WorkSafeBC

Intermediate First Aid

Participant Guide

Intermediate participant guide

Intermediate first aid is a 14-hour program (excluding breaks) designed to provide lifesaving first aid skills to workers in industry.

Prerequisites

Candidates must be able to understand and perform the first aid skills required to complete the learning tasks. No previous first aid training is required.

Certification

To qualify for intermediate certification the candidate must participate in a minimum of 14 hours of training and successfully complete the course objectives as taught and evaluated by a person authorized by the Workers' Compensation Board (WorkSafeBC). Certification is valid for three years from the date of completion of the intermediate training course.

To renew a basic or intermediate certificate, a candidate must successfully retake the first aid course.

Intention

Instructors and course participants are encouraged to assist in improving pre-hospital care of injured workers by promoting:

Workplace compliance with the first aid regulation

Effective interaction between employers, supervisors, workers, and attendants

Efficient co-operation with higher levels of medical care, such as the advanced first aid attendant, BC Ambulance Service, and hospital emergency personnel

Certification of first aid attendants

Training and examination

To qualify for a basic first aid certificate or a certificate endorsement a candidate must successfully complete the training course as taught and evaluated by a person authorized by WorkSafeBC. The basic first aid and transportation endorsement courses are each seven hours in length, excluding breaks.

To qualify for an initial intermediate first aid certificate, a candidate must successfully complete an intermediate training course conducted by a person authorized by WorkSafeBC. The intermediate first aid course is 14 hours in length, excluding breaks.

To qualify for an initial advanced first aid certificate, a candidate must successfully complete an advanced training course and achieve a grade of at least 70% on each of the written, oral, and practical portions of the examination conducted by a person authorized by WorkSafeBC. The length of the advanced course first aid is 70 hours, excluding breaks.

Candidates who fail to complete a full course of instruction when required to must, without undue delay and at the discretion of the training agency, complete all missed components of the course prior to being eligible for an examination. Eligible candidates who fail any part of the written, oral, or practical examination must redo the failed portion of the examination again in its entirety (written, oral, and/or practical).

Failure of the written, oral, or practical examination may be remediated at the discretion of an approved training agency. Candidates will be required to repeat the failed segment of the examination in its entirety (written, oral, and/or practical). Passing grades obtained in various segments of the first examination may be carried forward to the second examination.

Practical skills

Failure of successfully demonstrate a practical skill for the intermediate first aid course may be remediated at the discretion of an approved training agency. The practical skill remediation, if offered, must be completed after the written examination on the day of the course.

Written

Candidates may attempt a second examination no sooner than 24 hours after the first failed examination. Candidates who choose not to attempt a second examination within 60 days of the first examination will be required to repeat the entire course of instruction prior to being eligible for another examination. Should the second examination also result in failure, the candidate must undergo a full course of instruction to be eligible for another examination.

Duration of certificates

First aid certificates and certificate endorsements are valid for three years from the date of completion of a training course and/or examination. Extensions of the duration of certificates are not permitted.

Renewal of certificates

To renew a basic first aid certificate or certificate endorsement, a candidate must meet the same training and examination requirements as for initial certificates through the completion of a full basic first aid course.

To renew an intermediate first aid certificate, a candidate must meet the same training and examination requirements as for initial certificates through the completion of a full WorkSafeBC intermediate first aid course.

A candidate for renewal of an advanced first aid certificate may challenge the examination without retaking the initial certification course provided the candidate possesses a valid (unexpired) advanced first aid certificate and a CPR/AED certificate that was issued not more than six months prior to the examination date. An advanced first aid examination leading to a certification decision consists of the final 14 hours of the advanced first aid course. Another option for advanced first aid attendants is to take a 35-hour refresher course.

Terms and conditions of certification

The attendant must

follow the principles of first aid treatment as outlined in WorkSafeBC's first aid training programs that are provided to the attendant when they participate in the training program,

a. comply with the OHS Regulation, and the other responsibilities of attendants in this training program, and
b. comply with any other terms and conditions provided to the attendant by the training agency when granted certification, or provided to the attendant by WorkSafeBC at any other time.

Inappropriate conduct

A first aid certificate issued to a first aid attendant may be suspended, cancelled, or have conditions placed upon its use where the first aid attendant engages in inappropriate conduct, including:

Smoking while assessing or treating an injured or ill worker or while handling oxygen therapy equipment, or permitting others to do so

Failing to use the assessment and injury treatment techniques outlined in first aid training courses unless conditions precluded them

Engaging in conduct that poses an unreasonable threat to the safety and well- being of other workers or the public

Removing themselves from being able to see or hear any summons for first aid at a workplace

Abandoning an injured worker after beginning assessment or treatment

Refusing to treat an injured worker when acting as the designated attendant

Treating or transporting an injured worker while impaired or under the influence of drugs or alcohol

Failure to comply with requirements

If WorkSafeBC has reasonable grounds for believing that a person who holds a first aid **certificate** has breached a term or condition of the certificate or has otherwise contravened a provision of the *Workers Compensation Act* or the OHS Regulation, WorkSafeBC may, under section 195 of the Act,

a. cancel or suspend the certificate, or
b. place a condition on the use of that certificate that WorkSafeBC considers is necessary in the circumstances.

WorkSafeBC will consider the nature of the violation, the circumstances surrounding the incident, and the past history of the attendant in determining the action to be taken. In order of severity, the possible actions that may be taken are:

a. a warning is issued,
b. a condition is placed on the use of the certificate,
c. the certificate is suspended for a period that ends before the normal expiry of the certificate, or
d. the certificate is cancelled.

In addition to or instead of these actions, WorkSafeBC may direct that applications of the attendant to renew the existing certificate or obtain a different certificate be subject to a condition or be denied for a period of time.

Reviews and appeals

An order to cancel or suspend a certificate may be appealed. Section 268(1)(a) of the *Workers Compensation Act* provides that a person may request a review officer to review "a Board order respecting an occupational health or safety matter under the OHS provisions, a refusal to make such an order or a variation or cancellation of such an order."

An attendant may, within 90 calendar days of the order issue date, in writing, request the Review Division of the Workers' Compensation Board to conduct a review of the order.

A final decision made by a review officer in a review under section 268(1)(a), pertaining to an order made under section 96 to cancel or suspend a certificate, may be appealed to the Workers' Compensation Appeal Tribunal.

An attendant may, within 30 calendar days of the final decision of the Review Division, in writing, request the Workers' Compensation Appeal Tribunal to conduct a review.

Identification

Candidates for WorkSafeBC intermediate certification will be required to produce one piece of acceptable, valid, photographic identification to the instructor at the time of the course.

Acceptable valid photographic identification:

Valid Canadian or U.S. driver's licence

Valid passport

Valid B.C. student identification card issued for the current school year

Employee picture identification card

Native status picture identification card

B.C. photo identification (digital) issued November 1996 or after

Canadian government–issued photo identification

If a candidate does not possess valid photographic identification as listed, they must present one primary and two secondary pieces of identification.

The following will be considered acceptable:

Primary identification	Secondary identification
Birth certificate Canadian citizenship I.D. Canadian record of landing Canadian student visa Canadian work visa Returning resident permit Canadian Armed forces I.D. (no photo) - with a photo it is a Canadian government I.D. Nexus	Naturalization certificate Marriage certificate Change of name certificate Parole certificate Correctional service conditional release card Valid credit card (if name is on card) Bank card (if name is on card) Vehicle registration Firearms possession and acquisition certificate Social insurance card (if offered by the candidate) B.C. Services Card (if offered by the candidate) Basic, intermediate, or advanced first aid certificate or transportation endorsement

If a candidate cannot produce appropriate identification, compliance may be achieved if they produce one of the following:

A letter from the candidate's employer typed on the firm's letterhead and signed by an official of the company. This letter must state that the employee is who they claim to be.

If the candidate is not employed and is being sponsored by a government or other agency the same would apply, only the letter must be from the sponsoring agency.

Candidates have the right to refuse to disclose any identification information. However, candidates refusing or failing to provide appropriate identification will not be issued certification.

Safety

Agencies are required to maintain a safe work environment. Instructors are responsible for safety in the classroom. All instructors are required to perform a simple risk assessment of the classroom.

Risk assessment — some obvious risks

- Patient movement (lifting, rolling, etc.) — this will include asking students about any pre-existing conditions of students that could be impacted by activities in class (in advanced first aid and transportation endorsement this means medicals prior to starting class)
- Tripping hazards (i.e., equipment, students)
- Training facility housekeeping and emergency procedures

Communicable disease plan or processes (COVID-19, etc.)

Safety alerts are included in the introduction to all first aid courses with further reminders where required by lesson in both instructor guides and participant guides.

Accommodation

If a student requires accommodation, it is important to document:

Why the student requires accommodation

What the accommodation consists of

How long accommodation is necessary

Accommodation for all students and conditions is not always possible in first aid classes. These courses are physically demanding and will require prolonged kneeling, working in stooped positions, and rolling patients. Each class participant is required to function as attendant, helper, and patient. Depending on the level and length of the course these physical demands can become rigourous.

Accommodation may be made for participants who indicate a problem with some of the aforementioned activities. Excusing a participant from being a patient in some practice sessions may be possible. Participants may also be permitted to adopt "comfort" positions on the floor to avoid kneeling or stooping for prolonged periods, even though the positions may not facilitate optimum patient care.

Regardless of accommodations made during the class, participants will be required to demonstrate specific skills according to an accepted standard before certification is issued. It is essential for the instructor to document any accommodation.

Intermediate course outline

Module 1

A competent intermediate first aid attendant will be able to:

Apply the priority action approach

Reposition an injured worker

Describe the roles and responsibilities of a designated first aid attendant

Conduct a modified primary survey

Assess soft tissue injuries

Make appropriate medical referral decisions

Explain the WorkSafeBC regulatory requirement for first aid record keeping

Learning tasks:

Priority action approach

Roles and responsibilities of the first aid attendant scene assessment

Scene assessment

Hazard considerations

Mechanism of injury (what happened)

Number of injured workers

Primary survey

Purpose of the primary survey

Components of the primary survey

Critical interventions

Transport decision

Medical aid or return to work

BCEHS (ambulance)

Emergency transport vehicle (ETV), taxi, company vehicle (if equipped)

Information for ETV (Remote workplaces)

Airway, breathing, circulation (ABCs)

Secondary survey

Vital signs

Medical history

Head-to-toe assessment

Conduct a priority action approach

A responsive worker

An unresponsive worker

Repositioning a worker

Face down (prone) to face up (supine) roll

Face up (supine) to recovery (¾-prone) position

Priority action approach for the walk-in worker

Modified primary survey

Wound assessment and treatment

Examining wounds

Cleansing wounds

Dressing and bandaging

Providing worker handout sheets

Discussing the first aid record

Decisions on referral to medical aid

Wounds that must be referred to medical aid

Workers who must be transported by ambulance

Module 2

A competent intermediate first aid attendant will be able to:

Identify breathing emergencies

Identify a mild (partial) obstructed airway

Identify a severe (complete) obstructed airway

Clear of an obstructed airway

Use a pocket mask

Perform CPR and use an AED

The procedures will follow the guidelines described in the intermediate first aid participant guide.

Learning tasks:

The respiratory and circulatory system

Airway obstruction management

A responsive worker with a mild (partial) airway obstruction

A responsive worker with a severe (complete) airway obstruction

CPR and AEDs

Chest pain

An unresponsive worker in cardiac arrest

Respiratory and/or cardiac arrest management

Module 3

A competent intermediate first aid attendant will be able to:

Manage bleeding

Identify the signs of anaphylaxis

Reposition an injured worker

Identify common medical emergencies

Manage common medical emergencies

Learning tasks:

Shock

Identification

Management

Position a worker from sitting to lying (supine) position

Severe bleeding management

Identification and management of medical conditions

Stroke

Diabetes

Seizures

Fainting

Burns

Degrees of burns

Thermal burn management

Module 4

Identification of the rapid transport category

Module 5

Review primary survey

Responsive

Unresponsive

Secondary survey

Responsive

Unresponsive

Ongoing assessments

Learning tasks:

Priority action approach

Primary survey

Secondary survey

Ongoing assessments

Module 6

Partial airway obstruction — fluid

Identification and management of chest injuries

Flail

Penetrating chest injury

Open pneumothorax (sucking chest)

Closed pneumothorax

Chronic obstructive pulmonary disease (COPD)

Management of breathing distress

Learning tasks:

Manage airway emergencies due to fluids

Identify and manage chest injuries

Manage breathing distress

Module 7

External and internal bleeding

Internal bleeding or hypovolemic shock — responsive

External bleeding requiring tourniquet — responsive

Amputation and amputated part management

Two-person CPR with AED

Module 8

Environmental injuries

Cold-related injuries

Heat-related injuries

Module 9

Minor ear injuries

Minor nose injuries

Major eye injury

Treatment of ear, nose, and eye injuries

Module 10

Burns

Types

Rule of nines

Mechanism of injury

Rapid transport

Minor burn treatment

Manage major burn

Module 11

The musculoskeletal system

Ankle sprain — spica wrap

Minor fractures, dislocations, immobilization

Manage a minor fracture or dislocation

Manage a major fracture or dislocation

Ongoing management

Poison

Module 12

Manage a diabetic emergency

Manage a seizure

Manage a stroke

Critical incident stress

Course schedule and timing

Activity	Topic	Minutes
Course registration	Not included in class time	0
Module 1		
Discussion	Classroom introduction and management	5
Discussion	Roles and responsibilities	10
Discussion	Barriers to communication	2
Intro, video	How the body works	2
Discussion, video	Priority action approach	5
Video, demo 1-01	Primary survey responsive worker	10
Practice 1-01	Primary survey responsive worker	20
Video, demo 1-02	Reposition an injured worker	2
Practice 1-02	Reposition an injured worker	7
Demo 1-03	Primary survey unresponsive worker	10
Practice 1-03	Primary survey unresponsive worker	20
Video, demo 1-04	Reposition an injured worker	2
Practice 1-04	Reposition an injured worker	8
Discussion	Priority action approach walk-in worker	10
Video, demo 1-05	Priority action approach to the walk-in worker	2

Activity	Topic	Minutes
Practice 1-05	Priority action approach to the walk-in worker	15
Demo 1-06	Priority action approach walk-in worker laceration	10
Practice 1-06	Priority action approach walk-in worker laceration	20
Discussion	Wounds referred to medical aid	4
Video	Shoulder strain	3
Video	Back Strain	3
		160
Module 2		
Discussion	Airway and breathing emergencies	5
Instructor demo 2-01	Partial airway obstruction — responsive worker	5
Practice 2-01	Partial airway obstruction — responsive worker	5
Instructor demo 2-02	Complete airway obstruction — responsive worker	5
Practice 2-02	Complete airway obstruction — responsive worker	10
Discussion	Circulation system	2
Video	Chest pain	2
Discussion	Unresponsive worker	8
Skill-only practice 2-03	Ventilating a mannequin with a pocket mask	10
Instructor demo 2-04	CPR respiratory and/or cardiac arrest	5

Activity	Topic	Minutes
Practice 2-04	CPR respiratory and/or cardiac arrest	20
Instructor demo 2-05	CPR respiratory and/or cardiac arrest with AED	10
Practice 2-05	CPR respiratory and/or cardiac arrest with AED	20
Discussion	Medical conditions	2
Video	Asthma	2
Video	Anaphylaxis	2
Video	Epinephrine	2
		115
Module 3		
Lecture, discussion	Shock and bleeding	10
Instructor demo 3-01	Internal bleeding — unresponsive lying face up	5
Practice 3-01	Internal bleeding — unresponsive lying face up	15
Guided practice 3-02	Loop tie, pressure bandage, elastic Velcro strap	20
Instructor demo 3-03	External bleeding — responsive sitting	5
Practice 3-03	External bleeding — responsive sitting	20
Guided practice 3-04	Tourniquet	15
Lecture, discussion	Medical conditions	10
		100

Activity	Topic	Minutes
Module 4		
Review	Rapid transport category	**10**
Module 5		
Lecture, discussion	Secondary survey	7
Instructor demo 5-01	Secondary survey — responsive	10
Guided practice 5-01	Secondary survey — responsive	20
Lecture, discussion	Ongoing assessments	2
		39
Module 6		
Lecture, discussion	Airway and breathing management urgency	2
Instructor demo 6-01	Partial airway obstruction due to fluid	5
Practice 6-01	Partial airway obstruction due to fluid	10
Lecture, discussion	Chest injuries	10
Instructor demo 6-02	Respiratory distress — responsive	5
Guided practice 6-02	Respiratory distress — responsive	10
		42
Module 7		
Lecture, discussion	External and internal bleeding	3

Activity	Topic	Minutes
Skill practice 7-01	Internal bleeding, hypovolemic shock — responsive	9
Instructor demo 7-02	External bleeding requiring tourniquet — responsive	10
Guided practice 7-02	External bleeding requiring tourniquet — responsive	20
Lecture, discussion	Manage an amputation and amputated part	2
Instructor demo 7-03	Amputation — responsive	7
Guided practice 7-03	Amputation — responsive	14
Instructor demo 7-04	Two-person CPR with AED	5
Guided practice 7-04	Two-person CPR with AED	10
		80
Module 8		
Lecture, discussion	Environmental injuries	3
Lecture, discussion	Cold-related injuries	10
Lecture, discussion	Heat-related injuries	7
		20
Module 9		
Discussion	Minor ear injuries	2
Discussion	Nose injuries	2
Discussion	Minor nose injuries	2

Activity	Topic	Minutes
Discussion	Minor eye injuries, types of eye injuries, treatment	2
Instructor demo 9-01	Major eye injuries	8
Guided practice 9-01	Major eye injury	18
		34
Module 10		
Lecture, discussion	Burns (types, rule of nines, mechanism of injury, rapid transport)	10
Lecture, discussion	Minor burn treatment	5
Instructor demo 10-01	Manage major burn	5
Practice 10-01	Manage major burn	15
		35
Module 11		
Lecture, discussion	The musculoskeletal system	10
Instructor demo 11-01	Ankle sprain — spica wrap	5
Guided practice 11-01	Ankle spica	10
Lecture, discussion	Minor fractures, dislocations, immobilization	5
Instructor demo 11-02	Manage a minor fracture or dislocation	10
Guided practice 11-02	Manage a minor fracture or dislocation	20
Instructor demo 11-03	Manage a major fracture or dislocation	10

Activity	Topic	Minutes
Guided practice 11-03	Manage a major fracture or dislocation	20
Lecture, discussion	Ongoing management	2
Lecture, discussion	Poison	3
		95
Module 12		
Lecture, discussion	Manage a diabetic emergency	2
Guided practice 12-01	Manage a diabetic emergency	13
Lecture, discussion	Manage a seizure	2
Guided practice 12-02	Manage a seizure	13
Lecture, discussion	Manage a stroke	2
Guided practice 12-03	Manage a stroke	8
Lecture, discussion	Critical incident stress	10
		50

Module 1

Module 1

Objective

A competent first aid attendant will be able to:

Apply the priority action approach

Reposition an injured worker

Describe the roles and responsibilities of a designated first aid attendant

Conduct a modified primary survey

Assess soft tissue injuries

Make appropriate medical referral decisions

Explain the WorkSafeBC regulatory requirement for first aid record keeping

Module outline

Assess	Activity	Minutes
Discussion	Classroom introduction and management	5
Discussion	Roles and responsibilities	10
Discussion	Barriers to communication	2
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Discussion	Wounds referred to medical aid	4
Video	Shoulder strain	3
Video	Back strain	3
Mod 1 total		**160**

Module 1

Introduction — lecture, discussion

We will discuss some of the physical aspects of the course, what is expected of you and how the day will unfold.

Slide 1

Instructor and participant introductions:

Participant name tags

The course format:

Seven hours class time

Demonstrations with class practical sessions

The Intermediate Participant Guide is:

- Referred to throughout the class
- A reference guide to review during the three years of certification

Classroom management:

Break schedule (coffee, lunch)

Parking, washrooms, exits, etc.

Expectations — participant and instructor:

Full participation in all practical sessions

During practical sessions the instructor will be asking questions. It's best if you do not call out any answers, as the instructor will call on people for the answer, which helps the instructor keep track of how you are doing.

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The first time we practise new skill, it is very important every step is practised correctly. To help with this the instructor will be asking everyone to stop and freeze during the first practice. Please wait and do not get ahead of the class while the instructor checks to see if everyone is correct.

Participants must show competency in the practical exercises for each objective that involves a "lifesaving" skill in order to be certified.

For the closed-book written exam, you will need to achieve at least 70% to pass.

Upon successful completion, a certificate is issued that is valid for three years.

Evaluation (practical and written assessment):

Agency evaluations to be completed.

Safety alert

This course is physically demanding. It will require prolonged kneeling, working in stooped positions, and repositioning other participants. Each participant is required to function as attendant, co-worker, and injured worker.

Accommodation may be made for participants who indicate a problem with some of these activities. Participants may be permitted to adopt "comfort" positions on the floor to avoid kneeling or stooping for prolonged periods, even though the positions may not facilitate optimum care. However, regardless of accommodation made during class, participants will be required to demonstrate specific skills according to an accepted standard before certification is issued.

Medical exam gloves are used during all practice sessions. Participants need to be aware of possible allergic reactions to latex gloves and powder used in some brands.

Personal protective equipment (PPE): kneepads are recommended.

Slide 2

Someone has just been seriously injured at your workplace and is lying on the ground not moving with blood on their face.

What do you do? Call an ambulance?

This course will teach you what to do during those crucial first minutes before the ambulance arrives.

Slide 3

In Module 1 we will cover:

Roles and responsibilities

- Your responsibilities to the worker and employer

Priority action approach to an incident or injury, which includes:

- Scene assessment
- Primary survey of the injured worker
- Critical interventions and transport decisions
- Secondary survey

Role and responsibilities — lecture, discussion

First aid is a vital part of the workplace on any jobsite.

The following is an excerpt from the OHS Regulation:

3.21 First aid attendant responsibilities

1. The first aid attendant must:
    a. promptly provide injured workers with a level of first aid within the scope of the first aid attendant's training and this Part,
    b. objectively record observed or reported signs and symptoms of injuries and exposures to contaminants covered by this Regulation, and
    c. refer for medical treatment workers with injuries considered by the first aid attendant as being serious or beyond the scope of the attendant's training.
2. A first aid attendant must be physically and mentally capable of safely and effectively performing the required duties, and the Board may at any time require the first aid attendant to provide a medical certificate.
3. The first aid attendant is responsible, and has full authority, for all the provision of first aid to an injured worker until responsibility for treatment is accepted
    a. at a place of medical treatment,
    b. by ambulance personnel, or
    c. by a person with higher or equivalent first aid certification.
4. The first aid attendant does not have authority to overrule a worker's decision to seek medical treatment or the worker's choice of medical treatment.

[Amended by B.C. Reg. 132/2023, effective November 1, 2024.]

There may be serious consequences if an attendant abandons an injured worker or is guilty of gross negligence towards an injured worker.

Knowing the role and responsibility as a first aid attendant will help to make decisions to do the job effectively.

When you assume the role of a first aid attendant you take on many responsibilities.

Slide 4

The attendant role starts well before an incident or injury even happens. It is the attendant's responsibility to be familiar with all aspects of the workplace including:

Specific location names (including jargon) for all areas of the worksite

Location of first aid room, rescue vehicles, and first aid equipment

Entry and exit to and from all areas of the worksite

Provision for emergency procedures under the listed regulation numbers

Determining the approximate number of workers usually expected to be in each general area of the worksite

Identifying supervisors in each area (how each can be reached)

Method of summoning first aid attendant

Location and method of summoning other first aid personnel

Location and method of summoning workers with specialized training (welders, heavy equipment operators, millwrights, company fire crew, etc.) The attendant must know where to access information on specific hazards.

Slide 5

The employer must keep, and conspicuously post, up-to-date written procedures for providing first aid at the worksite including:

The equipment, supplies, facilities, first aid attendants, and services available

The location of first aid

How to call for first aid

How the first aid attendant is to respond to a call for first aid

The authority of the first aid attendant over the treatment of injured workers and the responsibility of the employer to report certain injuries to WorkSafeBC

Who is to call for transportation for the injured worker, and the method of transportation and communication

Pre-arranged routes in and out of the workplace and to medical treatment

Use of an AED (if available) and other specialized equipment

More information and samples of the written procedures for providing first aid can be found on worksafebc.com.

A list of emergency numbers must be maintained for use in an emergency.

The attendant should confirm that the employer has provided all minimum first aid supplies and services as required by the OHS Regulation.

Slide 6

First aid kits

First aid kit items must be kept clean and dry and must be ready to take to the scene of an incident. A weatherproof container is recommended for all items except the blankets. Blankets should be readily available to the first aid attendant.

The first aid attendant should check the first aid equipment and supplies at the start of every shift. For full list of all kits, see worksafebc.com.

The first aid attendant should check the first aid equipment and supplies at the start of every shift.

The first aid attendant should check the first aid record for workers requiring follow-up care for previous injuries:

- Who is available to use as helpers in case of an injury?
- Are SDSs and PPE available?
- Who is in charge of ordering supplies?

Slide 7

A first aid attendant:

Must ensure their certification remains valid — know the expiry date (valid for three years)

Must be physically and mentally capable of safely and effectively performing the required duties, and WorkSafeBC may at any time require the attendant to provide a medical certificate

Is responsible, and has full authority, for all first aid treatment of an injured worker until the worker returns to work or responsibility for treatment is accepted by:

- A place of medical treatment
- An ambulance service acceptable to WorkSafeBC
- A person with higher or equivalent first aid certification accepts responsibility

Slide 8

Does not have authority to over-rule a worker’s decision to seek medical treatment or the worker’s choice of medical treatment

Must act professionally; treat all workers respectfully and expediently

Must maintain a pleasant personality and remain calm under pressure, which can lessen the anxiety of the injured worker and co-workers, as they:

- Take charge of the scene and injured worker
- Direct co-workers to assist when required

Must maintain confidentiality of things that a worker may convey, whether it be a medical condition, or something else relating to the injury

Can recommend to the supervisor that there may be alternative duties that the worker could do; the supervisor needs to know the limitations that the injured worker can work under without aggravating the injury

Must ensure all first aid equipment is clean and well organized

Should review the reference manual to keep current in the first aid procedures

Barriers to effective communication — discussion

Slide 9

Effective communication is critical during an incident. Here are some barriers to effective communication.

Barriers

Language
There may be language barriers to work around during an incident. If there is difficulty communicating with a worker or the bystanders, find someone who can communicate with the worker or bystanders; this may help work through the barriers.

Not listening
You must show enthusiasm when communicating with others. Pay attention to what the individual is saying.

Poor performance of equipment
There may be technical problems with the equipment (radios, pagers) on a worksite. Check your equipment at the start of each shift to ensure the equipment is working properly.

Noise
There may be no way of stopping noise during an incident. Get close and listen, pay attention to body language, gestures, and facial expressions.

Misinterpretation
There may be confusion if the information is misinterpreted. Repeat or paraphrase the individual's response to confirm understanding.

Lack of clarity
Confusion can be created by the words you have chosen, the tone of your voice or your body language. Keep it simple. "Say what you mean. Mean what you say."

Jumping to conclusions
People often hear what they expect to hear rather than what is actually said and jump to incorrect conclusions.

The first aid attendant also needs to know the basic actions to keep the injured worker alive until help arrives.

To understand the effects of first aid, a basic knowledge of how the body works is essential.

Video

Slide 10

How the body works

Slide 11

The cells of the body require a constant supply of oxygen, especially the vital organs such as the brain, heart, lungs, kidneys, and liver.

The respiratory control centre, located in the brain, causes the chest to rise and fall causing the lungs to expand and contract.

This draws air in through the nose and mouth to the lungs via the airway. In the lungs oxygen enters the bloodstream and is pumped to every part of the body by the heart.

Oxygen is used by the body cells leaving carbon dioxide waste that is circulated back to the lungs and expelled when we breathe out.

Cells in our vital organs start dying in as little as four minutes if the supply of oxygen is stopped.

First aid is about maintaining the supply of life-sustaining oxygen until the worker is in more qualified hands.

Video — priority action approach

Slide 12

Priority action approach

The video will show a scene where a worker has fallen off a 2 m ladder.

Scene survey

Assessing responsiveness

Primary survey

- Airway assessment
- Breathing check

- Circulation assessment

Critical interventions transport decision

Secondary survey

Priority action approach — discussion

During the critical period after an injury, we follow the sequence of steps of the priority action approach to ensure nothing is missed.

Slide 13

Priority action approach is first things first.

Scene assessment

- No further danger to yourself or workers
- What happened?
- How many people were hurt?

Assess responsiveness using AVPU (alert, verbal, pain, unresponsive)

- A — Is the worker alert?
- V — Does the worker respond to voice?
- P — Does the worker respond to pain?
- U — Is the worker unresponsive?

Primary survey

- Ensure ABCs
- Stabilize the head and neck if the worker is responsive and the history indicates trauma
- Consider the possibility of a head, neck, and back injury based on the type of force applied to the body:
    - Numbness and tingling?
    - Loss of feeling in an extremity?
    - Pain on the spinal column?
    - Significant head injury?
    - Loss of motor function?

Slide 14

A (Airway)

- Must be open and clear

B (Breathing)

- Lungs must be working

C (Circulation)

- Must be an adequate blood supply
- Heart must be beating
- No bleeding — checked by doing a rapid body survey

Slide 15

Critical interventions

- May require an intervention such as providing CPR, clearing an airway, or stopping bleeding

Transport decision

- Does the worker require an ambulance?
- Can a company vehicle or taxi be used?
- Can the worker return to work?

Secondary survey

The secondary survey is similar to the primary survey, except it's more detailed and takes longer.

The secondary survey consists of:

- Vital signs
- History
- Head to toe

Reassess the ABCs every five minutes while waiting for the ambulance. If the worker's condition changes, those changes must be updated to the ambulance dispatch.

The secondary survey will be covered in depth in Module 5. You can also read more about how to conduct the secondary survey in Appendix F.

Ambulance arrival — discussion

In an urban or remote workplace, the emergency response procedures may involve arranging transportation by ambulance either from the workplace, from a meeting point with an emergency transport vehicle (ETV), or a meeting point with a helicopter.

When the ambulance arrives, provide a verbal report, to include:

Worker's name and age

Vital signs — level of consciousness (AVPU), breathing, skin

History — mechanism of injury (what happened), worker's chief complaint(s), medications, allergies, any pertinent medical history

Head to toe — injuries found, treatment rendered

Discussion — transmission of infection and personal protective equipment

Workplace hazards and risk

The designated first aid attendant may face hazards and be at risk when providing care to an injured worker. The hazards and risks may be:

Environmental

Psychological

Physical

Common routes for transmission of disease and infection

Direct transmission:

Direct contact (touch)

Direct projection (directly coughing or sneezing on someone)

Transplacental (from mother to fetus)

Indirect transmission:

Airborne (infectious droplets in the air)

Vehicle borne (carried by food, water, or objects)

Vector borne (carried by insects)

Personal protective equipment (PPE)

Infection and disease are a risk and hazard for the first aid attendant. Transmission of disease and infection may be prevented by always using PPE when interacting with an injured worker.

If there is any risk of exposure to blood or body fluids, you must wear PPE such as rubber gloves. Remember to change your gloves between patients to avoid cross contamination.

If there is a potential for spraying body fluids, you must wear eye protection or face shields. Arterial bleeding, childbirth, and vomiting are examples.

If there is a potential for splatter from blood or body fluids, or there is a suspected respiratory infection, you must wear PPE. If wearing a respirator is required as part of your PPE, you will need to be fit tested before you start your duties and once a year after that.

You may also be required to wear other personal protective equipment, depending on the circumstances, such as high-visibility vests, medical masks for communicable diseases., and respirators for silica dust.

Some of the equipment used in first aid is also PPE, such as the pocket mask with a one-way

valve, and gloves.

Safety alert
Medical examination gloves are used during all practice sessions. Students need to be aware of possible allergic reactions to latex gloves and powder used in some brands.

Participant practice 1-01

Materials required

Face shield or pocket mask

Medical masks

Eye Protection

Gloves

First aid kit

Blankets

Sandbags (for leg support)

Conduct the primary survey

Face up (supine), responsive worker

Assess		Response
	Scene assessment (gloves on) Ensure no danger. What happened? How many injured?	No danger The worker fell off a 2 m stepladder. One worker
2.	Approach the worker from the line of sight, with a first aid kit and blanket, identify yourself and attempt to talk to the worker.	The worker says they fell off a ladder; worker has a clear airway and is breathing normally.

Assess		Response
3.	Activate the worksite emergency response procedures: Instruct the co-worker calling the ambulance to say, "There is a responsive adult who has fallen two meters off a ladder" and to report back	The worker is in great pain and is unable to get up. In rural worksites this may be a company ETV.
4.	Assess responsiveness — AVPU	The worker's eyes are open and they are aware of you as you approach; worker is alert.
5.	Tell the worker not to move and with your elbows on the ground, stabilize their head and neck by placing your hands on either side of the head, and hold the head still in the position found.	Worker allows the attendant to support their head.
6.	Hand off the support of the head to a co-worker by giving clear directions: The co-worker's elbows must be braced prior to placing hands on the head. Direct the co-worker to place one hand over yours, hold the head still while you slide your hand out and repeat with the other hand. Direct the co-worker not to move and to hold the head still in the position found.	

Assess		Response
7.	Primary survey Ensure the worker has a clear airway and is breathing by asking a question. Ask the worker where they are hurt. Assess circulation: • Look for obvious signs of shock by observing skin colour and feeling for temperature and condition. • Conduct a rapid body survey to check for massive external hemorrhage and obvious fractures.	The worker is speaking and the breathing is normal. The worker is complaining of pain in the right leg • Skin — normal colour, warm and dry • RBS — significant pain and obvious deformity in right knee
	Note: If wounds or bleeding are discovered on the chest area during the rapid body survey, the chest must be exposed, and any chest wounds must be covered with gauze if bleeding and stabilized if the history indicates trauma to the chest, or pain.	No chest injuries, bleeding on the chest or chest pain were discovered or reported during the rapid body survey.
8.	Direct a co-worker to support the leg to prevent movement, reassure, and keep the worker warm.	If there are no co-workers available, the use of any readily available material to prevent movement of the injured leg is appropriate. Remind the worker to remain calm and to try not to move.
9.	Reassess the ABCs every five minutes while waiting for the ambulance. If the worker's condition changes those changes must be update relayed to the ambulance dispatch.	

Assess		Response
10.	Complete the secondary survey Vital signs History Head to toe	Would be completed waiting for the ETV or ambulance to arrive.

Face down (prone) to face up (supine) 1-02 Participant practice

Materials required

Gloves

Blankets

Participant practice (skill only):

Face down (prone) to face up (supine) roll

Face down (prone) to face up (supine) roll		
Assess		**Response**
The primary survey is best conducted in the supine position. Supine is the best position to open the airway, assess level of responsiveness, airway, and breathing, as well as to perform most critical interventions.		
1.	Kneel beside and behind the worker.	
2.	Direct co-workers to support the legs and hips and help with the roll.	
3.	Cradle the injured worker's head and neck in the hand closest to the injured worker's head, and with the other hand grasp the clothing at the hip and pull the injured worker toward you and over into the face up (supine) position.	

Discussion — head and spinal injuries

When a worker has suffered a traumatic incident, the first aid attendant must have a high degree of suspicion for head, neck, and back injuries. An injured worker with head trauma may suffer a traumatic brain injury. Traumatic brain injuries can range from mild (concussion) to severe (unconscious). Any worker with suspected spinal injury or suspected traumatic brain injury requires urgent medical attention. Activate the workplace emergency response procedures immediately.

Participant practice 1-03

Materials required

Gloves

First aid kit

Blankets

Conduct the primary survey

Unresponsive worker face down

The site first aid attendant is called to an incident in a building under construction.

Assess		Response
1.	Scene assessment (gloves on) Ensure no danger. What happened? How many injured?	No danger The site supervisor explains the worker fell through the uncovered opening in the floor. One worker.
2.	Assess responsiveness — AVPU	The worker's eyes are closed and is unaware of you as you approach; worker does not respond.
3.	Approach the worker from the front with first aid kit and blanket; identify yourself and attempt to talk to the worker. Apply a pain stimulus to one of the workers fingers.	The worker does not respond to your voice or to pain. This worker requires urgent medical attention.

Assess		Response
4.	Activate the worksite emergency response procedures: Instruct the co-worker calling the ambulance to say there is an unresponsive adult with a head injury and to report back.	In rural worksites this may be a company ETV or helicopter.
5.	The worker cannot be assessed face down.	Reposition the worker face up.
6.	Primary survey From the side of the worker, open the airway using a head-tilt chin-lift, keeping the head in line with the body. Assess breathing for 5–10 seconds. Direct a co-worker to kneel on the opposite side of the worker and hold the head in the head-tilt chin-lift position. Assess circulation: • Look for obvious signs of shock by observing skin colour and feeling for temperature and condition. • Conduct a rapid body survey to check for massive external hemorrhage and obvious fractures.	Air is moving in and out quietly — airway is clear. • Skin is normal colour, warm and dry. • Rapid body survey — nothing obvious.
7.	Keep the worker warm.	Apply blanket.
8.	Reassess the ABCs every five minutes while waiting for the ambulance. if the worker's condition changes those changes must be update relayed to the ambulance dispatch.	

Assess		Response
9.	Complete the secondary survey Vital signs History Head to toe	Would be completed waiting for the ambulance to arrive or in the ETV en route to medical aid.

Video 1-04 — face up (supine) to recovery ((¾-prone) roll

Slide 18

Participant practice 1-04

Materials required

Gloves

Blankets

Participant practice (skill only):

Face up (supine) to recovery (¾-prone) roll

Face up (supine) to recovery position (¾-prone)		
Assess		**Response**
There are times when the first aid attendant must leave an unresponsive worker to get help. It is important not to leave an unresponsive worker lying on their back (supine). They must be put in the recovery position (¾-prone).		
1.	Kneel beside the worker; ensure the arm closest to you is extended out to the side.	
2.	Cradle the worker's head and neck in the hand closest to the worker's head, and with the other hand grasp the clothing at the hip and pull the worker up on their side (lateral) — resting against your body.	

Face up (supine) to recovery position (¾-prone)		
3.	Ensure the worker's head is resting on the upper arm, the upper leg is bent to prevent the worker from settling on the abdomen and the other arm is in a comfortable position in front of the worker.	
4.	A folded blanket may be placed under the worker's upper leg or upper shoulder to help maintain the position.	
5.	Ensure the worker's airway is open and the head is in a drainage position.	
6.	Move away from the worker and ensure the worker is still in good position.	The ABCs should be reassessed now the worker is in the recovery (¾-prone) position.

Priority action approach for the walk-in worker — discussion

Most injuries the first aid attendant will treat are the day-to-day minor wounds and cuts.

Slide 19

The attendant is responsible for:

Assessing these injuries

Treating the injury

Documentation (first aid record)

Referring workers to medical aid when the injury is beyond the scope of the first aid training

Priority action approach for a walk-in worker (minor injury):

Assessment and treatment of injuries:

- Examining wounds
- Cleansing, dressing, and bandaging wounds

Completion of the first aid record

Provision of follow-up care

Decisions for referral to medical aid

Back strains, eye injuries, and burns

Review of the SDS (Workplace Hazardous Materials Information System [WHMIS] 2015)

When the injured worker is walking and talking, the priority action approach can be modified depending on information gathered during the initial management.

During the scene assessment, information gathered will help the attendant make decisions.

Slide 20

Worker's initial appearance helps us decide if the worker can be treated sitting or must be lying down if any of the following are present:

- Airway distress
- Breathing distress
- Severe bleeding
- Pale skin colour
- Anxiety or dizziness
- Unusual posture and movement

Hazards

- Is it safe back at incident site?

Mechanism of injury

- What happened?
- Force involved and to what part of the body?
- Is head and neck support (C-spine control) required?
- Number of injured workers — is anyone else injured?

A primary survey involves assessing a worker's airway, breathing, and circulation. The ABC assessments were done thoroughly and carefully because those injured workers were not walking and/or talking. For the worker who walks in to see the first aid attendant, we can usually modify this survey.

Modified primary survey

Slide 21

Airway assessment

- Is the worker talking in a clear voice?

Breathing assessment

- Is the worker talking normally?

Circulatory assessment:

- Look to see if the skin colour is normal
- Rapid body survey — ask if the worker hurts anywhere else
- If everything looks normal, the worker may be positioned sitting, with support for the injured area.

Now the injured area must be fully assessed to decide on treatment and if referral to medical aid is required:

Slide 22

Expose the limb or injured area.

Look at the entire limb or area for wounds, discolouration, swelling, or deformities.

Feel the entire limb or area to determine extent of injury.

Check circulation and nerve function.

Tetanus injections should be administered within 36 hours of the injury even if the injury seems insignificant.

A tetanus booster shot should be recommended if the wound is very dirty at five years after the last injection and at 10 years if it is a clean wound.

Once a tetanus infection is established, there is about a 40% mortality rate even with appropriate therapy.

Decide if the worker can be treated and returned to work or must be referred to medical aid.

Treat the wound — cleanse, dress, and bandage.

If the worker is being treated and returned to work, a patient handout must be given out and discussed.

Patient handouts are included in Appendix C in this guide.

An ambulance will be required if the worker is not responsive or is unwilling or unable to get up.

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In addition, workers who display any of the following signs or symptoms must be transported to medical aid by ETV or ambulance.

Airway or breathing problems.

Abnormal skin colour.

Anxiety, light-headedness, confusion, or dizziness.

Worker cannot walk unassisted.

Worker is in great pain.

Injury has resulted in ongoing numbness or tingling in an extremity.

Weakness, numbness, or tingling in the extremities.

Sudden onset of severe pain in the spinal area.

If none of the above are present and the worker needs to be referred to medical aid, the worker may be transported in a company vehicle or taxi.

The worksite's emergency response procedures are activated as outlined section 3.17 of the OHS Regulation and its accompanying guideline.

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When a co-worker is designated to call for an ambulance, they must have information to be given to the ambulance dispatcher:

Number of injured workers

Precise location of the injured workers

Basic nature of the injuries

The co-worker must report back to the attendant to confirm an ambulance has been called.

The ABCs must be reassessed every five minutes:

A — Airway is still clear and open

B — The worker is still breathing

C — There are no signs of shock and any bleeding is still controlled

While a designated first aid attendant is considered to have authority to provide first aid in the workplace, all workers have the right not to be touched by anyone.

Slide 25

In order to help someone we must have their consent.

There are two types of consent — actual consent, and implied consent:

Actual consent refers to a worker making an informed decision and allowing you to help them.

Implied consent refers to a situation where a worker is unable to respond and the law assumes that, if able, the worker would give consent in an emergency situation.

Slide 26

Ankle sprain video 1-05

Participant practice 1-05

Materials required

Gloves

Cold pack

Blanket

Assess, treat a sprained ankle

(Ankle sprain)

Assess		Response
1.	Scene assessment — modified Assess initial appearance What happened? Did you fall or hit your head? Is it safe back at injury site? Was anyone else hurt?	The worker's appearance is normal. "While going down the stairs twisted my ankle." No trauma to head or neck. No hazards. No other workers hurt.
2.	Primary survey — modified Airway Breathing Circulation • Skin colour • Rapid body survey — ask the worker "Did you hurt yourself anywhere else?" Provide immediate care by elevating the injured leg.	The modified primary actually begins as the worker enters the first aid room and you question the worker. The worker is talking in a clear voice and the mechanism does not indicate major trauma. Breathing is adequate, as the worker is talking normally. You can see the skin colour is normal. "No, only my ankle hurts." The modified primary survey is complete. Based on information gathered, the worker can be treated sitting in the treatment chair.

Assess		Response
3.	Wash hands and put on gloves.	
4.	Secondary survey — examination and assessment (modified head to toe): Thoroughly examine the leg from the knee to the toes for other injuries. Examine around the injury site for damage to underlying structures. Feel the foot for warmth (circulation). Ask if the worker can feel touch on the toes and if the worker can move the toes. Assess range of motion.	Vital signs are not required because the worker is not likely going to medical aid. History — no allergies, medications, medical problems Chief complaint There is no redness. There is no swelling. Foot is warm to the touch. The worker can feel and move the injured limb. Worker can move their foot, but there is a slight increase in pain on movement.
5.	Decide or confirm the need to refer the worker to medical aid.	There is nothing to indicate this injury will require medical aid.
6.	If the foot has normal colour and is warm apply ice for 20 minutes on, and five off.	Foot is warm Normal colour
7.	Talk to supervisor if the worker cannot return to their normal duties.	
8.	Discuss sprain care and follow-up treatment. Continue applying ice for 24 to 48 hours. Advise the worker to report to first aid in 24 hours or at the start of their next shift for follow-up care.	A handout on sprains care should be given to the worker (in Appendix C).

Assess		Response
9.	Complete the first aid record.	Verbalize first aid record completion.

Participant practice 1-06

Materials required

Gloves

Clean water or saline

Sterile gauze

Absorbent dressing

Adhesive tape

Blanket

Skin closures or band-aid

Worker handout sheet

Gauze roller and crepe roller

Assess, cleanse, and dress an open wound

Cut to the inner arm

Assess		Response
1.	Scene assessment — modified Assess initial appearance. What happened? Did you fall or hit your head? Is it safe back at injury site? Was anyone else hurt?	The worker's appearance is normal. While working on an automobile motor, the worker was cut on the arm by a piece of metal. No trauma to head or neck. Motor is shut off. No other workers hurt.

Assess		Response
2.	Primary survey — modified	The modified primary survey actually begins as the worker enters the first aid room and you question the worker.
	Airway	The worker is talking in a clear voice and the mechanism does not indicate major trauma.
	Breathing	Breathing is adequate as the worker is talking normally.
	Circulation • Skin colour • Rapid body survey — ask the worker "Did you hurt yourself anywhere else?"	You can see the skin colour is normal. "No, only my arm hurts." The modified primary survey is complete.
	Provide immediate care by supporting the injured arm and covering the wound with sterile gauze.	Based on information gathered, the worker can be treated sitting in the treatment chair.
3.	Wash hands and put on PPE (eye protection, gloves).	

Assess		Response
4.	Secondary survey — examination and assessment (modified head to toe): Thoroughly examine the arm from the shoulder to fingertips for other injuries. Examine around the wound for damage to underlying structures. Examine inside the wound for extent of damage, contamination, or material. Feel the hand for warmth (circulation). Ask if the worker can feel touch on the hand and fingers and if the worker can move the hand and fingers.	Vital signs are not required because the worker is not likely going to medical aid. History — no allergies, medications, medical problems. Chief complaint The cut is 2 cm long. It is not deep or jagged. There is minimal bleeding. There is no swelling. The cut appears clean. No other injuries on the arm. Hand is warm. The worker can feel and move the injured limb.
5.	Decide or confirm the need to refer the worker to medical aid.	There is nothing to indicate this injury will require medical aid.
6.	Clean by prolonged flushing of the wound with tap water.	
7.	Dry around the wound with sterile gauze.	
8.	Because this wound is open slightly (gapes), apply skin closures to bring the edges of the wound together to close it (an adhesive strip can be used to make wound closures).	Advise the worker the closures are to remain in place for 7 to 10 days.

Assess		Response
9.	Dress and bandage — apply: Sterile gauze Extra layers of gauze or an absorbent dressing A crepe roller bandage or roller gauze, if available	
10.	Discuss wound care and follow-up treatment: Advise the worker to keep the bandage clean and dry and to report back to first aid if the bandage gets wet or dirty or starts to come off and in 24 hours or at the start of their next shift for follow-up care.	A handout on minor wound care should be given to the worker (in Appendix C).
11.	Complete the first aid record.	Verbalize first aid record completion.
12.	Advise injured worker to ensure their tetanus immunization is up to date.	Worker received tetanus immunization less than five years ago.

There is an example of a completed first aid record in Appendix D of this guide.

Introduction — lecture, discussion

Wounds that should be referred to medical aid

Slide 27

Wound longer than 3 cm through the full skin thickness

Wounds to hands in areas of joints or tendons

Wounds that require sutures:

- Jagged edges
- Flap of full-thickness skin
- Gaping or difficulty closing

- Areas where the skin is under pressure
- Facial wounds

Slide 28

Burns

- Significant partial thickness (second degree)
- Any full thickness (third degree)
- Chemical burns
- Electrical burns

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Wounds that are very dirty, including human or animal bites

Wounds with embedded materials

Any sign of infection

Soft tissue strains, i.e., sprains or strains

Soft tissue strains refer to a group of disorders affecting muscles, tendons, bursae, nerves, and blood vessels. The injured worker must be referred to medical aid if there is no improvement with treatment and altered activity, or there is a suspected underlying problem.

Shoulder strain video

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Back strain video

Slide 31

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Module 2

Module 2

Objective

A competent intermediate first aid attendant will be able to:

Identify breathing emergencies

Identify a mild (partial) obstructed airway

Identify a severe (complete) obstructed airway

Clearing of an obstructed airway

Use a pocket mask

Perform CPR and use an AED

Module outline

Module 2	Airway, breathing, and emergencies	Minutes
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Instructor demo 2-01	Partial airway obstruction — responsive worker	5
Practice 2-01	Partial airway obstruction — responsive worker	5
Instructor demo 2-02	Complete airway obstruction — responsive worker	5
Practice 2-02	Complete airway obstruction — responsive worker	10
Discussion	Circulation system	2
Video	Chest pain	2
Discussion	Unresponsive worker	8
Skill-only practice 2-03	Ventilating a mannequin with a pocket mask	10
Instructor demo 2-04	CPR respiratory and/or cardiac arrest	5

Module 2	Airway, breathing, and emergencies	Minutes
Practice 2-04	CPR respiratory and/or cardiac arrest	20
Instructor demo 2-05	CPR respiratory and/or cardiac arrest with AED	10
Practice 2-05	CPR respiratory and/or cardiac arrest with AED	20
Discussion	Medical conditions	2
Video	Asthma	2
Video	Anaphylaxis	2
Video	Epinephrine	2
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Module 2

Airway and breathing emergencies — discussion

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Of all the procedures a first aid attendant can perform, clearing an airway and maintaining oxygen to the body's vital organs are truly lifesaving.

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In Module 2 we will cover:

Managing airway emergencies by clearing an obstructed airway:

- Responsive worker with mild or severe (partial or complete) obstruction

Managing breathing and circulation emergencies:

- Cardiopulmonary resuscitation (CPR)
- Automated external defibrillators (AED)

Air is delivered to the body through the respiratory system, and oxygen is transferred from the air to the bloodstream in the lungs and carbon dioxide is removed.

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At the top end of the airway are the nose, mouth, and throat, which, when obstructed, are most often obstructed the tongue.

When an unresponsive worker is lying on their back, the tongue can fall backward and obstruct the airway.

The tongue is lifted upward when a head-tilt chin-lift is performed.

Loose objects can also cause an obstruction and must be removed quickly:

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Food

Dentures

Teeth

Blood

Vomit

Swelling

Other objects

The universal sign of distress (or choking) is a person holding their throat.

The obstruction may be:

Mild (partial): Some air is getting past the obstruction.

Severe (complete): The airway is essentially blocked.

When there is a mild (partial) obstruction caused by food, fluid, or a loose object:

Reassure the worker and encourage them to cough.

Back blows and abdominal thrusts, or chest compression are not given as they may make the obstruction worse.

If the worker can’t speak or cough it is a severe (complete) obstruction:

Back blows and abdominal thrusts, or chest compressions are given to dislodge the object.

When a worker with a severely (completely) obstructed airway goes from responsive to unresponsive, the attendant lays the worker on their back and starts CPR.

After 30 chest compressions, the attendant looks in the mouth as the object may have been moved.

If an object is seen in the mouth, remove it before giving breaths and resuming CPR.

Participant practice 2-01

Materials required

Face shield, medical mask

Eye protection

Gloves

Manage a mild (partial) airway obstruction

Responsive, standing worker

The attendant hears a call for first aid needed in the lunchroom.

Assess		Response
1.	Scene assessment	No danger, one worker, the worker was eating.
2.	Assess responsiveness — AVPU	Worker is aware of you as you approach; worker is alert.
3.	Identify yourself and talk to the worker asking, "Are you choking?" and assess for blueness around the lips, ears, and fingernails.	The worker answers hoarsely, "I'm choking, help me!" There is no blueness (cyanosis) of the skin.
4.	Place the worker in a position of most comfort, reassure them, and encourage them to cough.	The worker continues to cough effectively (signs of a mild airway obstruction).
5.	Complete the primary survey.	
6.	Transport decision: decide or confirm the need to refer the worker to medical aid.	The obstruction is not clearing and the worker is becoming more anxious with obvious distress. This worker requires urgent medical attention.

Assess		Response
7.	Activate the worksite emergency response procedures: Instruct the co-worker calling the ambulance to say there is a responsive adult with a partial (mild) airway obstruction and to report back.	
8.	Continue to monitor the worker and if their condition worsens, instruct someone to call the ambulance back with this new information and follow the procedures for a severe (complete) airway obstruction.	
9.	Complete the secondary survey Vital signs History Head to toe	Secondary survey would be completed waiting for an ambulance or en route to medical aid in ETV.

Participant practice 2-02

Materials required

Face shield or medical mask

Eye protection

Gloves

Manage a severe (complete) airway obstruction

Responsive, standing worker

The attendant responds to a call for first aid needed in the lunchroom.

Assess		Response
1.	Scene assessment	No danger, one worker, the worker was eating.

Assess		Response
2.	Assess responsiveness — AVPU	Worker is aware of you as you approach; worker is alert.
3.	Identify yourself and talk with the worker asking, "Are you choking?" and assess for blueness around the lips, ears and finger nails.	The worker is unable to speak or cough. The worker nods yes and is very anxious. The worker is pale.
4.	Transport decision	Because the obstruction is not clearing and the worker is becoming more anxious with obvious distress you decide that this worker requires urgent medical attention.
5.	Activate the worksite emergency response procedures: Instruct the co-worker calling the ambulance to say "there is a responsive adult with a complete (severe) airway obstruction" and to report back.	
6.	Explain to the worker in a brief and calm manner what will be done. **Warning:** Abdominal thrusts and back blows must be simulated in the classroom.	
7.	Give up to five back blows, maintain contact with the worker, and move around to the side while supporting the worker with an arm across the upper body. Deliver up to five back blows between the shoulder blades.	The airway does not clear.

Assess		Response
8.	Give up to five abdominal thrusts standing behind and providing support to the worker, wrap your arms around the worker's waist, make a fist, and place it thumb side against the abdomen in the midline just above the navel, but below the ribs.	The airway does not clear.
9.	Repeat the sequence of five back blows and five abdominal thrusts until the object clears or the worker collapses.	The airway clears during the second set of abdominal thrusts.
10.	Complete the primary survey.	
11.	Reassess the need for urgent medical attention based on: Worker anxiety Primary survey findings Signs of oxygen deficiency Abdominal pain	No anxiety ABCs all normal No blueness No abdominal pain
12.	Reassess the ABCs every five minutes while waiting for the ambulance. If the worker's condition changes those changes must be updated and relayed to the ambulance dispatch.	
13.	Complete the secondary survey: Vital signs History Head to toe	

Circulation emergencies — lecture, discussion

The circulatory system is an arrangement of blood vessels that, under pressure from the heart,

channel blood throughout the body.

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Blood, moving constantly, transports life-giving oxygen and other nutrients to the body cells and removes carbon dioxide and waste.

The heart is a four-chambered, muscular organ, slightly larger than a fist, located just left of the centre of the chest behind the breast bone.

The heart's ventricles pump blood into the arteries 60–80 times a minute.

Slide 38

The body cannot store oxygen, and cells in vital organs like the brain will begin to die in as little as four minutes if the supply of oxygen is interrupted.

Atherosclerosis

Atherosclerosis is the buildup of fatty deposits in the inner walls of an artery. These deposits, known as plaque, are made up of fats such as cholesterol. As these deposits build, the artery is narrowed and the flow of arterial blood is restricted.

Over time, calcium can be deposited at the site, causing the area to harden and the vessel to lose its elasticity. This affects blood flow and increases blood pressure. Blood clots may form and break off, causing heart attacks.

Video — chest pain

Slide 39

Chest pain

A worker with chest pain may come to first aid.

Slide 40

Chest pain may indicate heart problems.

If the worker has a history of chest pain and has medication, the attendant can assist the worker in taking nitroglycerin medication:

Pills are placed under the tongue and allowed to dissolve — follow instructions.

Spray is also used orally according to instructions.

If available, workers with a suspected heart attacks can be offered two 80 mg chewable ASA tablets or one regular strength (325 mg) ASA tablet to chew and swallow.

- It must be ASA, not acetaminophen or ibuprofen.

- Ensure the worker does not have an allergy to ASA.

If this is the first time the worker has experienced chest pain, follow the priority action approach — worker requires urgent medical attention.

If pain has lasted longer than 15 minutes despite rest and medication, the worker requires urgent medical attention.

Unresponsive — discussion

Slide 41

An unresponsive worker who is not breathing or is not breathing normally must be:

Assumed to have no heartbeat (cardiac arrest) by a level one attendant (lay rescuer)

Assisted with an automated external defibrillator (AED) if available

Assisted with cardiopulmonary resuscitation (CPR)

Slide 42

The chain of survival is a series of steps aimed at decreasing death and disability due to cardiac or respiratory arrest.

Early recognition of warning signs

Early access to emergency care

Early CPR

Early defibrillation

Early advanced care

Slide 43

An AED is a machine that sends an electrical shock through the heart when certain lethal heart rhythms are detected. The AED:

Stops all electrical activity

Allows the heart to regain its normal pumping action

There are many models of AEDs available on the market.

The operation of each is basically the same but there are some differences:

Operational controls

Protocols in programming may not be current

Visual and audio capabilities

Battery replacement

Data collection method

Data collection is the electronic recording of arrest information while protocols are performed when the AED is attached to the worker.

AEDs are not on the list of equipment required to be supplied by the employer for B.C. workplaces. However, an employer, in consultation with the joint health and safety committee or worker representative, may decide to supply one.

If an AED is supplied at your workplace, the employer MUST ensure you receive training in the operation of that specific model.

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In addition to the AED itself, an AED unit should consist of:

Protective case

- Weatherproof if the AED is to be exposed to an outside environment.
- If it's to be used in a cold environment (approaching freezing), a heated case may be a way of warming the AED.

Extra unexpired, unused battery

Two sets of AED pad electrodes

Disposable razor

A cloth or towel

User or instruction manual

Scissors

Considerations when using an AED include:

Slide 45

Establish inspection and maintenance protocols and logs as required by manufacturer's directions.

AED use is safe for pregnant people and children.

Carefully remove any patch medications with gloves and wipe any excess medication from the chest with a clean cloth or gauze pad.

Place AED pad electrodes 1 inch away from implanted pacemakers or implanted defibrillators.

Ensure AED pad electrodes are well applied to the chest.

Shave area where pads will attach if chest is very hairy.

Wipe the chest with towel or cloth before applying AED pad electrodes if the chest is wet.

If attendant or worker is in standing water move to an area with no standing water.

The injured worker’s best chance for survival is the delivery of good-quality CPR until an AED is available.

When it is available, the AED is used immediately.

If the worker shows any signs of life, stop resuscitation efforts and assess airway and breathing.

Signs of life include:

- Normal breathing resumes (occasional gasps are not considered to be normal breathing).
- Worker moves or coughs.
- Worker becomes responsive.

When an AED is not available, CPR is performed.

The AED is used as soon as it is brought to the scene.

Participant practice 2-03

Materials required

Gloves

Mannequin

Pocket mask with one-way valve

Skill-only guided practice of:

Holding a pocket mask on the face and breathing into the mannequin

Assess		Response
1.	Place the mask in the proper position over the worker's nose and mouth and establish a good seal.	
2.	Breath into the worker ensuring the chest wall rises.	

Participant practice 2-04

Safety alert
Students are required to perform CPR compressions during this course. Performing CPR compressions on a classmate for real could result in discomfort or injury. Students must only perform chest compressions when practicing on a mannequin.

Materials required

Eye protection

Gloves

Pocket mask

Mannequin

Manage a worker in respiratory and/or cardiac arrest

The attendant is called to the workplace shipping and receiving area for an unresponsive worker.

Assess		Response
1.	Scene assessment The first aid attendant is called to a lounge area by a co-worker.	No danger; machines are all stopped and area is secured. One worker. Co-workers in the area report one worker was found slumped over in a chair and was carefully placed on floor.
2.	Assess responsiveness — AVPU	Worker does not respond to your voice or pain.
3.	Approach the worker from the front, identify yourself, and attempt to talk with the worker. Pinch the finger on the workers hand closest to you.	The worker does not respond to pain.
4.	Transport decision	Because this worker is unresponsive, you decide that this worker requires urgent medical attention.
5.	Activate the worksite emergency response procedures: Instruct the co-worker calling the ambulance to say “there is an unresponsive adult worker” and to report back.	
6.	Primary survey From the side of the worker, open the airway using a head-tilt chin-lift. Assess breathing for 5–10 seconds.	There is no breathing.

Assess		Response
7.	Request any other first aid attendants or co-workers trained in CPR to assist. Designate co-worker to go get the AED if one is available at the worksite. Update the ambulance that you are starting CPR (the worker is in cardiac arrest). Ensure the worker is on a hard surface.	An AED is not available. CPR should be initiated for all unresponsive workers who are not breathing normally or who are only breathing with occasional gasps.
8.	Start CPR: Expose the chest as necessary. Place hands in the centre of the chest, between the nipples. Perform 30 chest compressions.	Compress the chest at least 5 cm (2 in.). At a rate of at least 100 to 120 per minute. Push hard, push fast. Allow the chest to recoil after each compression.
9.	After each set of 30 chest compressions, using a pocket mask, give the worker two breaths.	One second per breath, just enough to see the chest rise. Air goes in and the chest rises.
10.	Repeat the sequence of 30 compressions and two breaths until: An AED arrives A physician assumes responsibility Worker is transferred to ambulance personnel The attendant is physically exhausted and unable to continue Spontaneous breathing and circulation are restored	If possible, switch off with another trained rescuer every two minutes.

Assess		Response
11.	If spontaneous breathing is restored, complete the primary survey and secondary survey.	Secondary survey would be completed waiting for an ambulance or en route to medical aid in ETV.
If available, have helper take over compressions. Switch roles every two minutes or five cycles of 30:2.		

Note: Any worker in cardiac arrest must receive CPR unless there is clear evidence that death has occurred, for example, if there is decapitation, transection, decomposition, an adult who has been submerged in water for over 60 minutes, or in certain triage situations.

Safety alert
Students are required to perform CPR compressions during this course. Performing CPR compressions on a classmate for real could result in discomfort or injury. Students must only perform chest compressions when practicing on a mannequin.

Participant practice 2-05

Materials required

Gloves

Pocket mask with one-way valve

Mannequin

AED

The attendant is called to the restroom for an unresponsive worker

Assess		Response
1.	Scene assessment The first aid attendant is alerted about a medical situation in one of the restrooms.	No danger One worker Co-workers in the area report one worker suddenly felt ill and was helped to the floor No trauma

Assess		Response
2.	Assess responsiveness — AVPU	Worker does not respond to your voice or pain.
3.	Approach the worker from the front, identify yourself, and attempt to talk with the worker. Pinch the finger on the worker's hand closest to you.	The worker does not respond to pain.
4.	Transport decision	Because this worker is not responsive, this worker requires urgent medical attention.
5.	Activate the worksite emergency response procedures: Instruct the co-worker calling the ambulance to say "there is an unresponsive adult worker" and to report back.	
6.	Primary survey From the side of the worker, open the airway using a head-tilt chin-lift. Assess breathing for 5–10 seconds.	There is no breathing.
7.	Request any other first aid attendants or workers trained in CPR to assist. Designate a co-worker to update the ambulance that you are starting CPR/AED.	An AED is readily available at the scene.

Assess		Response
8.	Prepare the AED: Position the AED so it is located on the side of the worker closest to the operator. Open and turn on the AED. Follow voice prompts. Ensure the AED pads are not expired or torn and are connected to the AED.	**Note:** The AED model at the workplace may operate differently. The employer must ensure that the attendant is trained on the specific model used at the workplace.
9.	Attach the AED: Prepare the worker's chest for the AED pads. Remove the backing from the pads and place one pad below the worker's right collar bone and the other pad on the left side of the chest, just below to nipple level.	Worker's chest is dry. There is no chest hair. There are no medication patches or any implanted medical devices.
10.	Analyze the heart rhythm: Ensure no one is touching the worker and everyone is standing clear. Continue following voice prompts.	The AED gives a "Shock Advised" prompt.
11.	Deliver a shock: Ensure no one is touching the worker and everyone is standing clear. State: "I'm clear, everyone is clear, do not touch the worker." Press the shock button if the AED advises.	If a "No Shock" prompt was given, then two minutes of CPR is administered before the heart rhythm is re-analyzed.
12.	Administer two minutes of CPR: Repeat 30 compressions to two breaths four a total of five cycles.	

Assess		Response
13.	Repeat cycles of analyze shock or no shock and two minutes of CPR until: A physician assumes responsibility The worker is transferred to ambulance personnel The attendant is physically exhausted and unable to continue Spontaneous breathing and circulation are restored	If possible, switch off with another trained rescuer every two minutes.
14.	If spontaneous breathing is restored, primary survey and secondary survey would be completed.	Secondary survey would be completed waiting for an ambulance or en route to medical aid in ETV.

Note: If the chest doesn't rise when the first aid attendant tries to breathe into the worker, after each subsequent set of compressions the first aid attendant should look in the mouth and remove any obstructions before attempting to breathe again.

Medical conditions

There are a number of medical conditions that commonly occur in the workplace that the attendant may have to deal with.

In some cases these are pre-identified conditions that the worker is aware of and may have medication for.

These conditions may vary from minor discomfort to life-threatening, depending on the circumstances.

General treatment for all medical conditions follows the priority action approach, specifically the ABCs.

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Follow the priority action approach.

Maintain an open airway.

Perform any critical interventions required.

Calm and reassure the worker.

Activate the workplace emergency response procedures.

Follow directions on any medication the worker may have.

Update the ambulance if the worker's condition gets worse.

Asthma

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Asthma may be caused by:

An allergic reaction

A respiratory infection

Exposure to irritants

Asthma can also be induced by exercise.

Main signs and symptoms of asthma are:

Whistling or high-pitched wheezing during respiration

MedicAlert bracelet or necklace indicating asthma

Most people who have asthma will carry some form of medication with them, such as:

An oral medication (tablets)

Some type of inhaler that releases a mist for the worker to breathe in

Anyone having an asthma attack requires urgent medical attention.

Video — anaphylaxis

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Anaphylaxis

Slide 50

Anaphylaxis is a condition associated with allergic reactions that can happen quickly and can be severe enough to kill.

Common causes include reactions to insect bites and certain foods. Main signs and symptoms of anaphylaxis are:

Swelling of the tongue, face, and neck area

Difficulty breathing or rapid breathing — wheezing

MedicAlert bracelet or necklace indicating an allergy

Most people who know they have a serious allergy will carry a device called an epinephrine auto-injector such as EpiPen®, a spring loaded syringe that will administer a premeasured dose of epinephrine to counteract the allergic reaction**.**

Assist the worker with the epinephrine auto-injector if available:

- Ensure the proper end with the needle is facing the worker.
- Help them to hold the injector at a 90-degree angle to the skin and press against the thigh muscle.
- Once the "click" is heard hold the pen in place for a full 10 seconds.
- Massage the area to aid in quicker dispersal.
- If no improvement in five minutes assist with a second dose.

An attendant may administer an epinephrine auto-injector to an unresponsive worker if the following three criteria are met:

There is history of exposure to an allergen.

The worker shows signs of anaphylactic shock.

There is no known reason not to give the epinephrine auto-injector, for example, if the worker has a known heart condition.

Anyone in anaphylaxis requires urgent medical attention.

Epinephrine auto-injector

Video

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Module 3

Module 3

Objective

A competent intermediate first aid attendant will be able to:

Manage bleeding

Identify the signs of shock

Reposition an injured worker

Identify common medical emergencies

Manage common medical emergencies

Module outline

Module 3		
Lecture, discussion	Shock and bleeding	10
Instructor demo 3-02	Internal bleeding — sitting worker	5
Practice 3-02	Internal bleeding — sitting worker	15
Guided practice 3-03	Loop tie, pressure bandage, elastic Velcro strap	20
Instructor demo 3-04	External bleeding — standing face up	5
Practice 3-04	External bleeding — standing face up	20
Guided practice 3-05	Tourniquet	15
Lecture, discussion	Medical conditions	10
Mod 3 total		**100**

Module 3

Shock and bleeding — lecture, discussion

Recognition of shock and the control of bleeding are essential to the survival of the injured worker.

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In Module 3 we will cover:

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What is shock?

How do we recognize shock?

Control of bleeding.

Identification and management of various medical emergencies.

We've seen that blood, in the circulatory system, transports oxygen and nutrients to all the cells of the body and removes wastes.

If for some reason something interferes with this transportation system, the cells are no longer adequately supplied with oxygen and start dying.

This state of oxygen starvation is called shock.

Slide 55

Shock is a progressive condition and can quickly become irreversible. Workers in shock require urgent medical aid.

Recognizing shock early is one of the most important functions of the first aid attendant.

Slide 56

A person is in shock if:

The skin is pale and cool and there is a history of major external bleeding or internal injury.

The skin is pale, cool, and clammy.

Recognizing shock is critical — unless this is done quickly, the person may die.

Slide 57

Activate the workplace emergency response procedures.

Stop any external bleeding.

Avoid unnecessary movements.

Place worker on their back.

Protect the worker from the elements.

Keep the worker comfortably warm.

Give nothing to drink.

Slide 58

For the control of external bleeding:

Position the worker lying down.

- With worker at rest, heart rate slows — this slows bleeding.

Pressure — directly over the wound after exposing the area compresses the blood vessels, stopping the bleeding. A helper holds for completing the primary survey. Then:

- Apply dressings and a bandage that will maintain even pressure over the wound area.
- Check for re-bleeding during ABC reassessment.
- Update the ambulance if the worker's condition changes.

If dressing and bandage become soaked with blood, add a second dressing and bandage but do not remove the first bandage because it would disturb the clotting process.

A tourniquet is applied if direct pressure is not controlling the bleed or the limb is entrapped and you do not have access to the bleed. In these circumstances a tourniquet may be used to control the bleed.

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Application for a partial amputation, severe bleed:

- Apply the tourniquet to the middle of the upper limb.
- Do not place over a joint.
- Tighten till the bleeding stops.
- Lock the tourniquet in the tightened position.

Application for a complete amputation:

- Apply the tourniquet 5 cm (2 in.) above the amputated part.
- Tighten till the bleeding stops.
- Lock the tourniquet in the tightened position.

Tourniquet application marking:

- Mark the worker in some way that it will be easy to see that a tourniquet has been applied. The time it was applied.

Participant practice 3-01

Materials required

Gloves

First aid kit

Blanket

Manage internal bleeding

Responsive, sitting on ground or floor

A responsive sitting worker with suspected internal bleeding

The first aid attendant responds to a call for first aid in the warehouse. A worker was struck by a moving forklift.

Assess		Response
1.	Scene assessment First aid attendant is called to the warehouse.	No danger One worker Knocked down by a moving forklift
2.	Assess responsiveness — AVPU	The worker's eyes are open and they are aware of you as you approach; worker is alert.
3.	Approach the worker from the front with a first aid kit and blanket, identify yourself, and attempt to talk with the worker.	The worker responds with clear speech and is very anxious, complaining of pain in the upper abdomen; the skin looks pale.
4.	Transport decision	This worker requires urgent medical attention (mechanism and cool, pale skin).
5.	Activate the worksite emergency response procedures: Instruct the co-worker calling the ambulance to say there is a conscious adult hit by a forklift who may be in shock and to report back.	

Assess		Response
6.	With support of the head, neck and upper body, lay the worker face up with a co-worker's assistance. Tell the worker not to move their head and explain what you are going to do. Kneel beside the worker steady and support the head and neck. Direct a co-worker to go to the opposite side and assist in laying the worker onto their back. Direct the helper to support the head.	
7.	Assess the breathing.	Breathing is shallow, but effective.
8.	Assess the skin.	The skin is cool, pale, and clammy; the worker is irritable and anxious.
9.	Conduct a rapid body survey: Expose the chest (using scissors in kit).	No major external bleeding or gross deformity. Worker complains of pain in right upper abdomen.
10.	Cover the worker with a blanket and reassure the worker.	
11.	Reassess the ABCs every five minutes while waiting for the ETV or ambulance. If the worker's condition changes, those changes must be update relayed to the ambulance dispatch.	

Participant practice 3-02

Materials required

Gloves

First aid supplies

Skill-only guided practice of:

The application of a loop tie

The application of a pressure dressing

The application of a quick strap

Assess	Response
The application of a loop tie on the upper leg	
The application of a pressure dressing on the upper leg	
The application of a quick strap on the upper leg	

Each participant will practise the application of a loop tie, pressure dressing, and quick strap on their own leg.	**Guided practice**

Participant practice 3-03

Materials required

Gloves

Triangular bandage

Elastic Velcro strap

Blanket

First aid kit with supplies

Manage external bleeding

Responsive, face up

External arterial bleeding from the thigh of a responsive standing worker. The worker was cut by a circular saw.

The attendant has been called to the fabrication area for an injured worker.

Assess		Response
1.	Scene assessment	No danger, scene is safe; the circular saw is unplugged. One worker. There is large bleed in the thigh area. The worker is anxious. Colour appears normal.
2.	Assess responsiveness — AVPU	The worker's eyes are open and is aware of you as you approach; worker is alert.
3.	Approach the worker from the front, identify yourself, talk to the worker, and put on appropriate PPE.	Worker responds with clear speech.
4.	Transport decision	Because this worker has a large bleed, this worker requires urgent medical attention.
5.	Activate the worksite emergency response procedures: Instruct the co-worker calling the ambulance to say there is a responsive adult who cut their leg with a circular saw and to report back.	
6.	Go straight to the bleed, expose the area using the scissors in the kit and apply pinpoint direct pressure over the wound site (use bulky dressings).	The bleeding stops with direct pressure.
7.	Direct the co-worker to face shield, protective eyewear (if available) and to put gloves on and maintain direct pressure on the dressings.	

Assess		Response
8.	Assess the airway and breathing.	The breathing is normal.
9.	Look for signs of shock.	Skin is normal colour, warm and dry.
10.	Complete the rapid body survey.	Nothing else found.
11.	Apply an additional dressing over the first one if blood has soaked through the original dressing, and apply a bandage.	Bandage must be tight enough to control bleeding without cutting off circulation. All dressing must be covered with the bandage.
12.	Cover worker with a blanket and reassure the worker.	
13.	Reassess ABCs including a check of the bandaged area for re-bleeding.	The bandage is becoming blood soaked.
14.	Apply an additional dressing and another bandage over the original bandage — update the ETV or ambulance if there are any changes.	**Note:** Have students use a different bandage style as the first one applied.

Participant practice 3-04

Materials required

Gloves

First aid supplies

Commercial tourniquet

Participant practice (skill-only):

The application of a tourniquet

Assess	Response
Each participant will practise the application of a tourniquet on their own upper leg.	

Medical conditions continued — lecture, discussion

Slide 60

Follow the priority action approach.

Maintain an open airway.

Perform any critical interventions required.

Calm and reassure the worker.

Activate the workplace emergency response procedures.

Follow directions on any medication the worker may have.

Update the ambulance if the worker's condition gets worse.

Video

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Stroke

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A stroke is sudden brain damage caused by a blocked or ruptured blood vessel in the brain. The worker requires urgent medical attention.

A severe stroke may cause death, and a less severe one may cause impairment of certain body functions.

Signs and symptoms of a stroke may be identified with the FAST mnemonic.

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Facial drooping, ask them to smile

Arm weakness, have them lift both arms straight in front of them

Speech difficulty

Time to call 911

If the worker is unresponsive, position the worker in the recovery (¾-prone) position due to a high probability of vomiting.

A person suffering from a stroke may be unable to speak but will probably be able to hear and understand what is being said. Be sensitive about what is said around the worker.

Diabetic emergencies

Slide 64

Diabetes is a disease that affects the body's ability to regulate the level of blood sugar.

Signs and symptoms may vary significantly depending on the sugar and insulin levels in the blood and could include:

Decreasing level of consciousness

Pale, clammy, or warm dry skin

Confusion, restlessness, irrational behaviour; may appear intoxicated

MedicAlert bracelet or necklace indicating diabetes

If unresponsive, position the worker in the recovery (¾-prone) position, reassess the ABCs and update the ambulance of any changes.

If fully responsive give sugar, honey, syrup, fruit juice, pop (not diet pop), or candy bars.

If condition does not improve immediately or worker has a decreasing level of consciousness, they require urgent medical attention.

Seizures

Slide 65

Seizures are generalized body convulsions that can be caused by epilepsy, alcohol or drugs, or neurological conditions; require urgent medical attention.

Attempt to position the worker in the recovery position to help drain fluids from the airway.

While the seizure is ongoing, protect the worker from further injury and maintain an open airway.

After a seizure, a worker is often unresponsive. Reassess the ABCs every five minutes.

Update the ambulance (if calling the ambulance is part of the workplace emergency response procedures) if there are any changes in the worker's condition.

Fainting

Slide 66

Fainting is a loss of responsiveness not usually associated with trauma.

People may faint for a wide variety of reasons, but it is usually of a short duration and the worker becomes responsive quickly.

Signs and symptoms of fainting include:

A loss of responsiveness usually for a brief period

The worker may feel weak, and/or dizzy

Even if the worker becomes responsive quickly, it is best to keep them lying down. Allowing them to sit or stand up too soon may result in the worker fainting again.

It is important that the worker is transported to medical aid for the cause to be investigated.

If the worker does not become responsive quickly, they require urgent medical attention. Reassess ABCs every five minutes and update the ambulance if the worker's condition changes.

Burns

Slide 67

Burns require careful assessment.

Excessive external heat causes damage to the skin and possibly the underlying structures. Burns can also be caused by:

Ultraviolet light (snow blindness, arc flash or welder flash)

Chemical exposure

Electrical contact

Steam

Radiation (x-ray)

Friction (blister)

The extent of damage from a burn depends on the size of the area affected and the depth of the tissue involved.

When discussing depth, burns are described as first, second, or third degree.

Superficial burns (first degree)

Involve outer layer of skin causing redness and pain

Do not require medical aid unless large areas of the body are involved

Partial-thickness burns (second degree)

Involve the second layer of skin causing blisters and pain

Fluid loss into the blisters can be a complication

Require medical aid if significant or in sensitive areas

Full-thickness burns (third degree)

Involve full thickness of skin and underlying tissues

Damage to nerve endings so may be less pain

May appear charred or dry and pale

Fluid can be lost into tissue spaces

Require immediate cooling and urgent medical aid

Management of burns involves immediate cooling after the primary survey (cool for 10 minutes minimum).

If worker is walking use sink or tap.

Use wet dressings on larger burns.

Cool until worker feels relief.

Take off rings, watches or clothing.

Dress and bandage as for any open wound.

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Module 4

Module 4

Objective

Module 4 is an introduction to rapid transport criteria. Intermediate and advanced first aid attendants must understand when the anatomy of injury or illness, primary survey findings, or mechanism of injury places the injured or ill worker into the rapid transport category.

Module 4 — Rapid transport criteria

To ensure that seriously injured patients are transported to hospital as soon as possible, the rapid transport criteria have been developed. Trauma specialists have developed this list of criteria and it is used throughout North America. These criteria help the first aid attendant determine which patients must be transported as soon as possible.

The following criteria must be memorized and carried with the first aid attendant always for handy reference. Whether a patient meets the criteria can be established by considering:

Mechanism of injury

Anatomical criteria

Physiological criteria

Slide 70

Mechanism of injury

Free fall from a height greater than 6.1 m (approx. 20 ft.) (one story is equal to approx. 3 meters/10 ft.)

Severe deceleration in a motor vehicle incident characterized by:

- High-speed accident or major vehicular damage
- Broken windshield, bent steering wheel, or significant damage to the passenger compartment
- Occupant thrown from vehicle (i.e. ejection), partial or complete
- One or more vehicle occupants killed
- Rollover type of incident (e.g., with a forklift)

Slide 71

Pedestrian, motorcyclist, or bicyclist struck at greater than 30 km/h (20 mph)

Severe crush injuries

Smoke or toxic-gas inhalation, or carbon monoxide poisoning

Decompression illness

Drowning

Electrical injuries

Slide 72

Anatomical criteria

Severe brain injury, defined as one or more of the following:

Glasgow Coma Score of 13 or less

- Depressed skull fracture
- New paralysis or neurological deficit
- Facial injury with potential for airway compromise
- Penetrating injury to the head, neck, chest, abdomen, groin, or extremities proximal to (above) elbow or knee
- Two or more proximal long-bone fractures (e.g., femur, humerus)
- De-gloved or pulseless extremity
- Chest wall instability or deformity – e.g. Flail chest
- Pregnant person with significant trauma (e.g., a limb fracture, chest or abdominal trauma)
- Pelvic fracture

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Major Burns:

- Facial burns with or without inhalation injury
- Extensive facial burns
- Electrical burns
- Second-degree (partial thickness) burns to more than 10% of the body surface
- Third-degree (full thickness) burns to more than 2% of the body surface
- Burns encircling a limb
- Major burns to the hands, feet, or genitalia
- Chemical burns

Amputation of an extremity other than a toe or finger

Spinal cord injury, paraplegia, or quadriplegia

- Penetrating eye injuries

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Physiological Criteria

Decreased level of consciousness (does not respond with clear speech)

Pupillary inequality greater than 1 mm and sluggish response to light with altered level of consciousness

Partial or complete airway obstruction

Respiratory distress or ineffective breathing (Respiratory rate < 10 or > 30)

Any condition requiring assisted ventilation

Cardiac arrest

Suspected heart attack

Obvious shock

Bleeding requiring the application of a tourniquet

Acute poisoning, if directed by Poison Control Centre

Seizures (involving shaking of the body) or Status epilepticus

Stroke

Anaphylactic reaction

Moderate or severe hypothermia

Heatstroke

If the patient meets any of the preceding criteria, rapid transport is required.

Any treatment prior to packaging for transport should be limited to critical interventions. Be sure to activate the workplace emergency response procedures early. Notify BC Emergency Health Services (BCEHS) early, and provide as full a description of the event and the findings of the patient as possible. Have a high degree of suspicion for high-energy mechanisms and a high degree of suspicion for internal injuries.

The ambulance service sends different resources based on information provided in your call. If you find new information after your first call to BCEHS that you think is important, contact BCEHS again to provide an update.

From the moment it is decided that a patient must be rapidly transported to hospital, only critical interventions should be performed. All other efforts must be directed at preparing the patient for safe transport as rapidly as possible.

If, during the primary survey, it is determined that the patient is in the rapid transport category, the first aid attendant must only:

Carry out critical interventions for problems with the airway, breathing, and circulation

Complete the primary survey

Reassess the patient's ABCs

The primary survey and critical interventions should be completed in less than five minutes. Rapid intervention is the priority. The secondary survey should be conducted en route to hospital or while the patient is waiting for transport. The first aid attendant must focus on reducing scene time and ensuring precious minutes are used only to do that which is necessary at the scene. The priority is to conduct necessary critical interventions only and get the patient en route to medical aid as quickly as practicable.

Module 5

Module 5

Objective

A competent intermediate first aid attendant will be able to:

Perform a primary survey for a responsive and unresponsive worker

Perform a secondary survey for a responsive and unresponsive worker

Identify when ongoing assessments must be performed

Module outline

Module 5		
Lecture, discussion	Secondary survey	7
Instructor demo 5-03	Secondary survey — responsive	10
Guided practice 5-03	Secondary survey — responsive	20
Lecture, discussion	Ongoing assessments	2
Mod 5 total		**39**

Module 5 — secondary survey

Secondary survey

Purpose

The secondary survey is similar to the primary survey, except this assessment is more detailed and takes longer. The purpose is to determine the full extent of the developing injury or illness, and to identify any other injuries or illnesses that may not have been discovered during the primary survey.

What it includes

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The secondary survey includes the following areas of assessment:

Vital signs

History taking

Head-to-toe examination

Vital signs

The patient's vital signs help you identify life-threatening conditions that may develop while the patient is in your care. Always record the time the vital signs were taken so that changes in the patient's condition can be evaluated over time.

Vital signs must be reassessed:

Every 10 minutes for all patients transported by BCEHS

Every 30 minutes for patients who do not require transport to medical aid by BCEHS

Vital signs include an assessment of the patient's:

Breathing rate and quality (count for 15 seconds and multiply by four)

Level of consciousness using AVPU

Heart rate and quality (count for 15 seconds and multiply by four)

Skin colour, skin temperature, and skin condition, whether the skin is moist or dry

History taking

History taking is a verbal assessment of what the patient feels and the patient's past medical history. The four components of history taking are:

Chief complaint: Where does it hurt? What happened?

Allergies: medications, chemicals, foods, pollens, animal fur, or dust

Medications: name of drug, dose, frequency, purpose, and compliance

Past medical history: anything related to current problem or illness history, including any recent hospitalizations

Head-to-toe examination

Carefully check the patient from head to toe looking for injuries that were not identified during the primary survey.

Secondary survey — responsive

Instructor demonstration 5-01

Goal
Complete a more thorough assessment of a responsive patient to determine the full extent of the developing injury or illness, and identify any other injuries or illnesses.
Scenario
A worker fell 3 m (9.8 ft.) from a stepladder. The worker was lying supine when you arrived, complaining about severe pain in their right knee. The patient is unwilling to move their knee because it hurts much more when moved. You've decided to call for an ambulance or the workplace ETV. While waiting, complete a primary and secondary survey in the position found.

Assess		Response
1.	Complete a scene assessment.	Based on the mechanism of injury, spinal motion restriction is required.
2.	Assess the patient's level of consciousness. Approach patient from front. Identify yourself and advise the patient not to move. Ask what happened. Alert: Patient is aware of surrounding. Verbal: Patient responds when spoken to. Pain: Patient doesn't respond to questions, but responds to painful stimulus. Unresponsive: Patient doesn't respond to any stimuli.	Alert and verbal. Worker complains of back and knee pain.

Assess		Response
3.	Manually stabilize head and neck: a. Brace elbows. b. Hands on either side of head. c. Don't cover the patient's ears. d. Gently support in position found.	Patient allows you to support the head.
4.	If possible, train a helper to take over manual stabilization: "Hands over mine, fingers and thumbs where mine are, elbows braced. Don't move while I reposition myself. Let me know if you have to move so I can help." If there is no help available, you may have to improvise by asking the patient to lie still and by using readily available materials to maintain head support until help arrives.	Use sandbags as helper.
5.	Activate the workplace emergency response procedures. If patient is unable or unwilling to walk, ask someone to call an ambulance. If calling an ambulance, say "there's a responsive adult who has fallen and has knee pain," and report back.	Patient can't walk. Send for an ambulance; patient is non-ambulatory.
6.	Assess the patient's airway. Can patient speak clearly? If not, look, listen, and feel.	Speaks clearly. The airway is clear.
7.	Assess the patient's breathing. Is patient breathing? Look, listen, and feel.	Patient is breathing normally.

Assess		Response
	Assess the patient's circulation. Signs of shock (cool, pale, clammy skin) Rapid body survey (massive bleeding)	No signs of shock. No blood visible. No injury other than back pain and severe knee pain. Provide support for the injured leg in the position found.
8.	Determine if critical interventions are required.	The patient appears to be stable.
9.	Transport decision: rapid transport, medical aid, or return to work?	The patient can't walk and can't return to work. An ambulance has been called.
10.	Start the secondary survey. Record the patient's name, date, time, and all the secondary survey findings.	As provided
11.	Assess breathing rate and quality: Rate: Count chest wall movements (in and out is one breath). Multiply 15-second interval by four. Normal is 12–20 per minute. Quality: Effective, even, deep, shallow, distressed, laboured, gasping	Their breathing rate is 12 per minute. Their breathing is effective and even. Both sides expand equally.

Assess		Response
12.	Assess level of consciousness: Approach patient from front. Identify yourself and advise the patient not to move. Ask what happened. Alert: Patient is aware of surroundings. Verbal: Patient responds when spoken to. Pain: Patient doesn't respond to questions, but responds to painful stimulus. Unresponsive: Patient doesn't respond to any stimuli.	Patient answers all your questions appropriately. Patient is alert.
13.	Assess heart rate and quality: Rate: Count pulse. Multiply 15-second interval by four. Normal is 60–80 per minute. Quality: weak, strong, regular, irregular	Their heart rate is 88 per minute. Their pulse quality is regular and easy felt.
14.	Assess skin colour, temperature, and condition: Pale = blood loss and possible shock Blue = cyanosis (low oxygen), possible cardiorespiratory emergency Cold, sweating = possible shock	Skin is normal, dry, and warm. No signs of shock.
15.	Record patient's medical history: Where does it hurt? What happened? Allergies? Medical alert devices? Medications: name, dose, frequency, purpose, compliance Past medical history related to current problem	Fell off stepladder. Sharp pain in lower back and right knee. Back hurts when touched. Knee hurts when moved and touched. No allergies. No medical alerts. No medications. No relevant past medical history.

Assess		Response
16.	Complete head-to-toe check. Look for injuries not identified earlier. Check circulation: skin temperature and colour Check motor and sensory function: range of motion Check sensory function: move toes and feet	There is pain in the lower back (lumbar), no swelling. There is redness and slight swelling distal to the patella on the anterior side. Patient refuses to move the injured leg due to a significant increase in pain when it's moved. No other injuries found. Circulation, motor function and sensory function are equal on all extremities.
17.	Reassess the ABCs at five-minute intervals	ABCs same as vitals. No change.

Participant practice 5-01

Working in groups of two, with sandbags, each participant will practise the secondary survey for a responsive worker.	

An example of how to perform a secondary survey on an unresponsive worker can be found in appendix A of the manual.

Discussion

Ongoing assessments

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Airway, breathing, and circulation

The airway, breathing, and circulation (ABC) assessments, as explained in the primary survey, are repeated:

Every five min for patients who require transport by BCEHS

Every 10 minutes on other patients

If critical interventions were required, check the ongoing effectiveness.

Vital signs

After completing the secondary survey, the vital signs should be reassessed:

Every 10 minutes for patients who require transport by BCEHS

Every 30 minutes on other patients

Module 6

Module 6

Objective

A competent intermediate first aid attendant will be able to:

Manage a partial airway obstruction due to fluids

Identify the signs of breathing distress

Identify different types of chest injuries

Manage breathing distress

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Module outline

Module 6		
Lecture, discussion	Airway and breathing management urgency	2
Instructor demo 6-01	Partial airway obstruction due to fluid	5
Practice 6-01	Partial airway obstruction due to fluid	10
Lecture, discussion	Chest injuries	10
Instructor demo 6-02	Respiratory distress — responsive	5
Guided practice 6-02	Respiratory distress — responsive	10
Mod 6 total		**42**

Discussion

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Airway emergencies and breathing emergencies are life-threatening and require rapid transport to medical aid. Follow the priority action approach.

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A worker with a partial airway obstruction due to fluid must be immediately rolled onto their side, and the attendant will perform a finger sweep to help clear the airway.

Instructor demonstration 6-01

Goal
Clear and maintain the airway of an unresponsive patient with a partial airway obstruction due to fluids.
Scenario
A worker was struck in the face by the moving hook of an overhead warehouse crane. The worker was knocked to the ground. When you arrive, they are lying supine not moving, with blood on their face.

Steps		
1.	Conduct a scene assessment.	The crane hook is secure and the crane has been deactivated. There are no hazards. One person injured. Based on mechanism of injury, spinal motion restriction is required.
2.	Assess the patient's level of consciousness. Approach the patient from the front, identify yourself, and attempt to communicate. Do not attempt painful stimulus due to urgent need to manage the airway.	Patient doesn't respond to verbal stimulus. There is blood in and around the patient's mouth. You hear gurgling.
3.	Activate the workplace emergency response procedure. Ask someone to call an ambulance and tell them "there is an unconscious adult with facial trauma."	

Steps		
4.	Manage the airway: Assess the airway for 5–10 seconds. Ask for help if available. Roll the patient into the lateral position while you maintain stabilization of the head and neck. Finger sweep the mouth and reassess the airway while lateral.	Patient is gurgling. There is fluid in the airway. Finger sweep clears the airway. The patient is breathing quietly but fluid continues to drain.
5.	Maintain the patient in lateral or ¾-prone position for the remainder of the call.	
6.	Assess breathing.	Patient is breathing normally.
7.	Assess circulation: Signs of shock (cool, pale, clammy skin) Rapid body survey (bleeding)	No signs of shock. No injuries beyond facial trauma.
8.	Apply a blanket for warmth.	
9.	Transport decision: rapid transport.	
10.	Complete a secondary survey while waiting for transport.	
11.	Reassess ABCs every five minutes.	
12.	Reassess vital signs every 10 minutes.	
13.	Complete a first aid record and a patient assessment chart.	

Participant practice 6-01

Working in groups of two, each participant will practise the primary survey for an unresponsive worker.	**Participant practice**

Discussion

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Respiratory system

The major components of the respiratory system are:

Airway: nose, mouth, pharynx, trachea, and bronchi

Lungs: bronchioles, alveoli, and pleura

Thorax: muscles and bones involved in breathing

Breathing

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During inhalation:

Respiration muscles contract, pulling down the diaphragm.

It lifts the ribs, enlarges the thoracic cavity.

Thoracic cavity enlarges, pressure decreases, causing a negative pressure within the chest.

Negative pressure causes lung tissue to expand.

Air rushes in to fill the air sacs.

During exhalation:

Respiration muscles relax.

It decreases the size of the thoracic cavity.

Pressure in the chest increases.

Air is pushed out through the trachea.

Respiratory distress

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General signs and symptoms of respiratory distress include:

Shortness of breath (dyspnea)

Gasping

Blue lips, fingernails, or earlobes (cyanosis)

A history of chest trauma or respiratory illness

Pain at the injury site

Pain when taking a deep breath

Chest injuries

With a chest injury, you may not be able to tell the severity of the injury from looking at the patient. There may be few external signs of injury, yet there could be extensive internal damage. Unless treated, these injuries can be rapidly fatal.

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Signs and symptoms of a chest injury include:

Pain at the injury site

Pain when breathing

Shortness of breath or difficulty breathing

Coughing up blood

Cool or moist skin

Blue lips, ear lobes, or nail beds

Flail chest

When two or more consecutive ribs are fractured in two or more places, or detached from the sternum, a segment of the chest wall may become disconnected from the rest of the bony thorax.

Signs and symptoms of flail chest

A patient with a flail chest may have some or all of the general signs and symptoms of chest injury. Specific signs and symptoms of this condition may also be present, including:

History of blunt trauma to the chest

Paradoxical movement or deformity, visible on the bare chest

Marked shortness of breath or respiratory distress

Pain in the fracture area

If the lungs are damaged, the patient may:

Cough up blood or frothy, bloody sputum

Collapse or show signs of shock

Show signs of tension pneumothorax

Management of flail chest

The assessment and management of patients with a flail chest should follow:

The priority action approach

general principles of management of chest injuries

An injured worker with a flail chest is in the rapid transport category.

Penetrating chest injury

A penetrating chest injury is potentially a life-threatening injury. The penetrating wound can cause damage to underlying structures including:

Lungs

Internal organs

Major blood vessels

A penetrating chest injury can cause:

Major blood vessels

An open or closed pneumothorax

Flail segment

An injured worker with a penetrating chest injury is in the rapid transport category.

Closed pneumothorax

Pneumothorax occurs when lung tissue is torn and air leaks from the lung into the pleural space.

Air is in the thoracic cavity but outside the lung.

Lung collapses.

Amount of air that can be inhaled diminishes.

Usually caused by rib fracture(s).

Signs and symptoms of a closed pneumothorax

A patient with a closed pneumothorax may have some or all of the general signs and symptoms of chest injury. Specific signs and symptoms of this condition may also be present, including:

History of chest trauma

Pain at the site of injury

Increased pain upon inspiration (pleuritic pain)

Difficulty breathing (dyspnea)

Cyanosis

Rapid, weak pulse

Subcutaneous emphysema at injury, over chest, or in neck

Management of a closed pneumothorax

The assessment and management of patients with a closed pneumothorax should follow:

The priority action approach

General principles of management of chest injuries

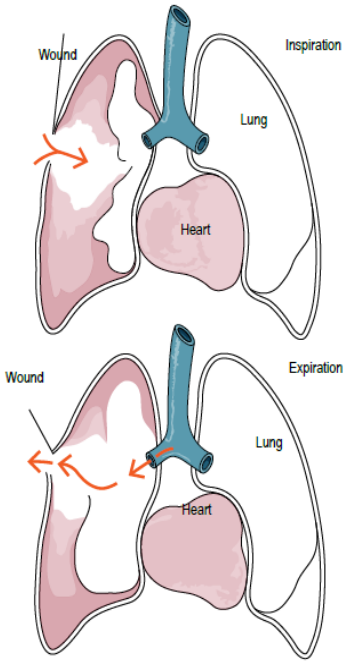
Any patient with a closed pneumothorax is in the rapid transport category.

Open pneumothorax (sucking chest)

With penetrating wounds of the chest wall, air enters the pleural space from outside the chest wall, thereby collapsing the lung.

Air passes back and forth through the wound on inspiration and expiration (see image). Because this occasionally creates a sucking sound, these wounds are sometimes referred to as open, sucking chest wounds.

Depending on the size of the opening in the chest wall, damage to underlying structures, and the pre-existing condition of the lung, the patient may have no symptoms or may be severely dyspneic. Small sucking wounds of the chest in patients with normal lungs may not cause dyspnea.



Signs and symptoms of an open pneumothorax

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A patient with an open pneumothorax may have some or all of the general signs and symptoms of chest injury. Specific signs and symptoms of this condition may also be present, including:

History of trauma to the chest

Open chest wound

Sucking sound as air passes through the opening in the chest wall

Blood or blood-stained bubbles expelled from the wound on exhalation

Coughing up blood

Possible exit wound

Management of an open pneumothorax

The assessment and management of patients with an open pneumothorax should follow:

The priority action approach

Procedures to cover open wound with gauze

General principles of management of chest injuries

Any patient with an open pneumothorax is in the rapid transport category.

Chronic obstructive pulmonary disease

Chronic obstructive pulmonary diseases (COPD) are long-standing obstructive airway diseases characterized by diffuse obstruction to airflow within the lungs and dyspnea, both due to the destruction of lung tissue.

The most common forms of COPD are:

Emphysema

Chronic bronchitis

COPD is usually caused by exposure to:

Lung toxins, such as smoking

Some chemicals

Particles in the environment

COPD may also have some superimposed asthma.

Individuals with COPD are usually older and have a long history of respiratory problems.

Management of patients with COPD who are deteriorating

Field management of COPD patients with acute respiratory distress is aimed at relieving hypoxia, then transporting rapidly to medical aid.

Instructor demonstration 6-02

Goal
Manage a conscious patient with respiratory distress.
Scenario
A worker was exposed to unknown lung irritants when they entered a shipping container used for storing landscaping supplies. They are having trouble breathing and coughing a lot.

Assess		Response
1.	Conduct a scene assessment.	There are no hazards. One person injured. Based on the mechanism of injury, spinal motion restriction is not needed.
2.	Assess level of consciousness: Approach the patient from the front, identify yourself, and attempt to communicate.	Patient's eyes are open. Based on AVPU, they are alert.
3.	Activate workplace emergency response procedure. Ask someone to call an ambulance and tell them "there is a responsive adult with respiratory distress due to inhalation of unknown irritants."	
4.	Assess airway for 5–10 seconds.	Patient is coughing and short of breath, but able to talk. Airway is clear.
5.	Position patient for ease of breathing.	Patient prefers to sit up.
6.	Assess breathing.	Patient is coughing and short of breath, but able to speak in four-to-five–word sentences between coughs.

Assess		Response
7.	Assess circulation: Signs of shock (cool, pale, clammy skin) Modified rapid body survey (massive bleeding)	No signs of shock. Patient has excessive tearing and is nauseated.
8.	Apply a blanket for warmth.	
9.	Transport decision: rapid transport	
10.	Complete a secondary survey while waiting.	
11.	Reassess ABCs every five minutes.	
12.	Reassess vital signs every 10 minutes.	
13.	Complete a first aid record and a patient assessment chart.	

Participant practice 6-02

Working in groups of two, each participant will practise the management of breathing distress.	**Participant practice**

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Module 7

Slide 89

Module 7

Objective

A competent intermediate first aid attendant will be able to:

Identify shock and manage hypovolemic shock — internal bleeding

Manage massive external bleeding that requires a tourniquet — responsive worker

Manage a conscious patient with massive bleeding

Apply pressure to help control external bleeding

Dress and bandage the injury as needed

Apply a tourniquet if needed

Manage an amputation — responsive worker

Manage and prepare an amputated part

Module outline

Module 7		
Lecture, discussion	External and internal bleeding	3
Skill practice 7-01	Internal bleeding, hypovolemic shock — responsive	9
Instructor demo 7-02	External bleeding requiring tourniquet — responsive	10
Guided practice 7-02	External bleeding requiring tourniquet— responsive	20
Lecture, discussion	Manage an amputation and amputated part	2
Instructor demo 7-03	Amputation — responsive	7
Guided practice 7-03	Amputation — responsive	14
Instructor demo 7-04	Two-person CPR with AED	5
Guided practice 7-04	Two-person CPR with AED	10

Module 7	
Mod 7 total	**80**

Discussion

External bleeding

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The signs and symptoms of external bleeding depend on which vessel is mostly involved:

Arterial bleeding: Blood spurts or pulses out and is usually bright red.

Venous bleeding: Blood comes in a steady flow and is usually darker than arterial blood.

Capillary bleeding: A continuous, steady ooze.

External bleeding can usually be controlled by applying pinpoint direct pressure on the wound. Although this may cause pain, it is necessary to control the bleeding.

If bleeding is not controlled by direct pressure, a tourniquet should be applied proximal to the wound site. The injured worker must be advised that the tourniquet will cause pain but it is necessary to save their life.

Internal bleeding

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Signs and symptoms of internal bleeding include:

Cool, pale, and clammy skin

Shortness of breath or air hunger

Faintness and dizziness

Thirst, anxiety, and restlessness

Nausea and vomiting

Skill practice 7-01

Goal
Manage a patient who is in hypovolemic shock.
Scenario
A stack of roof trusses being unloaded from a trailer struck a worker in the lower-right ribs. The worker was knocked 5.5 m (18 ft.) off the roof. When you arrive, the worker is lying supine on the ground.

Assess		Response
1.	Conduct a scene assessment.	No hazards. One worker injured. Based on mechanism of injury, spinal motion restriction is required.
2.	Assess level of consciousness: Approach the patient from the patient's line of sight, identify yourself, and attempt to communicate. Tell the patient to lie still.	Their eyes are open, they appear anxious, and they responds with clear speech. Based on AVPU, they are alert.
3.	Activate workplace emergency response procedure: Ask someone to call an ambulance and tell them "there is a responsive adult who has taken a significant fall."	
4.	Manually stabilize the head and neck.	

Assess		Response
5.	If available, train a helper to take over manual stabilization. "Hands over mine, fingers and thumbs where mine are, elbows braced. Don't move while I reposition myself. Let me know if you have to move so I can help." If there is no help available, you may have to improvise. Ask the patient to lie still and use readily available materials to maintain head support until help arrives.	
6.	Assess the airway.	Patient is talking normally. Airway is clear.
7.	Assess the breathing.	Breathing is slightly rapid and shallow, but patient can speak in full sentences.
8.	Assess circulation: Signs of shock (cool, pale, clammy skin) Expose and examine the chest Rapid body survey (bleeding)	Skin is cool, pale, and clammy. Patient is in shock. There is redness and bruising in the lower-right rib area. Possible internal bleeding of liver. No external bleeding.
9.	Transport decision: rapid transport. Update BCEHS dispatch. Tell them the patient is showing signs of shock from suspected internal injuries.	
10.	Other critical interventions: Leave patient supine and keep still. Provide a blanket for warmth.	

Assess		Response
11.	Complete a secondary survey while waiting for transport.	
12.	Reassess ABCs every five minutes.	
13.	Reassess vital signs every 10 minutes.	
14.	Complete a first aid record and patient assessment chart.	

Participant practice 7-01

Working in groups of two or three, each participant will manage a responsive worker with hypovolemic shock.	**Participant practice**
	Participants should practise until they can demonstrate proficiency, without instructor guidance.

Instructor demonstration 7-02

Goal
Manage a patient with massive external bleeding.
Scenario
A worker was struck in the left leg by a chainsaw that kicked back. When you arrive, the chainsaw has been turned off and the patient is lying supine on the ground.

Assess		Response
1.	Conduct a scene assessment.	No hazards. One person injured. Left thigh is bleeding. Pool of blood underneath the leg. Patient confirms that they did not fall or hit their head. Spinal motion restriction is not required.
2.	Assess level of consciousness: Approach the patient from the front, identify yourself, and attempt to communicate. Put on gloves and eye protection.	Patient's eyes are open, but they are extremely anxious. They respond with clear speech. Based on AVPU, they are alert.
3.	If a helper is available, give them gloves and eye protection and ask them to put them on.	
4.	Activate workplace emergency response procedure. Ask someone to call an ambulance and tell them "there is a responsive adult who has severe bleeding from a cut on the leg."	
5.	Assess the airway and breathing on approach.	Patient is speaking in full sentences. Airway is clear. Patient is breathing normally.

Assess		Response
6.	Apply direct pressure: a. Open first aid kit, find scissors, and expose the site of bleeding. b. Using absorbent dressings, apply direct pinpoint pressure on the wound site and maintain pressure. c. Apply more dressings. Ensure you're directly on top of the wound site. d. If available, ask helper to take over maintaining direct pressure.	Moderate flow of dark blood (venous). Bleeding is not controlled by direct pinpoint pressure. Bleeding is still not controlled. A tourniquet is needed.
7.	Apply a tourniquet: a. Apply a windlass-style tourniquet several inches proximal to the wound site on the thigh. b. Secure the tourniquet strap firmly around the limb. c. Explain that you would tighten the windlass until the bleeding stops. (**Note**: do not tighten the tourniquet in class as it could cause injury.) d. Anchor the windlass. e. Attach a tag to the tourniquet that indicates when it was applied.	Bleeding stops with correct application of the tourniquet.
8.	Assess circulation: Signs of shock (cool, pale, clammy skin) Rapid body survey (bleeding)	Skin is pale, cool, and dry. No other injuries.

Assess		Response
9.	Other critical interventions: a. Apply more dressings over the ones already applied, and one or more fracture straps over all of the dressings on the wound. If fracture straps are not available, use a crepe bandage. Do not cover the tourniquet. b. The patient should remain supine. c. Apply a blanket for warmth.	
10.	Transport decision: rapid transport Update BCEHS. Tell them a tourniquet was necessary to stop the bleeding.	
11.	Complete a secondary survey while waiting for transport.	
12.	Reassess ABCs every five minutes.	
13.	Reassess vital signs every 10 minutes.	
14.	Complete a first aid record and patient assessment chart.	

Participant practice 7-02

Working in groups of two or three, each participant will manage a responsive worker with a massive bleed requiring a tourniquet.	**Participant practice**
	Participants should practise until they can demonstrate proficiency without instructor guidance.

Discussion

Amputation

The first aid attendant should be primarily concerned with the ABCs of patient care. The first aid attendant should also take steps to keep the severed part viable in case it can be reattached. A well-preserved part may be attached up to 24 hours after injury. The following steps apply to amputations and detached pieces of skin and tissue.

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1. Find the detached part.
2. Clean off contaminants.
3. Package the part in moist dressings.
4. Place the part in a plastic bag.
5. Place that bag in a bag of ice.
6. Transport the part with the patient.

Instructor Demonstration 7-03

Goal
Manage a patient with an amputation.
Scenario
A worker was cutting lumber on a radial saw when they caught their hand in the blade. The hand was fully amputated above the wrist. When you arrive, the worker is on their knees clutching the stump.

Assess		Response
1.	Conduct a scene assessment.	No hazards. One person injured. A significant amount of blood has soaked into the patient's sleeve and is pooling on the ground. Based on mechanism of injury, spinal motion restriction is not required.
2.	Assess level of consciousness: Approach the patient from the front, identify yourself, and attempt to communicate.	Patient's eyes are open. They are extremely anxious but responds with clear speech. They confirm that they did not fall. Based on AVPU, they are alert.
3.	Activate workplace emergency response procedure: Ask someone to call an ambulance and tell them "there is a responsive adult who has amputated their hand." Put on gloves and eye protection.	
4.	If a helper is available, give them gloves and ask them to put them on.	
5.	Assess the airway and breathing on approach.	Patient is able to call out for help; airway is clear. Patient is breathing normally.

Assess		Response
6.	Control bleeding: a. Apply direct pressure over the wound and position patient supine. b. Cut away sleeve to expose the whole limb. c. Keep the patient's upper arm in contact with the ground. Do not fully elevate the arm. d. Apply additional dressings if needed. e. Apply more direct pressure if needed. f. If available, ask a helper to take over applying direct pressure.	Bright red blood is spurting out of the wound. This is arterial bleeding. The bandage soaks through rapidly and the patient continues to bleed. Apply additional dressings over the initial dressing and apply more pressure. The bleeding rapidly soaks through all dressings. A tourniquet is needed.
7.	Apply a tourniquet: a. Apply a commercially prepared tourniquet several inches proximal to the stump. b. Secure the tourniquet strap firmly around the limb. c. Explain that you will tighten the windlass until the bleeding stops. (**Note:** do not tighten the tourniquet in class as it could cause injury.) d. Anchor the windlass. e. Attach a tag to the tourniquet that indicates when it was applied.	Bleeding stops with correct application of the tourniquet.
8.	Assess circulation: Signs of shock (cool, pale, clammy skin) Rapid body survey	Skin is pale, cold, and dry. No other injuries are found.
9.	Bandage the bleed using a crepe roller bandage. Cover the dressings completely with the crepe roller bandage. Do not cover the tourniquet with the crepe bandages.	

Assess		Response
10.	Other critical interventions: a. The patient should remain supine. b. Apply a blanket for warmth.	
11.	Prepare the amputated part for transport: a. As carefully as possible, clean off any gross foreign matter. b. Dress the part in sterile, moist gauze. c. Place the dressed part in a waterproof bag with seal. d. Place the bag inside another filled with ice. e. Label the bag with the date and time of the amputation. f. Transport the part with the patient.	
12.	Transport decision: rapid transport	
13.	Complete a secondary survey while waiting for transport.	
14.	Reassess ABCs every five minutes.	
15.	Reassess vital signs every 10 minutes.	
16.	Complete a first aid record and patient assessment chart.	

Participant practice 7-03

Working in groups of two or three:	**Participant practice**
• Each participant will manage a responsive worker with an amputation requiring a tourniquet. • Each participant with manage an amputated part.	

	Participants should practise until they can demonstrate proficiency, without instructor guidance.

Instructor demonstration 7-04

Safety alert
Students are required to perform CPR compressions during this course. Performing CPR compressions on a classmate for real could result in discomfort or injury. Students must only perform chest compressions if practising on a mannequin.

Demonstration materials required

Gloves

Pocket mask with one-way valve

Mannequin

AED

Safety eyewear

Two-person CPR

The attendant is called to the restroom for an unresponsive worker.

Assess		Response
1.	Scene assessment The first aid attendant is alerted about a medical situation in one of the restrooms	No danger One worker Co-workers in the area report one worker suddenly felt ill and was helped to the floor No trauma
2.	Assess responsiveness — AVPU	Worker does not respond to your voice or pain.

Assess		Response
3.	Approach the worker from the front, identify yourself, and attempt to talk with the worker. Pinch the finger on the workers hand closest to you.	The worker does not respond to pain.
4.	Transport decision	Because this worker is not responsive, this worker requires urgent medical attention.
5.	Activate the worksite emergency response procedures: Instruct the co-worker to activate the workplace emergency response procedures. When calling the ambulance to say "there is an unresponsive adult worker" and report back.	
6.	First aid attendant performs primary survey: From the side of the worker, open the airway using a head-tilt chin-lift. Assess breathing for 5–10 seconds.	There is no breathing.
7.	Request any other first aid attendants or workers trained in CPR to assist. Designate a co-worker to update the ambulance that you are starting CPR/AED.	
8.	First aid attendant administers two minutes of CPR chest compressions. Second first aid attendant prepares to ventilate worker after 30 compressions: Repeat 30 compressions to two breaths for a total of five cycles.	

Assess		Response
9.	Repeat cycles of two minutes of CPR until one of the following: A physician assumes responsibility The worker is transferred to ambulance personnel The attendant is physically exhausted and unable to continue Spontaneous breathing and circulation are restored	Switch roles of compressor and ventilator every two minutes.

Participant practice 7-04

Working in groups of two with a mannequin, each participant will manage an unresponsive worker in respiratory and/or cardiac arrest.	**Participant Practice**
If time permits for a third and fourth rotation, have the AED arrive during the second set of 30 compressions.	Participants should practise until they can demonstrate proficiency, without instructor guidance for CPR, and with minimal guidance for the use of an AED.

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Module 8

Module 8

Slide 94

Objective

A competent intermediate first aid attendant will be able to:

Identify causes of environmental injuries

Recognize and manage cold-related injuries

Recognize and manage heat-related injuries

Module outline

Module 8		
Lecture, discussion	Environmental injuries	3
Lecture, discussion	Cold-related injuries	10
Lecture, discussion	Heat-related injuries	7
Mod 8 total		**20**

Environmental injuries

Environmental injuries can occur when workers are exposed to the environment without the ability to protect themselves from it. Some examples of environmental injuries include frostbite, hypothermia, heat exhaustion, heat stroke, sunburn, snow blindness, trench foot, drowning, decompression illness, and altitude sickness.

These injuries may be caused by exposure to:

Cold

Heat

Sun (UV rays)

Wind

Rain or water

Atmosphere

Altitude

Decompression

Cold-related injuries

Cold injury and immersion foot

The major categories of cold injury are:

Cold injury and immersion foot (trench foot)

Frostnip and frostbite

Hypothermia

Cold injury and immersion foot are usually mild injuries with no long-term damage to the soft tissue. Cold injury occurs as the result of prolonged exposure to cold, not necessarily freezing temperatures.

Immersion foot occurs from prolonged exposure to cold water and is particularly common among hikers and hunters. The skin of the affected part is pale and cold to the touch but does not feel frozen. Sensation is usually preserved to some extent. These signs and symptoms distinguish milder injuries from frostbite.

The emergency treatment of mild cold injuries focuses on:

Removing the patient from the cold, wet environment

Rewarming the affected part

Removal of wet or constrictive clothing

Contact with a warm object, such as the attendant's hands or the patient's own axilla, is all that is usually required.

Tingling, mild pain, and redness of the affected part usually occur during rewarming. The affected part usually heals completely on its own without further treatment. The patient should be referred for medical assessment if the symptoms persist.

Frostbite

Slide 95

Frostbite is an injury in which tissues are damaged by exposure to freezing temperatures. With frostbite, ice crystals form within the tissues. In addition, as the hands or feet (the most common sites) are cooled, the blood vessels of the skin constrict and blood flow is reduced significantly. Ultimately, the affected tissue, including its blood vessels and nerve fibres, is damaged.

The signs and symptoms of frostbite include:

Pain and redness in the affected area

Pale skin, tingling, and numbness as the frostbite worsens

White, or blue and white skin

Skin feels frozen solid to the touch

To treat frostbite:

Lightly dress the area with sterile dressing

Wrap it in roller gauze

Do not rub frostbitten tissue

Workers with frostbite do not require rapid transport, but will need medical attention.

Hypothermia

Slide 96

Hypothermia is defined as a core body temperature of less than 35°C (95°F). Normal body temperature is 37°C (98.6°F). Under normal circumstances, the body maintains a stable internal core temperature by balancing heat loss and production.

The body prevents heat loss by constricting the blood vessels to the skin, which reduces the skin's blood flow. The body increases its internal heat production by shivering. The energy generated by shivering is used to maintain the body's core temperature. However, in moderate and severe hypothermia, with the onset of changes in the level of consciousness, shivering is inhibited, so heat loss continues unabated.

The signs and symptoms of hypothermia include:

Mild: shivering, body temperature 33–35°C

Moderate: confusion, decreased level of consciousness, slowed breathing, body temperature 29–32°C

Severe: slowed respiratory rate, unresponsive, frothy sputum, body temperature below 28°C, cardiac arrest, coma

Patients with moderate to severe hypothermia require rapid transport.

Heat-related injuries

Heat exhaustion

Slide 97

Heat exhaustion is caused by depletion of both water and salt due to sweating during prolonged periods of exertion, when fluid replacement has not been sufficient to match the losses.

The signs and symptoms of heat exhaustion include:

Shallow respiration

Increased respiratory rate

Cool, pale, and clammy skin

Sweating

Weakness, fatigue, or dizziness

Headache and nausea

Fainting

Muscle cramps

The presence of sweating is an important finding because it is often the only way to differentiate heat exhaustion from the life-threatening emergency of heat stroke.

To treat a patient with heat exhaustion:

Move the patient to a cooler environment.

Lay the worker down.

Loosen or remove excess or tight-fitting clothing.

Sponge or soak the patient with cool water and use a fan. Stop cooling if the worker begins to shiver.

Give the conscious patient fluids to drink. Juice, non-caffeinated soft drinks, or a sports drink is best. If that’s not available, mix one teaspoon of salt in one pint of water.

Heat stroke

Slide 98

Heat stroke is a condition that results from prolonged exposure to heat, causing a disturbance of the temperature-regulating mechanism of the body. It is also referred to as sunstroke.

The signs and symptoms of heat stroke include:

Hot, dry, flushed skin

Absence of sweating

Agitation and confusion

Decreased level of consciousness

Headache

Nausea and vomiting

Seizures

Increased respiratory rate

Shock

Cardiac arrest

All patients with heat stroke require rapid transport.

To treat a patient with heat stroke:

Move the patient to the coolest spot available.

Have a biohazard bucket ready in case the patient vomits.

Remove all outer clothing.

Sponge or soak the patient with cool water and use a fan.

Give the conscious patient fluids to drink. Juice, non-caffeinated soft drinks, or a sports drink is best. If that’s not available, mix one teaspoon of salt in one pint of water.

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Module 9

Module 9

Slide 100

Objective

A competent intermediate first aid attendant will be able to:

Identify and manage minor ear injuries

Identify and manage minor nose injuries

Identify and manage minor eye injuries

Manage major eye injuries

Module outline

Module 9		
Discussion	Minor ear injuries	2
Discussion	Nose injuries	2
Discussion	Minor nose injuries	2
Discussion	Minor eye injuries, types of eye injuries, treatment	2
Instructor demo 9-01	Major eye injuries	8
Guided practice 9-01	Major eye injury	18
Mod 9 total		**34**

Discussion

Minor ear injuries

Slide 101

The most common minor ear injury is an infection of the middle ear. The main symptoms are:

Ear pain

Hearing impairment at the time of an upper respiratory infection.

A patient with an ear injury may appear very ill. The main symptoms are:

Ear pain

Dizziness

Nausea and vomiting

Inner ear trouble may be a sign of a more serious condition, such as meningitis. Refer the patient to a physician.

Nose injuries

The signs and symptoms of nose injuries are obvious. They include pain and bleeding.

By itself, a nosebleed or a nasal fracture is not a medical emergency. Yet if it's the result of blunt trauma, there may be a brain or spinal injury. Also, due to bleeding, there is the possibility of airway obstruction. To tell if the patient has an airway obstruction due to fluids, look for blood or other fluids around the nose or mouth. You may also hear gurgling.

Even a simple nosebleed may require medical aid if:

The nosebleed lasts longer than 30 minutes

The patient has a history of frequent recurrent nosebleeds

The patient is on blood thinning medication that may complicate first aid treatment

Minor nose injuries

To treat a minor nose bleed:

Ask the patient to lean forward and pinch the nose for 15–20 minutes.

Ice the bridge of the nose for up to 20 minutes.

Stop for five minutes.

Repeat the above steps until the bleeding stops.

Discussion

Minor eye injuries

The most common minor eye injury is a foreign body in the eye. Most foreign bodies in the eye are superficial and can be removed without any complications.

Types of eye injuries

Eye injuries are common in the workplace. They can result from a variety of workplace activities, including:

Direct blows from sharp or blunt objects (lacerations, contusions, extruded eyeball)

Working with or near chemicals, laser and UV light

Burns (chemical, thermal, radiation)

Flying particles from bursts of compressed air or other compressed gases

Windblown debris

To treat a patient with a foreign body in their eye:

1. Tell the patient to:
    a. Remove the contact lens in the affected eye, if applicable.
    b. Remove any cosmetics from around the eye or eyelashes, if applicable.
    c. Wash their hands.
    d. Rinse their eye using an eye cup filled with sterile saline or potable, tepid, room-temperature water.
    e. Pull the upper eye lashes down over the lower lashes and then blink.

Examine the eye more closely while separating the eyelids.

2. If needed, remove the dust with a moistened swab or gauze pad.

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Instructor demonstration 9-01

Goal
Manage a patient with a major eye injury.
Scenario
During a tree trimming procedure, a worker slipped from a ladder, fell face-first into a tree, and then dropped 2 m (6.5 ft.) to the ground. When you arrive, the worker is lying supine on the ground. There is a small twig protruding from their eye.

Steps		
1.	Conduct a scene assessment.	No hazards. One injured. Based on the mechanism of injury, spinal motion restriction is required.

Steps		
2.	Manually stabilize the patient's head and neck.	
3.	If available, train a helper to take over manual stabilization: "Hands over mine, fingers, and thumbs where mine are, elbows braced. Don't move while I reposition myself. Let me know if you have to move so I can help." If there is no help available, you may have to improvise. Ask the patient to lie still and use readily available materials to maintain head support until help arrives.	
4.	Assess level of consciousness: Identify yourself and attempt to communicate. Ask patient to keep their head still, close both eyes if possible, and keep their hands away from injured eye.	Patient responds with clear speech, but is very anxious. They complain about pain in their eye.
5.	Activate workplace emergency response procedure. