent or understood.

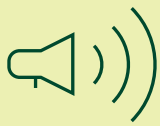
Physical surroundings

Physical surroundings are another factor that can affect psychosocial well being. **Workers have to feel safe in – not concerned and anxious about – their work environment.** They have to know that their health and safety is taken seriously.

Physical factors that can affect mental well-being include:

air quality

lighting



noise

working alone

Common controls psychosocial hazard

Engineering

- environmental measures, such as good lighting and visibility, noise barriers or soundproofing
- secure physical barriers (for example, locked doors, shatterproof kiosks) to protect workers from violence

Administrative

- harassment and violence prevention policies, procedures and training (includes working alone, if applicable)
- organizational practices that support communication, worker engagement, and fair and respectful workplaces
- psychological health and safety training

Personal protective equipment

- a personal emergency transmitter for workers who work alone in certain situations (for example, retail fuel or convenience)

Note that in relation to psychosocial health and safety:

- Specific harassment and violence prevention measures are required at all Alberta work sites.
- Working alone controls are also required, as applicable.
- Additional requirements protect retail fuel and convenience store workers from violence.
- Controls for psychosocial hazards can also control physical hazards (for example, good lighting can reduce the risk of a slip, trip or fall, or developing certain musculoskeletal injuries).
- Physical factors that require controls at specific levels or concentrations (for instance, workplace noise, or certain fumes, vapours or particulates) may affect psychosocial well being at a lower level or concentration.

Psychosocial health tips

Ask questions

Ask your supervisor if you're unclear about harassment and violence prevention plans or other hazard controls.

Follow the platinum rule

Treat others as they would like to be treated: don't participate in harassment or violence.

Follow training and procedures

Take your employer's health and safety training and apply what you learn.

Access support

If your employer or community offer support programs or services, see if any are a match for you.

Keep a clean and tidy space

Do your part to keep your personal and any shared workspaces appropriately clean, quiet and free of clutter.

Develop your mental fitness

Take breaks and choose activities that strengthen your well being and resiliency.

Learn more about psychosocial hazard prevention and psychologically healthy and safe workplaces in **More resources**.

Driving hazards

Vehicles – **even personal vehicles** – that are being used for work purposes (for example, to make a delivery or travel between offices) are considered work sites under the *Occupational Health and Safety Act*. Accordingly, occupational health and safety requirements apply, along with any other applicable legislation, such as Alberta's *Traffic Safety Act*.

There are three sources of potential hazards when driving: the driver, road conditions and the vehicle.

The driver

Annual traffic statistics indicate that **over 75 per cent of collisions in Alberta involve one or more drivers committing a driver error**. As one example, speeding is a factor in almost a quarter of the province's fatal collisions.

Other common driver errors include following too closely, running off the road, travelling left of centre, stop sign violations and disobeying traffic signals.

The physical and mental state of a driver impacts how that person drives and the likelihood of an incident occurring. **Impairment and distraction**, for example, are two factors that **can put even the most competent driver at risk**.

Impairment can have a number of causes. These include fatigue, stress, or the use of medications (prescription or over the counter), alcohol or recreational drugs. Learn more about impairment in the workplace in **More resources**.

Distracted driving laws restrict specific activities while driving, even when stopped at red lights. As well, police have discretion to lay charges for engaging in other activities that affect driving. Learn more at **Alberta.ca/distracted-driving**.

Road conditions

Weather, time of day, the type of roads, traffic volume and the potential for collision with wildlife are some road conditions that can impact driving safety. Here are a few examples from Alberta traffic collision statistics (2017 to 2021):

- Friday was the day of the week with the highest number of total collisions.
- Evening rush hour was the time period with the highest number of collisions.
- Most fatal collisions occurred in rural areas, with 59 per cent of those involving wildlife or other animals.

The vehicle

Improperly equipped, maintained or set up vehicles can contribute to the likelihood and severity of driving incidents. Equipment use can also be a factor.

- Seat belt users have a lower injury rate that those not using seat belts, especially in collisions that result in fatal or major injuries.
- Secondary collisions (from unrestrained objects in a vehicle) can also cause injuries when a vehicle crashes.

