

Health & Safety

SST documents

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Rights and Obligations

Rights and Obligations



The assumption of responsibility for occupational health and safety by employers and workers is the essential foundation of a good preventive approach. Prevention in the workplace is a common obligation. In fact, the Act respecting occupational health and safety specifies in Article 49 and in Article 5 the rights of each of the parties. Let's take a look at the obligations of both parties:

Employer Obligations

- Identify, control and eliminate hazards for workers.
- Provide facilities with equipment, tools and safe work methods and make sure the worker uses them.
- Inform workers of the risks associated with their employment.
- Give workers the necessary training to work safely.
- Oversee the work of employees and ensure that safety standards are met.
- Provide on-site first aid services.
- Establish a prevention program (mandatory for any company targeted by regulation).
- And more ...



Employee Obligations

- Take the necessary steps to protect your health, your safety and that of those around you at work
- Participate in the identification and elimination of risks at work.
- Become aware of the prevention program.
- Collaborate with the health and safety committee.
- You submit to legally required medical examinations.



Employee Rights

- ✓ Get working conditions that preserve your health and safety at work.
- ✓ Receive health and safety information and advice.
- ✓ Receive adequate training and supervision.
- ✓ Have access to preventive health services
- ✓ Refuse to perform a task if you believe that it may be a danger to your health or that of someone else.
- ✓ If you are pregnant or breastfeeding, be assigned to tasks that are safe for you and the child.

LABOUR STANDARDS	Employee responsibilities	Main employer obligations		Labour standards, minimum compliance requirements
	<ul style="list-style-type: none"> Respect the conditions agreed on with the employer by providing the expected work performance Record your hours worked and keep your pay stubs 	<ul style="list-style-type: none"> Pay all hours worked and other monetary benefits (e.g., overtime, vacation pay and holidays), even during trial periods or training Keep a payroll record and pay slip for each employee so the calculation of salary and deductions can be verified 	<ul style="list-style-type: none"> Prevent workplace harassment (psychological and sexual) and put an end to any harassment situation brought to the employer's attention. For that purpose, establish a prevention and complaint-processing policy and distribute it to staff Within the prescribed deadlines, provide written notice to an employee who is dismissed, fired or laid off for six months or more 	<p>The labour standards set the minimal conditions that Québec employers must provide their employees. Employers can offer better working conditions than the minimum standards set out in the Act respecting labour standards, but they can never offer less. The standards deal with salaries, pay slips, work schedules, holidays (statutory holidays, vacation, etc.), absences (sick days, family days, etc.) and employment termination.</p>
PAY EQUITY	Employee responsibilities	Main obligations of an employer whose enterprise has ten or more employees		Pay equity, recognizing female jobs at their fair value
	<ul style="list-style-type: none"> Ensure that characteristics of traditionally female jobs are evaluated at their fair value Be aware of posted results and, if appropriate, provide feedback 	<ul style="list-style-type: none"> Conduct a pay equity exercise Maintain pay equity by conducting an audit every five years Complete the Déclaration de l'employeur en matière d'équité salariale 	<ul style="list-style-type: none"> For smaller enterprises: calculate the number of employees in the enterprise every year. As soon as the enterprise reaches an average of ten employees, comply with the main obligations in the left column 	<p>Some characteristics of jobs predominantly or traditionally held by women are often underestimated or ignored, resulting in remuneration that does not reflect the fair value of these jobs. The Pay Equity Act requires that employers provide remuneration for traditionally female occupations that is equitable to that given for traditionally male occupations, even when the jobs are different.</p>
OCCUPATIONAL HEALTH AND SAFETY	Main employee obligations	Main employer obligations		Occupational health and safety: promoting greater responsibility in the workplace
	<ul style="list-style-type: none"> Participate in identifying and eliminating risks that could affect health and safety in the workplace Take the necessary measures to protect your health, safety and physical well-being (e.g., by wearing the protective gear provided by your employer) Never put at risk the health and safety of people in your workplace or in your proximity 	<ul style="list-style-type: none"> Take necessary measures to protect the health and ensure the safety and physical well-being of employees. Employers must: <ul style="list-style-type: none"> Clearly inform employees on work-related hazards and provide the supervision, training and instruction required for the safe performance of their duties Ensure the safety of the equipment and facilities under their responsibility Ensure the safety of work organization, methods and techniques 	<ul style="list-style-type: none"> Use methods and techniques to detect, control and eliminate hazards Provide employees with all necessary measures and individual protective gear, free of charge, and ensure their use by employees Register with the CNESST for workplace health and safety Pay Revenu Québec the insurance premiums in periodic installments Issue a <i>Déclaration des salaires</i> once a year and submit it by March 15 	<p>The workplace health and safety system aims to prevent work-related accidents and occupational diseases by eliminating hazards in the workplace. The responsibility is shared by employers and employees. Under the system, employees who sustain a work-related injury or contract an occupational disease are entitled to income replacement benefits, other benefits, medical support (e.g., care and treatment) and rehabilitation services required by their occupational injury. The system also provides employment protection. As the administrator of this system, the CNESST ensures its financing through premiums collected from employers. The CNESST therefore fulfills a public insurer's role.</p>

Manual Handling of material

MANUAL HANDLING OF MATERIAL

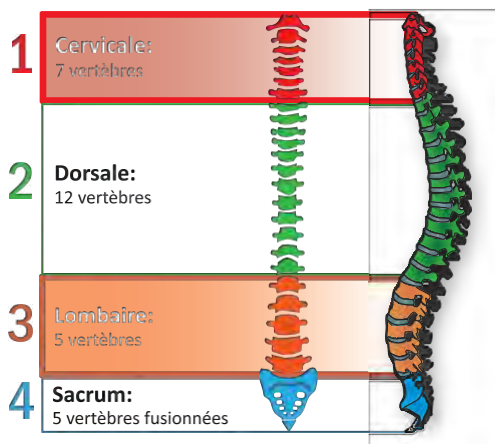


The purpose of this information is to understand the anatomy of the back, its physiology and the dangers associated with having a bad posture. The reader will learn different methods to use to avoid back pain, how to safely handle loads and simple exercises that can be performed to prevent injuries.

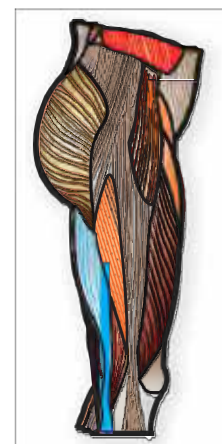
Part 1: Anatomy, physiology and back pain

1. Anatomy and physiology

- The cervical and lumbar parts of the spinal cord are most commonly injured because most movement is located in these regions.
- Thigh muscles are the largest and most powerful muscles in our bodies. We must take advantage of these when lifting heavy loads and avoid using our back muscles which are weaker and more fragile.



Thigh Anatomy

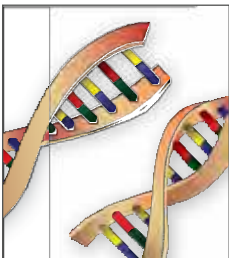


MANUAL HANDLING OF MATERIAL



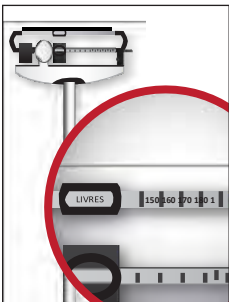
• **Back Pain**

- Factors that can cause back pain include:
 - » Handling a heavy load
 - » Surpassing your body's physical limits
 - » Torso-flexing or torso-bending
 - » Trying to carry more than you normally do
 - » Ignoring the safety precautions
 - » Not using tools to help with heavier or larger loads
 - » Frequent bad posture in the work place
- It is vital that you apply the safety measures to keep your back strong and healthy.



• **Risk Factors**

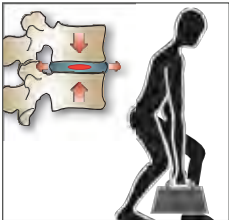
- **Genetics :**
 - » Family history of back pain can make you susceptible to back pain.
- **Physical condition :**
 - » The risk of a lumbar injury is high in smokers than in non-smokers.
- **Body weight:**
 - » Carrying extra weight on your body can cause a strain on your vertebra which makes the entirety of the spinal cord vulnerable. Maintaining a healthy weight and body shape can help prevent back injuries.
- **Work Experience :**
 - » It is very important to learn about the risks associated with a new task during a change of work tasks.



MANUAL HANDLING OF MATERIAL



Part 2: Biomechanics and body posture



1. Biomechanics

- Keeping a straight back is the posture you should have when lifting a load, because the weight of what you are carrying will be distributed equally on your spinal cord.



2. Workplace postures

- **Sitting :**
 - » It is important to adjust your desk chair to a neutral position and comfortably keep your back straight.
- **Torsion :**
 - » Avoid twisting your spine, because this creates uneven weight distribution and strain on your vertebra. It is recommended to always face your work station and to only move your feet.



- **Keeping the load close to your body is also an important precaution to keep in mind as it requires less work from your back muscles.**



- **Avoid being asymmetrical :**
 - » When your body is not positioned symmetrically, this creates strain on one side of your body.
- **It is recommender to push a load rather than pull it.**
- **Statique standing position :**
 - » A good standing posture includes a wide stance, toes pointed outwards and equally distributed body weight.

MANUAL HANDLING OF MATERIAL



- **Standing for long periods of time:**
 - » To help ease the tension, it is recommended that you place one leg in front of the other and lightly bend your knee or use a tool such as a footboard.
 - » A bench permitting a sitting-standing position may be used.
 - » Standing mats are also a tool that may be used.

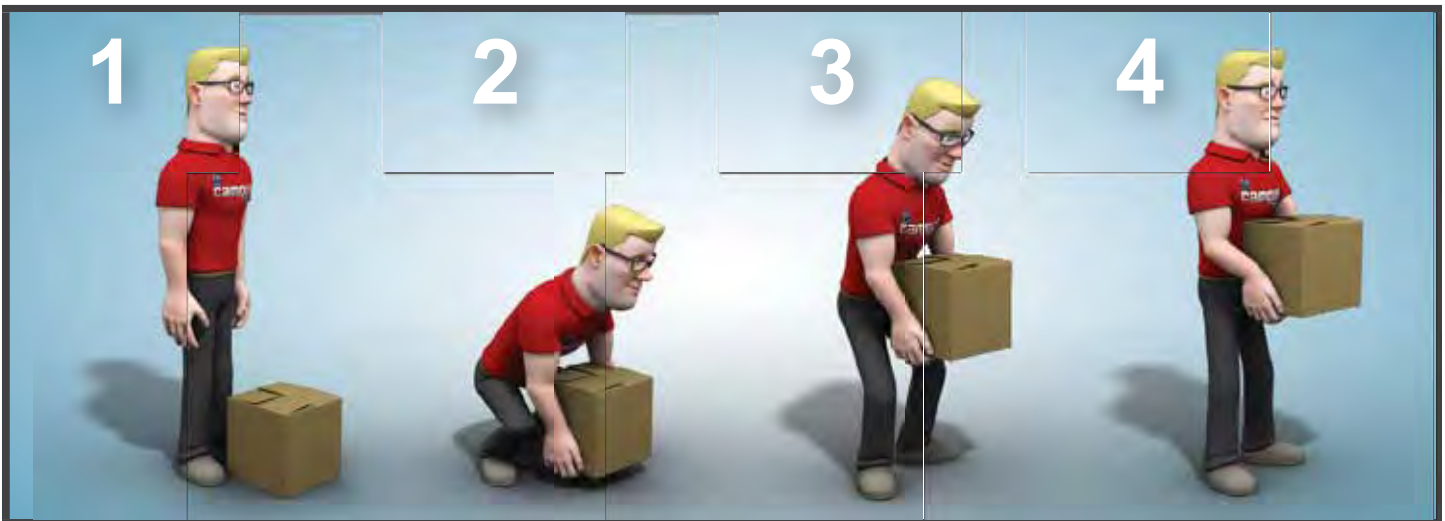
- **Dynamic standing position :**
 - » A straight back with your knees lightly bent is the recommended posture.



- **Work near the ground :**
 - » It is recommended that you place only one knee on the ground while leaning with one arm or to crouch and sit on your heels.

3. Handling techniques

- **The half-squat technique :**

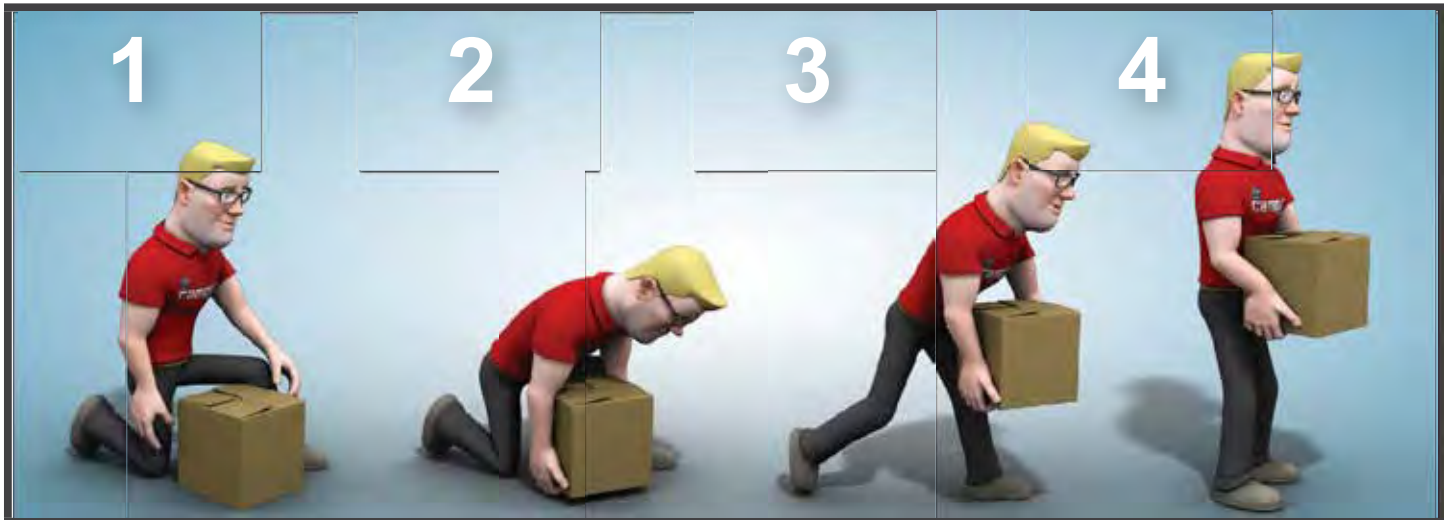


» Avantages	» Disadvantages
<ul style="list-style-type: none">» Safe method for lifting objects» Enables the use of your stronger thigh muscles» Ideal for larger loads	<ul style="list-style-type: none">» Useless for smaller loads» Avoid when lifting loads of large volume» Can be difficult on your knees and ankles

MANUAL HANDLING OF MATERIAL



- The lunging technique :



» Avantages	» Désavantages
<ul style="list-style-type: none">» Safe for imposing loads» Enables the use of your stronger thigh muscles» Encourages a straight spine	<ul style="list-style-type: none">» Most physical force is coming from only one leg» Hard on the knees and ankles

LA MANUTENTION

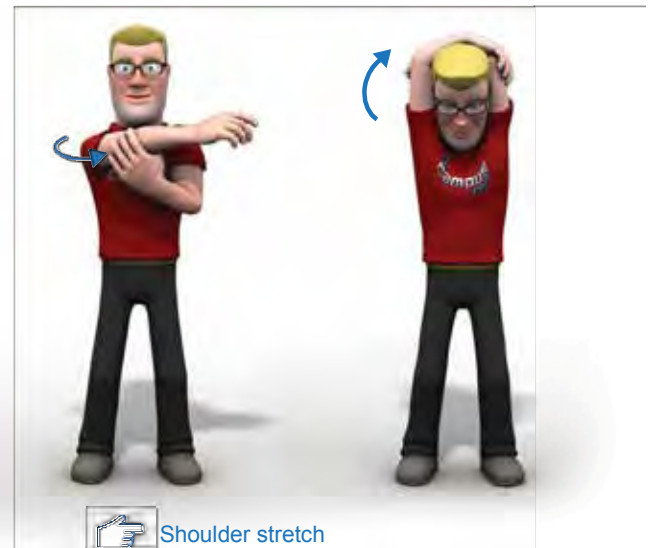
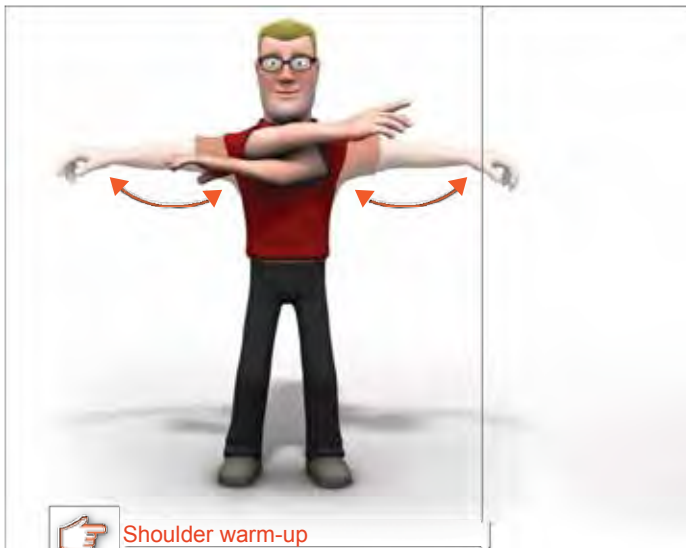
MANUELLE DES CHARGES

Part 3 : Preventive Exercises

1. The Exercises

- The difference between a warm-up and a stretch:

» Warm-up : Before starting your shift	» Stretch : During and after your shift
<ul style="list-style-type: none">» Prepares your body to perform it's work» Raises your muscles temperature	<ul style="list-style-type: none">» Increases flexibility» Promote recovery» Ease muscle pain» Repetitive slow and steady stretches are recommended



LA MANUTENTION

MANUELLE DES CHARGES



2. Home Stretches

• **Exercise 1 :**

- » Keep your head and back against the ground and pull your knees towards your chest.
- » Take deep breathes and hold the position.



• **Exercise 2 :**

- » Turn your head to the right, bend your right leg, push down on your right knee with your left hand.
- » Hold this position while taking deep breathes.
- » Slowly return to a neutral position.
- » Repeat on the other side.



• **Exercise 3 :**

- » Bring up your knee towards your shoulder with your hands.
- » Hold the position for a couple of seconds while taking deep breathes, and slowly release your leg.
- » Repeat with the other leg.



• **Exercise 4 :**

- » Lower the top of your body towards the ground while stretching your hands as far forward as possible to elongate your body.
- » While staying on your heels, hold the position for a short while as you take deep breathes.
- » From this position, slide your torso forward and lower your hips to the ground to perform a “cobra” stretch. Hold this position as you take deep breathes.



• **Exercise 5 :**

- » Pull your heel towards your buttocks with the same hand as the leg that is bent.
- » Hold this position while taking deep breathes, slowly release and perform the stretch on the opposite side.
- » You should be feeling a stretch in your thigh.



• **Physical Activity :**

- » Maintaining a good physical condition helps to significantly reduce the risks of back injuries or back pain.
- » Aerobic activity (cardiovascular) has a positive impact on rehabilitation of lumbar problems.

Employee Name:

Employee Signature:

Date:

Physical Risks - Noise

Noise

Noise is a physical contaminant in the workplace that can cause health disorders and diseases such as deafness and tinnitus if not controlled. In addition, noise is a stressor that affects the ear and the entire body, it can increase the risk of accidents. In fact, the disturbance linked between workers and attention is diminished.

According to Québec regulations, the noise level allowed for an 8h period is 90 dBA. To understand the different terms used in the concept of noise, it is important to understand these definitions:



NOISE: Set of sounds produced by irregular vibrations. It can be produced by example by tools, machinery and engines.

DECIBEL (dB): Unit of magnitude of noise

FREQUENCY: Number of sound vibrations produced in one second, calculated in Hertz (cycle / second). This unit distinguishes low frequencies (low sound) from high frequencies (high-pitched sound)

INTENSITY LEVEL: corresponds to the amplitude or volume of the sound (low or high).

CONTINUOUS NOISE: Noise that is prolonged over time with a frequency greater than one per second (eg concrete saw, air compressor, generator)

IMPACT NOISE: Noise with a frequency less than or equal to one per second (example: Air hammer, riveter, sealing gun)



Deafness

Prolonged exposure to high levels of noise decreases acuity and causes deterioration of hearing health. Even though the worker may have the impression of adapting to the noise, his ear does not support the effects. The deafness will begin to settle gradually. One of the early warning signs of hearing loss is temporary hearing loss. This hearing loss may become permanent if exposure persists. The damage will then be irreversible.

Phases of Deafness

Latency phase: DEFINITIVE loss of high-pitched sounds (difficult to hear any sound signals)

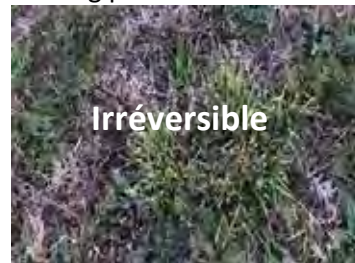
Obvious deafness: the worker hears nothing or almost nothing

The hearing cells do not regenerate. Occupational deafness is **PERMANENT** and **IRREVERSIBLE**. Hearing cells can be compared to turf

If we step once or sometimes on it, it will regenerate.
For example: music show



But if you step on it intensely and repeatedly, the grass will have to be replaced.
For example: jackhammer all day without hearing protection



REMEMBER: THE EARS NEED REST. IF YOU ARE EXPOSED TO HIGH NOISE DURING YOUR WORK AVOID LOUD MUSIC DURING YOUR COMMUTE!!!

Auditory Protection

Hearing protectors are divided into 2 categories: shells and caps. However, it is very important to protect yourself properly. Indeed, two important points are to be considered: the duration of the hearing protection and the adequate adjustment thereof.

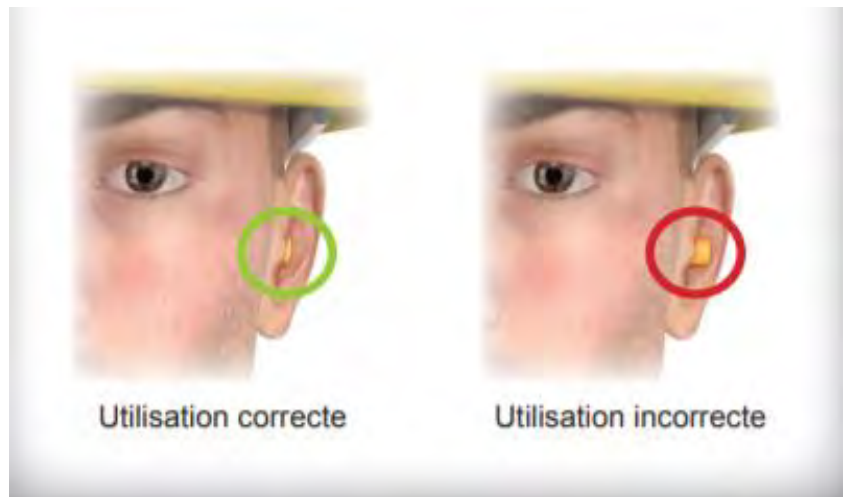
Duration of hearing protection:

The wearing time of the hearing protection is very important! If the hearing protection is not used 100% working time, its effectiveness is diminished. It is important to remove the hearing protection in a quiet place. For example, a worker who does not have his hearing protection in place 5 min before and after each break and dinner, for a total of 30 minutes (6% of 8 hours of work), gets a percentage of 94% for a quarter of 8 hours of work. According to the chart on the right, we can see that this worker will have a maximum protection of only 13 dB.

Maximum protection reduced by half

Protection maximale obtenue du port interrompu d'un protecteur auditif	
Pourcentage d'utilisation	Protection maximale
50 %	3 dB
60 %	4 dB
70 %	5 dB
80 %	7 dB
90 %	10 dB
95 %	13 dB
99 %	20 dB
99,9 %	30 dB

Adjusting your ear plugs :



Employee Name:

Employee Signature:

Date:

Respiratory - Protection

Respiratory Protection



The vast majority of industrial environments expose workers to air pollutants that can very often affect their health and safety. Without effective respiratory protection, the airways can be damaged if the air contains hazardous airborne contaminants; be they gases, vapors, mists, fumes or dusts.

The Occupational Health and Safety Regulations give us exposure values for a large amount of pollutants of all kinds. These values are expressed in parts per million (ppm) and in milligrams per cubic meter (mg / m³). The exposure value is called VEMP (in the case of a normal schedule). The VEMP is one of the values that will ensure that respiratory protection is in place.



Here are some terms that will be used in this explanatory document:



WAEV: Weighted Average Exposure Value. This value refers to the amount of pollutant to which a worker may be exposed for a period of 8 hours a day, 5 days a week.

Gas: Gases are substances which, when subjected to a normal temperature and pressure (20 ° C, 101.3 kPa) or TPN, are in the gaseous state. Example: nitrogen, natural gas, oxygen, etc.

Steam: Vapors, unlike gases, come from substances that are liquid to TPN. The vapors are due to the evaporation of the liquid. Example: organic vapors, acid vapors, etc

Fog: Mists are caused by vapors that condense in fine droplets. Their diameter is small enough to allow them to remain in suspension long enough to be considered as air pollutants. Example: In an area where there is a lot of machinery, the oil from these machines can be sprayed and suspended.

Smokes: Fumes consist of particles so small that their behavior is similar to gases and vapors. They are very often caused by the incomplete combustion of various materials. Example: Welding fumes

Dust: When talking about dust in respiratory protection, we refer to dust whose diameter is small enough that they can penetrate deep into the respiratory system and cause problems. They may also be substances that pose a risk to health. Example: silica, asbestos, cotton dust, etc.

Oxygen deficiency: When the concentration is below 19.5%

Types of Breathing Aparatus

1- Air Purification

These tools clean the air of its contaminants when the worker breathes by passing it through a filtered element: filter, cartridge, filter box. They can also be motorized. It is understood, this type of aparatus can not be used where there is less than 19.5% oxygen.



In this type of device, for the air to be breathable, it must pass through the filter or other purifying element.

Particle Filters

As the air passes through the filters, several layers of filter media capture and retain particles, fumes and mists.



What do the indications on the filters mean



N → Does **N**ot resist oil

R → Oil **R**esistant

P → Oil **P**roof

100 → 99.97% efficient

99 → 99% d'efficient

95 → 95% d'efficient

The oil weakens the effectiveness of some filtering materials. Therefore, the presence of oil is decisive for the efficiency of the filters. The letters N, R and P indicate the resistance of a filter to its degradation.



When to change your filter

If the breathing becomes difficult, it may be due to too much material accumulation and they will have to be replaced.

Respiratory Protection



Cartridges

As air passes through the cartridge, a contaminant-specific adsorbent captures the contaminant. For example, activated carbon is used to capture organic vapors.

When using a cartridge mask, if abnormal symptoms are detected, it is vital to follow the following instructions:

- ✓ leave the workspace immediately;
- ✓ inform his superior;
- ✓ ensure that the cartridge is suitable for the contaminant;
- ✓ make sure that the cartridge is not saturated (breakdown);
- ✓ the adhesion of the mask on the face is good (leak test);

In some cases, it is possible to have a combination of filters and cartridges. When we encounter an environment containing toxic gas and dust, it is important to protect ourselves from both. That's why adapters are available to add a filter to a cartridge.

Please do not improvise!



How to choose the right cartridges

The cartridges must be chosen according to the contaminant. It is always necessary to validate with a qualified person for the correct choice of cartridges. Because sometimes, there may be more than one contaminant in the air.



When to change cartridges

When the cartridge is saturated, when the adsorbent is no longer effective, it is time to change it. This period necessary for saturation is called breakdown time. This breakdown time must have been determined by a qualified person following a sampling. Sometimes, some information written on the cartridges can allow us to determine more precisely their breakdown time. For example, some cartridges are marked with an end-of-service indicator, such as that for mercury, for example. We also write on the cartridges their expiry date, thus ensuring the effectiveness of the filter elements.

Respiratory Protection



2- Air Supply

These respirators provide the user with fresh air through air ducts or compressed air cylinders. There are two main types of appliances in this category: air-supplied appliances and stand-alone appliances.

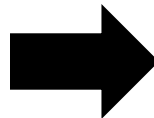


Air supply devices are connected to isolated air sources, often in a room where the air is not contaminated. A compressor pulls air, filters and redirects to the respirator. While standalone devices supply the user with fresh or regenerated air from compressed air cylinders or an oxygen production system. The best example is the system that firefighters use.



How to put on the APR

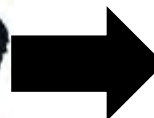
1- Place the mask on the chin and pull back on the nose



2- Place the support straps on the top of the head.



3- Tie the support straps behind the head



4 – Tighten the support straps behind the head and in front of the mask



Adjusting the APR

The fit of the mask with the worker's face is very important. If the fit is not perfect, the efficiency of the mask is weakened. Therefore it is important to pay particular attention to certain elements that could compromise the adhesion of the mask on the face such as beard, PPE, physiognomy, communication devices, hot atmosphere etc.

Respiratory Protection



Why it is necessary to know one's responsibilities in order to ensure an effective wearing of the APR:

- ✓ Be well shaven and avoid using any object that could affect the tightness of the mask.
- ✓ Make sure the mask is clean and in good condition.
- ✓ Perform pressure and vacuum adjustment tests before each use.
- ✓ Report any deficiencies to their supervisor.
- ✓ Use the mask according to the instructions received.

Testing your adjustments

Negative Pressure:

Cover the filter holes with your hands. Inhale slowly and hold your breath 5 seconds. The facial piece will sag.



Maintenance of the APR

The maintenance of respirators is as simple as it is important. Of course, disposable masks do not require any maintenance. For all other types of masks, it is essential to keep them clean and in good condition. After each use, it is necessary to clean and disinfect the mask with wet cloths designed specifically for this purpose.

Important: It is strictly forbidden to disinfect the masks with a solution containing alcohol. Alcohol has reverse effects on the rubber constituting the masks.

Once the masks are cleaned and are no longer used indefinitely, it is very important to store them properly.

The solution to consider in order to protect your respiratory protection is to put them in bags provided for this purpose.

The bags must be strong and able to seal, and the filter elements must be stored separately.

Why? First, because the filter elements can contaminate the mask and second, because the cartridges continue to act if they are exposed to the air, which will distort the service life of the cartridges.



Employee Name:

Employee Signature:

Date:

Safe use of Step Ladder and Ladders

Safe use of Step Ladders and Ladders



Ladders and stepladders are frequently used for various tasks in the workplace. However, users are often unaware of the risks their use represents, which can lead to many workplace accidents. This training will allow you to familiarize yourself with the steps to follow in order to work safely with ladders and stepstools and thus reducing the risk of accidents.

1. Recognize different types of ladders and step stools

- The materials
 - The glass fiber (high resistance to the load to bear, does not conduct electricity, heavier than other materials, can be of various colors)
 - Aluminum (lightness, affordable price, electricity conductor)
 - The wood (does not conduct electricity, rigidity is questioned)
- The grades
 - Grade 1: Buildings and industry use
 - Grade 2: Commercial and Agricultural Use
 - Grade 3: Domestic use
- It's maximum capacity (heaviest weight it can withstand)
- Additional features
 - A sliding section on a ladder to increase its reach
 - A platform that replaces the last steps of a stepladder
 - Foldable sections to configure the ladder for work in confined spaces
 - Leveling feet
 - Wall spacers

 - A ledge to hold a toolbox



Safe use of Step Ladders and Ladders



1. Determining which Equipment to Use

- The area of the activity
 - Choose the appropriate grade or a higher grade (commercial / agricultural or building / industry grade)
- The applied load
 - Consider the load that will be applied to the ladder or stepladder in order to choose the adequate nominal capacity
- The tasks to be performed
 - Plan the tasks to be performed (electricity, height, additional device)

Reminder: A 3rd grade ladder or stepladder should never be used at work. In order to avoid the risk of injury, health and safety specialists give priority 1st grade equipment, regardless of the sector of activity.



2. Inspecting the ladders and stepstool



- Examine for cracks, dents, deformations, and other imperfections.
- Check that all fasteners are present and tight.
- Check that the safety feet are securely fastened and that the non-slip rubber pads are present and in good condition.
- Check that the steps, horizontal supports and supports are present, solid and in perfect condition.
- Check that the "Tool Holder" moves freely, is positioned correctly and that its attachments are solid.
- Check that the locking device moves freely, locks properly and that its fasteners are solid.

Safe use of Step Ladders and Ladders



- Examine support plan and sliding plane amounts for dents, cracks, and other imperfections.
- Check that the protective end caps and sliding guides are free of cracks, chips and wear marks.
- Check that all fasteners are present and secure.
- Examine the rope and pull pulley to make sure the rope moves freely and is not efficient, tied or stretched. Check that the support plan and sliding plan are perfectly straight.
- Examine the feet to determine if the skid pads are worn and if fasteners are loose or missing.
- Check that the locking devices rotate freely and are in good condition.

3. Securely install ladders and step stools

- When moving, the ladder or stepladder must always be parallel to the ground.
- When choosing the location, be sure to always maintain a safe distance from electrical installations.
- Never install the equipment in front of a door unless it is padlocked or have a supervisor on the other side of the door.
- Check if colleagues will have to circulate nearby (provide a gatekeeper or signalman).
- Plan for a safe clearance (scrap or materials at the base of the ladder).
- When the soil in the chosen location is unstable, use a plank to stabilize the base of the ladder.
- The skids of some ladders can be raised to anchor them in the ground. Stakes may also be planted at the base of the stakes to prevent them from rolling back.
- Make sure that the top and bottom of the ladder support the points of contact firmly.
- The body of the ladder can be securely attached to a fixed structure with sufficient resistance using a rope or stabilizer strap.
- If the ladder is used as a means of access for a mezzanine or a roof, its head must necessarily exceed the floor by at least three feet (90 cm) in order to be able to leave the ladder safely.
- Always maintain a ratio of 4: 1 between the height of the fulcrum and the base of the ladder.
- When installing a step ladder, make sure the studs are fully open and all four legs are resting on the ground firmly.

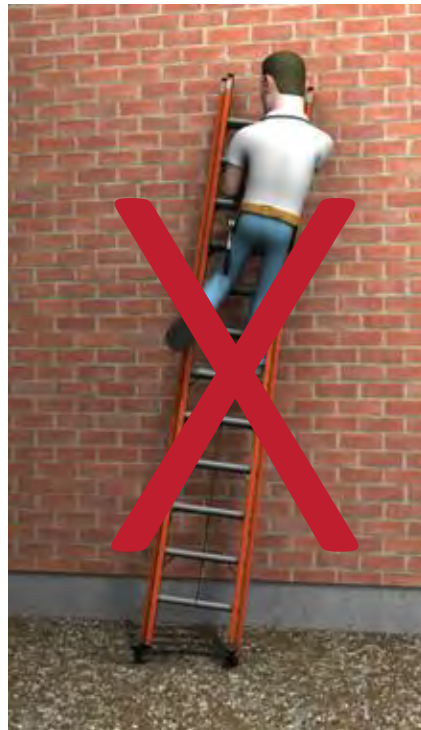
Attention: Never use a ladder or stepladder on a scaffold or on the forks of a forklift.

Safe use of Step Ladders and Ladders



4. Know how to safely maneuver on the equipment

- Before climbing, make sure there are no slippery substances on any of the rungs or under your shoes.
- Face the ladder at all times and always use the three-point technique.
- Never climb or drop equipment into your hands. Hang your tools instead on your belt.
- Take your time on the ascent and descent. Too fast movements can flip the material and create a springboard effect.
- You can also ask for help from a colleague to help you keep the equipment securely in place during ascent and descent.
- Your center of gravity should always be between the two uprights of the ladder or stepladder to ensure stability.
- A ladder or stepladder must be used by one worker at a time.
- Horizontal supports and stepladder locks are not designed to support you
- It is forbidden to climb on the last step of a stepladder. Also, the last three steps should never be used.
- A stepladder is not designed to be used as a ladder. The nominal capacity is not calculated based on such use.
- Under no circumstances should you hop with the equipment in order to move the base.
- It is forbidden to use a ladder horizontally to make it a platform.



Safe use of Step Ladders and Ladders



When the job is done

- Plan for adequate storage at the end of the work, making sure ladders and step stools are protected from shocks and bad weather that can seriously damage equipment.
- Regularly inspect ladders and step ladders with a grid to ensure compliance at all times. These inspections must be signed, dated and indexed.
- Report any signs of deterioration to the immediate supervisor.



Employee Name:

Employee Signature:

Date:

Working in heights - Harnest

Falls from an elevated height affect several sectors of activity. Regardless of the height, almost certainly, falls cause serious injuries, significant sequelae and sometimes the death of the worker.

If the fall hazard cannot be eliminated at the source in a satisfactory manner, the regulations in place indicate the wearing of personal protective equipment. We must wear the safety harness when we are exposed to a fall of more than 3 meters from our working position.

A few interesting facts :

- Deaths due to a fall from height are not all due to great heights:
 - 64% falls less than 9 meters
 - 10% falls less than 3 meters
- More than 69% of fall victims report that their accident could have been avoided.
- The impact speed on the ground of a worker falling from 3 meters is 27km / h.
- The longest periods of absence from work are associated with the drop, the highest number of hospitalizations and permanent disabilities, and the highest average cost per accident.



According to the Act respecting occupational health and safety (OHS), section 49:

2. *The worker must take the necessary measures to protect his health, safety and physical integrity;*
3. *The worker must be careful not to endanger the health, safety or physical well-being of other persons in or near workplaces;*

While section 51 dictates the obligations of the employer:

3. *The employer must take the necessary measures to protect the health and ensure the safety and physical integrity of the worker. He must in particular:*
5. *Use methods and techniques to identify, control and eliminate risks to the health and safety of the worker;*

The law is clear, working safely is a **common obligation**! It is important to understand how to properly use protective equipment when working.

Harness

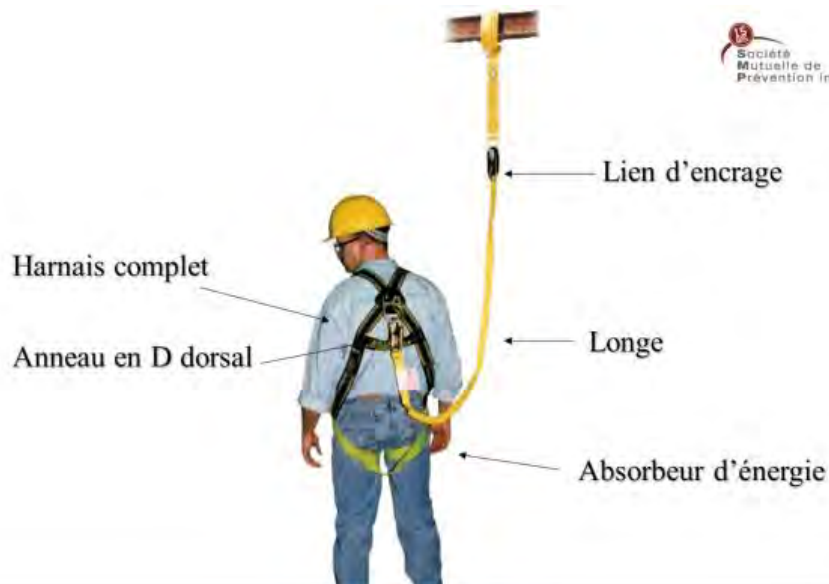
Harness Components



Safety harness: A safety harness must comply with the standard CAN / CSA Z259.10-M90 Safety Harness and be used with one of the following systems:

- (1) An energy absorber to which a lanyard is connected that does not allow a free fall of more than 1.2 meters;
- (2) A winder-unwinder which includes or is connected to an energy absorber. The harness is made of a set of adjustable straps to maintain the torso and pelvic area. It is designed to support the user during and after the accidental fall and during rescue operations.

Components of an anti-fall system



Harness

Step 1 :

Hold the harness by the back ring in a D shape and shake the harness so that all straps fall into place.



Étape 2 :

Unbuckle the chest, waist or thigh straps.



Step 3 :

Pass the straps on the shoulders so that the back D ring is in the middle back between the shoulder blades.



Step 4 :

Connect the straps of the shorts and the belt if the harness is equipped.



Step 5 :

Connect the chest strap to center of the chest. Pull to keep straps tight.



Step 6 :

Make the final adjustments for better comfort and place the excess straps in the retaining rings



Adjusting the Harness

Do not over tighten the straps against the body. It must remain a freedom of movement. The lower part of the harness should wrap the pelvis and one should avoid having adjustment loops in the groin area.

For the upper part, make sure to have the "D" shaped ring slightly under the shoulder blades. The straps must apply correctly to the torso.

Serious injury, choking, slipping out of the safety harness following a fall may result in poorly adjusted straps. The harness should be snug while remaining comfortable.

Inspecting the Harness

Harnesses and fittings must be inspected daily by workers and inspected by a supplier or qualified person 1 X per year (or at closer intervals if the equipment is used in an industrial setting and subjected to abrasive or corrosive substances). Here are some things to check when inspecting them:

- ✓ Examine loops, D-rings, back pads and bystanders. They must not be damaged, broken or deformed, or have sharp edges, burrs, cracks, signs of wear or corrosion
- ✓ Inspect the straps. They must not have any fraying, tearing or broken fibers and must not show signs of abrasion, traces of mold, burning or discoloration. According to the ASP Construction, equipment must be rejected as soon as a hole or burn of more than 2 mm (1/16 in.) is found on the lanyards, shoulder straps or waders. **However, the presence of more than two perforations on the same strap or the backstraps (retained by the D-ring) notched, regardless of the depth of the cut, will be rejected.**

IF A HARNESS HAS STOPPED A FALL, IT MUST BE RETURNED TO SELLER OR MANUFACTURER FOR INSPECTION. In addition, if the manufacturer's label is missing or illegible, they must be removed from service.

The label must contain these points:

- 1) Harness size
- 2) Name of the manufacturer or supplier
- 3) Date of manufacture
- 4) Model number
- 5) Classification (A, D, E, P, L)
- 6) CSA seal
- 7) Space for personal identification



Care and Handling

- ✓ Wash by hand or machine, with a laundry detergent and rinse with clean water (maximum temperature 30 ° C),
- ✓ Dry in a dark, ventilated and slightly heated place (Do not dry in the sun)
- ✓ NEVER modify the harness or its components in a dark, airy and slightly heated place (Do not dry in the sun)
- ✓ NEVER modify the harness or its components

Employee Name:

Employee Signature:

Date:

Thermal Stress - Heat

Thermal stress is the effect of heat on the body. A healthy body maintains its internal temperature at 37 degrees Celsius. When a worker is exposed to a hot environment and a heavy workload, one can see his internal temperature increase. At around 41 ° C, an imbalance of the temperature control system occurs, and can cause a heat stroke. It can occur abruptly when performing physical work in a hot environment. In the absence of immediate and energetic cooling measures, hyperthermia will progress, causing irreversible damage to vital organs and possibly death.



What causes a heat stroke?

Heat stroke occurs when the body has used up its water and salt. At this point, it is no longer possible for the body to regulate its internal temperature. Thus, the perspiration ceases and the internal temperature of the body increases.



What are the symptoms of a heat stroke?

It is important to know the symptoms related to heat stroke to intervene with the affected people.

- ✓ **Fatigue:** This is the most common effect of heat one is in a state of weariness, irritability, exhaustion.
- ✓ **Dizziness and lightheadedness:** Lack of hydration
- ✓ **Rashes:** Pimples and redness, along with a tingling or tingling sensation, may occur especially when the skin has been wet with sweat for a prolonged period of time.
- ✓ **Inconsistent remarks, loss of balance and loss of consciousness**
- ✓ **Heat cramp:** It is the excessive loss of mineral salts by perspiration can cause spasmodic and painful contractions of the muscles (arms, legs and abdomen).



How can you prevent a heat stroke?

- ✓ Drink at least one glass of water every 20 minutes.
- ✓ Wear light, light-colored clothing, preferably cotton, to help evaporation of sweat.
- ✓ Have your head covered when working outdoors.
- ✓ Adjust the work rate according to its tolerance to heat.
- ✓ Take breaks in the shade or in a cool place.
- ✓ Rotate tasks and promote teamwork when possible



Recommended Beverages

- 1- Water
- 2- Alternate between water and a sports drink
- 3- Alternate between water and vegetable juice

Beverages to Avoid

- 1- Alcohol
- 2- Soda
- 3- Coffee or other drinks containing caffeine
- 4- Energy drinks

In addition, cold drinks are absolutely to be avoided:

- ✓ Because they require extra energy for the cold drink to be brought to body temperature.
- ✓ Because there is a risk of stomach cramps and chronic gastritis.

Employee Name:

Employee Signature:

Date:

Thermal Stress - Cold

The effects of cold are felt by the combination of temperature and wind. When the body is exposed to cold, there is a risk that heat loss will exceed gains and body temperature will drop abnormally. This is called a thermal stress by the cold.

Shivering is a manifestation of the thermoregulatory mechanism (temperature regulating function to warm the body). It must be interpreted as an alarm signal and lead to immediate preventive action.



What are the risks associated with thermal stress caused by cold?

Frostbite

Extreme temperatures can damage skin cells and even destroy them. In the case of mild or superficial frostbite, skin alone is usually affected. Lesions are mainly in the face and extremities. When there is severe frostbite, the tissues under the epidermis are affected. The affected part is usually white, cold, hard and insensitive to the touch.

Foot of immersion- Foot of the trenches

This problem is accompanied by foot pain with swelling. The foot and toes appear pale, moist, cold, and hard. Symptoms are a feeling of cold feet, a heavy and staggering gait, tingling and tickling, redness and swelling. This condition should be handled as soon as possible.

Decrease in manual dexterity and concentration

Increased risk of incidence.

Hypothermia

Normal body temperature is around 37 degrees Celsius. However, if the body is exposed to cooling, drafts or low temperatures, it is unable to compensate for heat loss and its temperature begins to drop. There is hypothermia when the body temperature is below 36 degrees Celsius. Risk of serious injury and death.



How can this be prevented?

- ✓ Heated shelters;
- ✓ Handles and metal bars covered with thermal insulation;
- ✓ Clothing (for body and extremities) designed for temperature
- ✓ Many layers of clothing insulate better than one thick garment because of layers of air that provide good insulating properties. Clothing should not interfere with evaporation of sweat
- ✓ Impervious garment if work is done with moisture.
- ✓ Cover the head to limit heat loss through this part of the body (40% and more);
- ✓ A diet high in fat and carbohydrates (example: pasta, rice, potatoes, dairy products) and
- ✓ Absorption of hot drinks

Here is a table from the CNESST which indicates some first aid means that you can put in place in case of frostbite, foot immersions or hyperthermia:

Problème de santé et symptômes	Premiers secours
<p>Les gelures*</p> <p>Sensation de picotement, engourdissement progressif, perte graduelle de la sensibilité progressant vers une insensibilité totale. La peau devient blanche, glacée et cireuse.</p>	<p>Lorsque la gelure est superficielle, réchauffez localement et lentement les parties atteintes par des compresses tièdes. Ne pas frictionner les parties gelées (les lésions risquent d'être aggravées à cause des cristaux de glace qui se sont formés dans les tissus). Le réchauffement par des exercices n'est pas recommandé une fois la gelure prise à cause de la possibilité d'aggravation des effets. Ne pas faire marcher la victime. S'il n'y a pas de retour de sensibilité ou de circulation, il faut avoir recours à l'aide médicale.</p>
<p>Le pied d'immersion – le pied des tranchées</p> <p>Douleur intense au pied, avec enflure. La décoloration de la peau peut être causée par une longue immersion dans l'eau froide.</p>	<p>Réchauffez et séchez le pied. Prévenez toute autre exposition et ayez recours à une aide médicale.</p>
<p>L'hypothermie*</p> <p>Extrémités froides et engourdissement au point de provoquer des malaises; grelottement très marqué; baisse de la vigilance, manque de concentration; possibilité de comportement inhabituel ou bizarre; à noter que, lorsque l'hypothermie devient plus grave, le grelottement peut cesser. Sans traitement, il peut y avoir perte de conscience, coma et mort. L'hypothermie peut se produire à des températures au-dessus du point de congélation. La température centrale du corps baisse en dessous de 35 °C.</p>	<p>Limitez la dépense énergétique de la victime au minimum tout en la gardant éveillée. Ne pas la faire marcher, utilisez plutôt une civière. Réchauffez-la dans une pièce chauffée. Procurez-lui des vêtements secs et enveloppez-la dans des couvertures. Ne pas réchauffer les extrémités et le corps en même temps (le retour soudain du sang froid des extrémités vers le cœur peut provoquer un abaissement de la température interne et un choc). Dans les cas plus sérieux, placez la victime dans un sac de couchage avec une autre personne pour favoriser l'échange de chaleur. Donnez des boissons tièdes, sucrées et non alcoolisées. Ayez recours à l'aide médicale pour des conseils ou de l'assistance aussitôt que possible.</p>

Employee Name:

Employee Signature:

Date: