Canadian First Aid Manual Insert - New Brunswick

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New Brunswick Workplace Safety

Occupational Health and Safety Act

The purpose of this Act is to secure workers and self-employed persons from risks to their safety, health and physical or psychological well-being arising out of, or in connection, with activities in their workplace.

Reference

WorkSafeNB | Acts and Regulations[1]

More Information on workplace Safety

Your Rights: WorkSafeNB | Your Rights[2]
First Aid – Employers and Workers: WorkSafeNB | First Aid- Employers and Workers[3]
First Aid - Employer: WorkSafeNB - Employer Information[4]

[1] https://www.worksafenb.ca/policy-and-legal/legal/acts-and-regulations/
[2] https://www.worksafenb.ca/workers/health-safety/your-rights/
[3] https://www.worksafenb.ca/safety-topics/first-aid/first-aid-employers-and-workers/
[4] https://www.worksafenb.ca/safety-topics/first-aid/first-aid-employers-and-workers/

Disease Transmission Risk Management

Risk Management

First Aid Providers must consider how to balance their own safety while providing first aid. There is no one-size-fits-all solution to how this is managed. Some factors to be considered are:

- Proper personal equipment can help decrease the risk to rescuers.
- Rescuers should always assess the risk of providing care. This includes an assessment of their own health status.

Employers have the duty to provide appropriate protective equipment so that rescuers can respond safely.

Protocols when administering First Aid

When administering first aid, apply the following principles to help reduce the risk of disease transmission. These principles do not replace first aid assessment and treatment skills, but rather provide supplemental considerations for use throughout the rescue process.

Scene and risk assessment

- Ensure the scene is safe, manage/mitigate any hazards/risks.
- Rescuers should put on gloves for all first aid interventions.
- It may be reasonable for rescuers to wear facemasks and eye protection when performing first aid if available.
- Minimize the number of people in direct contact with the victim.
- Victims may be encouraged to wear a mask if appropriate and tolerated.
- Victim health history.
    - It is important to pass this information on to EMS, allowing them to provide optimal treatment to the victim.
    - This information may be obtained from the victim, the victim's co-workers, caregiver(s), bystanders, etc.
- Mechanism of injury.
- Continuous scene assessment.

Assessment and treatment

- Put on appropriate Personal Protective Equipment (PPE).
- Assess and treat ABCs.
- Activate EMS as required.
- Treat for shock.
- Prepare the victim for transport – if required.
- Victims may be encouraged to self-treat if possible (e.g., applying direct pressure to bleeding).
- If family members or close contacts are nearby it may be reasonable to see if they would be willing to help provide first aid treatment with guidance from the rescuer.

Post rescue process

- Take care to remove and dispose of PPE in a safe manner.
- Rescuers should properly discard all protective equipment immediately after the rescue and wash their hands.
- Disinfect all surfaces that may have come in contact with the victim or rescuer during treatment (i.e., chair, clipboard, pen, etc.).

- Where required, practice personal decontamination.

Protocols for Administering CPR

- Rescuers should put on gloves for all first aid interventions or, at the latest, immediately after removing a victim from danger if required.
- During a resuscitation event, rescuers should minimize the number of people in direct contact with the victim.
- CPR with ventilations using a Bag Valve Mask (BVM) with a viral filter and one-way valve, or pocket mask with a viral filter and one-way valve, is the preferred technique. The order of preferred ventilation technique is:
    - Bag Valve Mask (BVM) with a viral filter and one-way valve; two rescuers with one rescuer maintaining a tight seal during ventilations and compressions.
    - If no BVM is available, or staff have insufficient training, rescuers may consider mouth-to-mask ventilations using a pocket mask with a viral filter and one-way valve. Two rescuers would perform the resuscitation, with one rescuer maintaining a tight seal on the mask during ventilations and compressions.
    - If only one rescuer is responding, a pocket mask with a viral filter, one-way valve, and head strap may be tightly placed on the victim's face to create a seal.
    - If family members or close contacts are nearby and trained, it may be reasonable to see if they would be willing to provide the ventilations.
- Rescuers must properly discard all protective equipment after the rescue and wash their hands before continuing with their duties.

Personal Protective Equipment

Most Personal Protective Equipment (PPE) components come in different sizes. It is important to stress that PPE is not one-size-fits-all. Proper PPE fit is essential to obtain protection; an incorrect size will not protect the wearer. Employers must ensure that: PPE is available in proper sizes, is clean, workers are trained on its use, fit testing where required, and workers follow established protocols for its use.

- **N95 Mask (non-valve):** reduce transmission of aerosol by 70%, protects from contracting aerosol route infection from others by 99%. N95 masks must be NIOSH (National Institute for Occupational Safety and Health) approved and CE certified. N95 masks must be dry to be effective.
- **Surgical Mask (3-layered):** reduces transmission of aerosol by 50% and protects from contracting aerosol route infection from others by 75%-80%. Surgical masks must be dry to be effective.
- **Non-Surgical Mask:** may be a dust particulate filtration (single use) facemask or a cloth/reusable facemask. These masks must be dry to be effective. Cloth/reusable facemasks must be cleaned appropriately after each use.
- **Eye Protection:** both face shields and personal protective goggles prevent virus exposure of the eye mucosa. Protective goggles must fit the user's facial features and be compatible with the respiratory protection. Protective eyewear may be reused once disinfected.
- **Hand Protection:** non-latex medical exam gloves should be used. Practice hand hygiene after gloves are removed.
- **Body Protection:** where required, long-sleeved water-resistant gowns should be used to prevent body contamination. If water-resistant gowns are not available, remove and launder all clothing once treatment is finished. For both options, practice personal hygiene following use.

- **Bag Valve Mask with viral filter and a one-way valve:** The viral filter or high-efficiency particulate air filter (e.g., HEPA) minimizes the risk of virus spread during ventilations. Viral filters must remain in their original packaging and be dry to be effective.
- **Pocket Mask with a viral filter a one-way valve:** The viral filter or high-efficiency particulate air filter minimizes the risk of virus spread during ventilations. Viral filters must remain in their original packaging and be dry to be effective.

Personal Protective Equipment Disinfection

Proper disposal of single-use equipment and proper disinfection of reusable equipment is necessary for ensuring the safety of both staff and patrons. For proper disinfection of reusable equipment, see manufacturer's specifications. Where no specifications exist, the following ratios are recommended by the Centres for Disease Control and Prevention (CDC):

- A 1:10 dilution ratio for household bleach, or a 1:20 ratio for commercial sodium hypochlorite solution to disinfect reusable PPE (reusable pocket masks, etc.).
- Then let air dry.
- 1 to 10 minutes contact time is recommended.

Reference:

Personal Protective Equipment (PPE)
ohsguide.worksafenb.ca/topic/ppe.html[5]
Glove Removal Procedure
Glove removal procedure | WorkSafeBC[6]
How to Hand Wash
Hand Hygiene: How to Wash Your Hands | WorkSafeBC[7]

[5] https://ohsguide.worksafenb.ca/topic/ppe.html
[6] https://www.worksafebc.com/en/resources/health-safety/ppe-information-sheets/glove-removal-procedure?lang=en
[7] https://www.worksafebc.com/en/resources/health-safety/videos/hand-hygiene-how-to-wash-your-hands?lang=en

Handling of Sharps (Used Needles)

Steps for disposing of used needles:

1. Use a sharps container or sturdy container with a lid. Do not use a glass container.
2. Set the container on a stable surface.
3. Wear thick gloves.
4. Use tongs, pliers, or tweezers to pick up the needle.
5. Point the tip away from you.
6. Do not try to put the cap back on.
7. Put it in the container and tape the lid tightly closed.
8. Wash your hands.
9. Drop off the container at a public health office or pharmacy that accepts used needles.
10. Do not put into a recycling bin.

Call for Help if:

- you are not able to safely pick up a needle.
- many needles in a pile (e.g., in a stairwell or behind a dumpster).
- broken needles scattered on the ground.

If you need help picking up a needle:

- call your regional health authority or
- call your local police or fire/paramedic department.

Chronic Obstructed Pulmonary Disease (COPD)

COPD refers to any ongoing problem with the respiratory system. The lungs' ability to expand and inhale normally has been damaged. COPD patients breathe in response to low oxygen levels. Some COPD patients respond to oxygen with either very slow breathing or complete respiratory arrest. People without COPD breathe in response to high carbon dioxide levels. COPD includes conditions such as Black Lung, Chronic Bronchitis, and Emphysema.

Signs and Symptoms

- History of lung disease.
- Breathlessness upon exertion.
- May breathe through pursed lips.
- May have barrel-like, over expanded chest.

Treatment

- Call 911 or your local emergency number.
- Check the person's airway, breathing, and pulse. If necessary, begin CPR.
- Loosen any tight clothing.
- Get the person their prescribed medicine – if any.
- Continue to monitor the person's breathing and pulse until EMS arrives.
- DO NOT assume that the person's condition is improving if you can no longer hear abnormal breath sounds, such as wheezing.

DO NOT *wait to see if the person's condition improves before getting medical help. Get help immediately.*

Types of Shock

All shock is treated the same way. See pages 35 – 36 of the Canadian First Aid Manual for information on general causes, signs and symptoms, and treatment for shock.

There are five general types of shock. While there are common signs and symptoms for all types of shock, each type has specific signs and symptoms.

Cardiogenic shock

Caused by heart problems, the heart suddenly cannot pump enough blood to meet the body's needs.

Signs & Symptoms

- Severe shortness of breath.
- Sudden, rapid heartbeat (tachycardia).
- Sweating.
- Cold hands or feet.

Hypovolemic shock

Severe blood loss (more than 20% of blood volume) or other fluid loss makes the heart unable to pump enough blood to the body.

Signs & Symptoms

- Confusion.
- Difficulty breathing or fast breathing.
- Excessive sweating.
- Low body temperature.

Anaphylactic shock

This is a sudden, severe, life-threatening allergic reaction that can involve the whole body. Anaphylaxis can happen seconds or minutes after exposure. The immune system releases a flood of chemicals (histamines) that causes a sudden drop in blood pressure and narrowing of the airway. Anaphylactic shock requires immediate medical treatment.

See page 45 of the Canadian First Aid Manual for more information on signs and symptoms, and treatment of anaphylactic shock.

Septic shock

When an infection in your body causes extremely low blood pressure and organ failure due to sepsis. Septic shock requires immediate medical treatment.

Signs & Symptoms

- Confusion or disorientation.
- Diarrhea.

Neurogenic shock:

Caused by damage to the nervous system. The blood vessels stop working properly and do not push enough blood through the body. The blood pools in the blood vessels and the blood pressure drops significantly. Spinal cord and central nervous system injuries are the most common causes.

Signs & Symptoms

- Slow heart rhythm.

- Flushed, warm skin – that goes cold and clammy as shock progresses.

Arteriosclerosis

This is also known as hardening of the arteries. Artery walls that are normally flexible become hard or stiff. It is a gradual process that occurs over many years. There may be no symptoms until the hardening of the arteries leads to complications. Arteriosclerosis increases the risk of a wide range of cardiovascular diseases.

Types of Arteriosclerosis

- *Atherosclerosis*: hardening and narrowing of the large arteries of the body.
- *Medial calcific sclerosis*: increased vessel stiffness in the small to medium-sized arteries caused by calcification deposits.
- *Arteriolosclerosis*: hardening and loss of elasticity of small arteries.

Signs & Symptoms

- Burning or aching feet when at rest.
- Changes in frequency of urination.
- Dizziness.
- Dry, itchy, or numb skin.
- Fatigue.
- Heart palpitations.
- Leg pain (when exercising or moving).
- Nausea or vomiting.
- Shortness of breath.
- Slurred speech or trouble communicating.
- Sores on feet.
- Swelling.
- Vision loss in one eye.
- Weakness on one side of body.

Sunburned Eyes

Often referred to as Snow Blindness. This is a painful, temporary loss of vision due to overexposure to the sun's UV rays. This causes sunburn to the eye – specifically the cornea. This occurs when sunlight reflects off snow, water, or white sand onto unprotected eyes. Sometimes it occurs from artificial sources of ultraviolet radiation, such as a welder's torch, sun lamps and tanning booths.

Prevention

- Wear sunglasses that block 100 percent of the sun's UV rays whenever outdoors during daylight.
- Ultraviolet radiation penetrates clouds. There is a risk of sunburned eyes even on cloudy or overcast days.
- Choose quality sunglasses that also have a wrap-style frame to protect your eyes from indirect as well as direct sunlight.
- For maximum protection choose sunglasses, snow goggles, or sports goggles with side shields or soft rubber that completely blocks sunlight from the front, side and below your eyes.

Signs & Symptoms

- Eye pain/burning eyes.
- Red and/or watery eyes.
- A gritty feeling or sensation in the eye.
- Sensitivity to light.
- Blurry vision.
- Swollen eyes and/or eyelids.
- Headaches.
- Glare and halos around lights.
- Temporary vision loss for approximately 24 to 48 hours.
- Vision can be significantly impaired, making it unsafe to drive.
- Color vision also may be affected temporarily.

Treatment

- Do not let the patient rub their eyes.
- Place a cool, dampened cloth over closed eyelids.
- See an eye doctor immediately to have severity of damage assessed and appropriate treatment prescribed.
- If symptoms persist longer than a day or two, or worsen after 24 hours, see an eye doctor immediately.

Traumatic Brain Injury (TBI)

TBI covers a wide range of injuries that occur when sudden trauma causes damage to the brain. This can happen when the head suddenly and violently hits an object, or an object pierces the skull and enters the brain. The severity of the injury can range from a mild concussion to long term complications, coma, or death. People most at risk are children (newborn to 4 years of age), young adults between 15 and 24 years of age, adult 60 years of age and older, and males of any age. TBI can result from falls or collisions with objects, penetrating wounds, severe blows to the head with shrapnel or debris, and following a blast. Falls, vehicle related collisions, violence (including shaken baby syndrome), sports injuries, and explosive blast are potential causes of traumatic brain injury.

Signs & Symptoms

TBI has a wide range of physical and psychological effects. Some signs and symptoms can appear immediately after the injury, while others may appear days or weeks later.

Mild traumatic brain injury

- Headache.
- Nausea or vomiting.
- Fatigue or drowsiness.
- Problems with speech.
- Dizziness or loss of balance.
- Blurred vision, ringing in the ears, a bad taste in the mouth, or changes in the ability to smell.
- Sensitivity to light or sound.
- Loss of consciousness for a few seconds to a few minutes.
- No loss of consciousness, but dazed, confused, or disoriented.
- Memory or concentration problems.
- Mood changes or mood swings.
- Feeling depressed or anxious.
- Difficulty sleeping.
- Sleeping more than usual.

Moderate to severe traumatic brain injuries

This range can include any of the signs and symptoms of mild injury, and any of the following symptoms may appear within the first hours to days after the head injury:

- Loss of consciousness from several minutes to hours.
- Persistent headache or headache that worsens.
- Repeated vomiting or nausea.
- Convulsions or seizures.
- Dilation of one or both pupils of the eyes.
- Clear fluids draining from the nose or ears.
- Inability to awaken from sleep.
- Weakness or numbness in fingers and toes.
- Loss of coordination.
- Profound confusion.
- Agitation, combativeness, or other unusual behavior.
- Slurred speech.
- Coma and other disorders of consciousness (prolonged altered level of consciousness).

Infant and young children's signs and symptoms

Infants and young children with brain injuries might not be able to tell you when they are experiencing headaches, sensory problems, confusion, etc. They may show the following signs or symptoms:

- Change in eating or nursing habits.
- Unusual or easy irritability.
- Persistent crying and inability to be consoled.
- Change in ability to pay attention.
- Change in sleep habits.
- Seizures.
- Sad or depressed mood.
- Drowsiness.
- Loss of interest in favorite toys or activities.

Non-Freezing Cold Injury

This is commonly called immersion foot syndrome or trench foot. The feet are most often involved, but the hands and other body parts can also be affected. Non-freezing cold injury can lead to damage to blood vessels, nerves, skin, and muscle. It is distinct from frostbite because the skin does not freeze.

Non-freezing cold injury happens when your feet or hands are exposed too long to a cold, wet setting. If your feet or hands are already wet, it can occur even if the temps get up to 15.6°C (60°F.) Wet feet lose heat 25 times quicker than dry feet.

Non-freezing cold injury is most commonly seen in builders, security guards, disaster aid workers, hikers, campers, extreme sports hobbyists, and outdoor music festival participants. People with poor diets and sleeping habits appear to be predisposed to developing non-freezing cold injuries.

Prevention

- Remember hydration, nutrition, shelter, and suitable protective clothing.
- When getting ready for outdoor activities:
    - wear boots that fit well.
    - wear thick, wool socks.
    - keep the body warm.
    - remove shoes and socks twice a day to dry and massage the feet.
    - never sleep in wet shoes or socks.
    - keep feet out of water or mud wherever possible.
    - respond to any tingling quickly.
    - remove wet shoes and socks, and air-dry feet.

Signs & Symptoms

- Blisters.
- Blotchy skin.
- Redness.
- Coldness.
- Heaviness.
- Numbness.
- Pain when exposed to heat.
- Persistent itching.
- Prickliness, or tingling.

Once the foot warms up it changes from white to red and becomes dry and painful. Blisters can form, causing skin and tissue to fall off the injured foot. If left untreated, can lead to gangrene or amputation.

Treatment

- Seek medical assistance as soon as possible to have the severity assessed.
- Thoroughly clean and dry your feet.
- Put on clean, dry socks daily.
- Apply warm packs or soak in warm water (102° to 110° F) for approximately 5 minutes.
- When sleeping or resting, do not wear socks.
- Check your feet at least once a day for infections or worsening symptoms.

Seek emergency care if feet turn dark blue, green, or black, or there is further swelling, severe pain then a loss of sensation, peeling away of skin, foul-smelling discharge, and disfigurement of toes. These are signs and symptoms of gangrene. If gangrene sets in, foot and lower leg amputation may be required.

Occupational Stress Injury and Self Care

When is workplace stress too much?

Not all stress is bad. A little stress can help you stay focused, energetic, and able to meet new challenges. When stress exceeds your ability to cope, it causes damage to your mind and body. When stress at work interferes with your work performance, health, or personal life you need to take steps to control it.

Stress warning signs

Signs and symptoms of excessive stress include:

- Feeling anxious, irritable, or depressed.
- Apathy, loss of interest in work.
- Problems sleeping.
- Fatigue.
- Trouble concentrating.
- Muscle tension or headaches.
- Stomach problems.
- Social withdrawal.
- Loss of sex drive.
- Using alcohol or drugs to cope.

Controlling Stress

- Reach out to trusted family, friends, coworkers.
    - The person doesn't have to provide solutions, they need to be a good listener.
    - Build new satisfying friendships.
- Exercise regularly.
- Maintain proper nutrition.
- Eat healthily.
    - Avoid alcohol or drugs.
- Get enough sleep.
    - Try to develop a sleep routine and aim for approximately 8 hours of sleep a night.
    - Working nights, early morning, or rotating shifts can impact your sleep quality.
- Prioritize and organize.
    - Create a balanced schedule.
    - Plan regular breaks.
    - Establish healthy boundaries.
    - Don't over-commit yourself.
    - Manage tasks to reduce workplace stress.
        - Prioritize tasks.
        - Break projects into small steps.
        - Delegate responsibility.
        - Be willing to compromise.
- Break habits that contribute to workplace stress.
    - Resist perfectionism.
    - Flip your negative thinking.
    - Don't try to control the uncontrollable.
    - Look for humor in the situation.

- Be proactive about your job and your workplace duties.
    - Talk to your employer about workplace stressors.
    - Clarify your job description.
    - Request a transfer.
    - Ask for new duties.
    - Take time off.
    - Look for satisfaction and meaning in your work.

How managers or employers can reduce stress at work

- Consult your employees.
- Communicate with your employees one-on-one.
- Deal with workplace conflicts in a positive way.
- Give workers opportunities to participate in decisions that affect their jobs.
- Avoid unrealistic deadlines.
- Clarify your expectations.
- Offer rewards and incentives.

Mental Health Emergencies

What is a Mental Health Emergency?

A mental health emergency can be life threatening. Any situation where a person's actions, feelings, and behaviors may lead to them hurting themselves or others is a mental health emergency. Most often mental health emergencies involve the threat of suicide or a suicide attempt. Other types of mental health emergency may involve the threat of harm to another person. In situations where a person is becoming psychotic (and may be guided by audio/visual hallucinations) it is possible that there is a threat to other people. While this is rare, it can happen if someone is extremely agitated, taking hallucinatory drugs, or is in the grip of an extremely psychotic episode with paranoid thoughts. Individuals with diagnosed mental illness are at greater risk of experiencing a mental health emergency. Too often an emergency occurs before mental illness has been diagnosed. Mental illness is a physical condition.

Being prepared for a Mental Health Emergency

When you suspect a mental health crisis/emergency, you need to decide who call to help. If the person is an immediate danger to themselves or someone else, call 911 and let them know you are with someone experiencing a mental health emergency. When someone is in the middle of a severe mental health emergency with suicidal or homicidal thoughts, they will probably not go to the emergency room even with a friend or family member. You must call 911 to get appropriate help.

Mental Help Lines – New Brunswick:

- 24/7 New Brunswick Addiction and Mental Health Helpline: 1-866-355-5550
- Kids Help Phone: 1-800-668-6868 or text TALK to 686868
- Suicide Crisis Helpline: Call 988