Common controls for driving hazard

Engineering

- right vehicle for the job and type of driving
- suitable tires that are properly inflated and in good condition
- vehicle contents and loads are secured

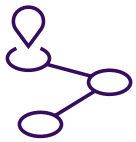
Administrative

- driver training and competency checks
- safe driving policy that includes rules related to drug or alcohol use, fatigue management and distracted driving
- safe driving procedures, such as route planning and schedules, ergonomic set-up of vehicles, and pre-trip vehicle inspections
- vehicle maintenance and inspection procedures
- vehicle emergency response plans and equipment
- working alone policies and procedures, as applicable

Personal protective equipment

- seat belts

Start smart tips



Plan your trip

Check road conditions on Alberta 511, and check weather forecasts before you go.

Use seasonal tires

Winter or snow tires provide better winter traction, because they are designed for low temperatures, snow and ice.

Do a walk-around

Check that your vehicle and tires are good to go. Make sure windows are clean, mirrors are set and lights work.

Set up your devices

Program electronics like music players, phones and GPS, select radio stations and set up hands-free, before starting.

Be ready for emergencies

Keep a seasonally appropriate emergency kit in your vehicle. Dress for the journey.

Secure cargo

Prevent loose objects from causing distractions or harm by making sure they’re secure before you start out.

Leave early

Set out early so that you have plenty of time to get to your destination.

Safe driving tips

Buckle up

Wearing your seat belt is required by law. It's also a smart and easy way to reduce injury.

Never drive if you're impaired

If you can't drive safely, delay your trip or find another way to get to your destination.

Adjust to conditions

Albertans know the weather can change unexpectedly. Adapt your driving to your surroundings.

Put your phone away

Only use your cellphone when your vehicle is parked in a safe place. If it rings when you're driving, let it wait.

Stay calm

Avoid emotional conversations – with passengers or on a hands-free device – as these can lead to driver errors.

Take rest breaks

Driving can be tiresome and tiring. Take breaks – when and where it's safe to do so – so you can rest and refocus.

Keep both hands on the wheel

Maintain good control and reduce the risk of airbag injury by keeping your hands in the "9 and 3" position (opposite sides of the steering wheel, halfway up).

Learn more about driving safety in **More resources**.

Object and equipment hazards

Tools, equipment, materials and other objects are present at every work site. Incidents from uncontrolled contact between a person and an object or equipment occur frequently, and often result in injuries.

There can be many contributing factors to such incidents, but **motion and body placement are always immediate causes**.

Struck by an object

The most common type of contact injury involves **a moving object hitting a person**. Some examples of this type of incident include injuries from collapsing or free-falling materials, equipment kickback, and thrown, snapping, slipping, sliding or rolling objects or equipment.

Doors opening or closing

Slipping hand-held tools

Objects falling from overhead

Pressure release projectiles

Caught in or compressed by equipment or objects

Another equipment hazard is the risk of **getting caught in or compressed** by one or more pieces of equipment or objects. These types of hazards result in a person or a body part being squeezed, pinched, compressed or crushed.

Equipment parts in motion

Collisions

Rolling carts or vehicles

Moving objects

Struck against object

This type of injury results when **a person in motion hits an object.** Examples of this include a person bumping into, stepping on or kicking an object, or being pushed into or thrown against something.

Common controls

object and equipment hazard

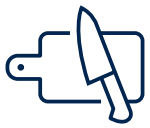
Engineering

- structural reinforcements or barriers
- control/exclusion zones (that is, designated areas that physically separate workers and mobile equipment)
- equipment guards
- tool tethers (for example, a hammer on a worker's lanyard)
- load or vehicle securement devices
- containment systems or devices
- secure shelving, racking and storage
- lock out/tag out systems
- emergency shut off mechanisms

Administrative

- task-specific and equipment-specific training
- safe work procedures that take movement (people and objects) and environment (the work site) into account
- equipment maintenance and use per manufacturer's or engineering specifications
- use of warning, signalling and communication systems

Working safely around objects and equipment tips



Use as intended

Only use tools for their designed use, and ensure they're in good working condition.

Use equipment guards

Make sure anything that's designed to keep your body separate from moving objects or equipment is in place.

Don't get caught

Ensure your hair, clothing and PPE can't get caught in moving parts. If jewellery is a risk, take it off when working.

Know the equipment shut off

If there's any chance that you might need to do so, make sure you can make an instant emergency stop.

Mind the zones

Know and follow the rules related to any designated control or exclusion zones in your work space.

Watch out for moving equipment

If you're near powered mobile equipment, be aware of the equipment's path and avoid contact at all times.

Be alert

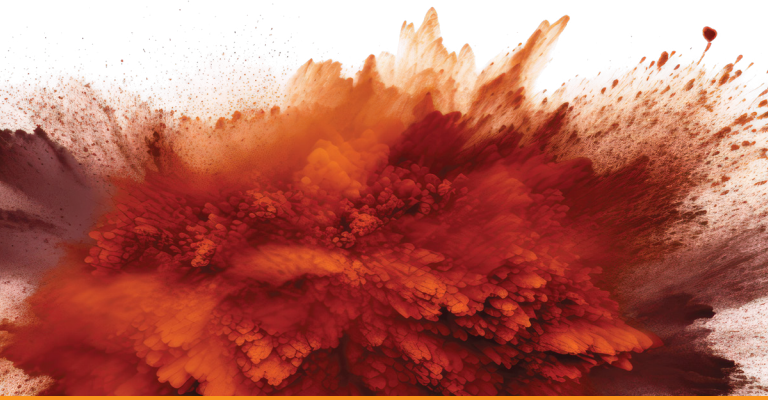
Working safely around objects and equipment requires focus. Make sure you can work distraction-free.

Learn more about physical safety around objects and equipment in **More resources**.

Harmful substances

Exposure to caustic, noxious or allergenic substances is a significant cause of injuries and illness. **The severity of the hazard is based on several factors.** These include the type of substance, the amount present, the route of exposure and the time frame over which the exposure occurs. Frequent exposure to low levels of harmful substances or a single exposure to a high level can harm a worker's health.

Health symptoms may appear in the short term or gradually over time. They can also vary between individuals. For example, a person may experience health-related effects because they are sensitive or allergic to a substance.



Exposure routes

Inhalation

This is the most common form of occupational exposure. Once a substance reaches the lower levels of the lungs it can pass into the bloodstream and then travel to target organs.

Absorption

Many substances can be absorbed directly through skin upon contact. Handling, cleaning, spilling or splashing are some ways that a harmful substance can make unwanted contact with skin.

Injection

This type of exposure includes needle injections (related to drugs or medications that are handled, dispensed or delivered through a needle) as well as cuts, scratches, bites and stings.

Ingestion

This exposure route isn't common in work settings, but is possible if good housekeeping and hand washing practices aren't followed.

Common harmful substances

Cleaners and disinfectants
(for example, alcohol sanitizers, bleach, oxidizing agents)

Equipment and building maintenance supplies
(for example, solvents, antifreeze, battery acids)

Fuels
(for example, gasoline, diesel, propane)

Gas leaks or releases
(for example, carbon monoxide, formaldehyde, ozone)

Airborne particulates
(for example, pesticides, silica, asbestos, dust or dirt)

Biological toxins
(for example, viruses, bacteria, blood and body fluids, mould, plant toxins, animals or insects)

If it's reasonably practicable, **an employer must eliminate a hazard.** Substituting a harmful substance for a substance that's safe to use is an example of eliminating a hazard.

Common controls for harmful substance

Engineering

- ventilation (dilution or local extraction)
- closed systems for handling and transfer
- automated processes
- safety engineered devices, such as splash guards, mechanical lifting equipment, retractable needles

Administrative

- training and education
- policy and procedures (for example, job rotation, purchasing policies, or safe handling, storage and disposal procedures)
- restricted access work areas
- warning signs

Personal protective equipment

- can include face shields, respirators, coveralls, gloves, boots and more, as appropriate to the particular substance

Safe chemical handling tips

Check the fine print

Read their labels or if applicable, safety data sheets before you start working with chemicals.

Plan ahead

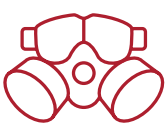
Follow any applicable instructions, apply your training and use required equipment to handle chemicals safely.

Be prepared

Know how to handle spills, splashes or other unexpected incidents. Refer to your employer's emergency procedures.

Clean as you go

As you work, follow best hygiene and housekeeping practices to ensure both you and the work area are safe.



Wear your PPE

Consider all potential exposure routes when determining what personal protective equipment you need.

Finish up safely

Store or dispose of unused chemicals properly when you are done.

Learn more about chemical hazards in **More resources**.

Biohazard safety tips

Avoid contact

Avoid anything that can bite, sting or is an allergen. If that's not possible, follow safe work procedures and training.

Break the infection chain

Vaccinations prevent or reduce the severity of certain infections, such as influenza, COVID, tetanus and hepatitis.

Use engineering controls

Use the right tools for the job – for example, fume hoods, containment systems, safety engineered devices.

Cover up

Protect your skin, eyes and other tissues by choosing the right clothing and equipment for your task and environment.

Breathe safely

Use respirators or masks if those are required by law, public health direction or your safe work procedures.

Clean and disinfect

Follow safe work procedures and use required equipment for cleaning up human or animal blood, fluids or waste.

Follow biowaste handling procedures

Use specialized equipment and supplies, such as biohazard bags or sharps containers, to send biowaste for appropriate sterilization or disposal.

Learn more about biohazards in **More resources**.

Extreme temperatures

Working in extreme temperatures can cause anything from discomfort to severe injury or loss of life. Extreme temperatures may occur indoors – but in Alberta, they are certain to happen outdoors, seasonally.

If you work in extreme heat or cold, your hazard assessment must include those hazards and appropriate controls.

Signs of cold

Shivering: Reduces heat loss by increasing heat production and reducing blood to the extremities.

Impaired coordination: Fingers, hands and toes can lose dexterity; movement can become slow and difficult.

Tingling: Loss of feeling in fingers and toes. “Frost nip”, when the top layer of exposed skin freezes, can occur on exposed skin.

Confusion: The “unusual umbles” (that is, stumbles, mumbles, fumbles and grumbles) can be symptoms of impairment from cold.

Signs of heat stress

Starting

- irritability
- muscle cramps and sweating
- fainting, dizziness, fatigue
- dehydration
- heat rash
- head aches and confusion

Worsening

- sweating may stop
- severe muscle cramps
- changes to pulse rate
- trouble breathing
- hot and dry skin
- exhaustion

Common controls working in cold

Engineering

- move work into temperature controlled indoor spaces
- heated warming shelters (for example, tents, cabins, restrooms, trailers, vehicles)

Administrative

- schedule work for warmer times of day, or when the work can be done in the sun or out of the wind
- set purposeful acclimatization time to allow for adaptation to the cold, before assigning full time work.
- work-rest schedules that allow workers to control their exposure to cold and recover in a warm place
- training about cold exposure symptoms, prevention and emergency response

Personal protective equipment

- safe clothing that is designed for cold environments (and doesn't introduce additional hazards)

Common controls working in heat

Engineering

- move work into temperature controlled indoor spaces
- establish a cooling station or sun shelter

Administrative

- scheduling work for cooler times of day or when the work can be done in the shade
- set purposeful acclimatization time to allow for adaptation to the heat, before assigning full time work
- provide plenty of fluids at the work site
- work-rest schedules that allow workers to control their exposure to heat and recover in a cool place
- training about heat stress symptoms, prevention and emergency response

Personal protective equipment

- safe clothing that is designed for hot environments (and doesn't introduce additional hazards)

Staying warm in the cold tips

Layer your clothing

Wear layered clothing that has high insulating properties.

Stay dry

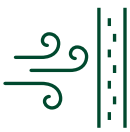
Keep footwear and other clothing dry to save heat.

Cover exposed skin

Bare skin is more susceptible to frost damage. Always have hat, mitts and gloves on hand.

Keep moving

Staying in motion will generate body heat.



Reduce wind-chill

To reduce wind-chill, stay in the sun and shield yourself from drafts and winds.

Work and warm-up

Use a work/warm-up schedule, limiting the period of outdoor work between warm-ups.

Know the signs

Make sure you can recognize the early signs of frostbite and hypothermia.

Learn more about working in cold environments in **More resources**.

Staying cool in the heat tips

Wear suitable clothing

Look for fabrics that are designed to reduce heat stress and protect your skin from the sun.

Adjust your work plan

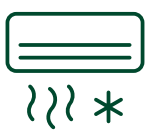
If you can, move your work out of the sun, or schedule it for a cooler day or time.

Take it easy

Minimize physical activity to help avoid overheating. Take time to acclimatize to a hot environment.

Stay hydrated

Bodies need more fluid than usual when it's hot. Make sure you replenish your fluids as you work in the heat.



Work and cool-down

Use a work-rest schedule – where rest is in a cool place – to control your heat exposure.

Know the signs

Make sure you know and can recognize the early symptoms of heat stress.

Learn more about working in hot environments in **More resources**.

More resources

General health and safety

Guide to OHS: Employers booklet
ohs-pubstore.labour.alberta.ca/LI009

Guide to OHS: Supervisors booklet
ohs-pubstore.labour.alberta.ca/LI010

Guide to OHS: Workers booklet
ohs-pubstore.labour.alberta.ca/LI008

Hazard assessment and control handbook
ohs-pubstore.labour.alberta.ca/BP018

Emergency response planning tool kit
ohs-pubstore.labour.alberta.ca/BP040

OHS statistics web page
alberta.ca/ohs-statistics

Right to refuse dangerous work bulletin
ohs-pubstore.labour.alberta.ca/LI049

Driving

Alberta 511 web page
511.alberta.ca

Collision, vehicle and licence statistics web page
alberta.ca/collision-vehicle-licence-statistics

Distracted driving web page
alberta.ca/distracted-driving

Driver and traffic safety web page
alberta.ca/driving-safety-topic

Driving safety bulletin
ohs-pubstore.labour.alberta.ca/BP039

Ergonomics

Ergonomics web page
ohs-pubstore.labour.alberta.ca/ergonomics

Extreme temperatures

Working in extreme cold infographic
ohs-pubstore.labour.alberta.ca/INFO003
Working in extreme heat infographic
ohs-pubstore.labour.alberta.ca/INFO004
Working in summer bulletin
ohs-pubstore.labour.alberta.ca/GS015
Working in winter bulletin
ohs-pubstore.labour.alberta.ca/GS014

Harmful substances

Hazards: biological web page
ohs-pubstore.labour.alberta.ca/biological
Hazards: chemical web page
ohs-pubstore.labour.alberta.ca/chemical
WHMIS 2025: Information for Workers booklet
ohs-pubstore.labour.alberta.ca/CH007

Impairment

Impairment in the workplace bulletin
ohs-pubstore.labour.alberta.ca/BP033

Indoor air quality

Indoor air quality bulletin
ohs-pubstore.labour.alberta.ca/GH014

Noise

Noise at the work site bulletin
ohs-pubstore.labour.alberta.ca/HS003

Objects and equipment

Excavations: Cutting back walls bulletin
ohs-pubstore.labour.alberta.ca/EXCV001

Excavations: Temporary protective structures bulletin
ohs-pubstore.labour.alberta.ca/EXCV002

Positive stop or limiting devices and multiple-overhead-crane lifts bulletin
ohs-pubstore.labour.alberta.ca/CRA001

Psychosocial hazards

Psychosocial hazards web page
ohs-pubstore.labour.alberta.ca/psychosocial

Slips, trips and falls

Do the Penguin Walk Alberta Health Services animation
penguinwalk.ca

Slips, trips and falls web page
ohs-pubstore.labour.alberta.ca/slips-trips-falls

Working alone

Working alone bulletin
ohs-pubstore.labour.alberta.ca/WA002

OHS legislation

This handbook is current to July 2024.

It references:

- *Occupational Health and Safety Act* (current as of November 16, 2022)
- Occupational Health and Safety Regulation (current as of March 31, 2023)
- Occupational Health and Safety Code (current as of March 31, 2023)

You can download the current occupational health and safety laws or access them as searchable legislation at:

alberta.ca/ohs-act-regulation-code.aspx

You can buy official printed versions of the *Occupational Health and Safety Act*, Regulation and Code Handbook from:

alberta.ca/alberta-kings-printer.aspx

780-427-4952
(Toll-free in Alberta: 310-0000 before the phone number)

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Toll-free in Alberta	1-800-232-7215

Online

Website
Alberta.ca/ohs

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ohs-pubstore.labour.alberta.ca/BP042

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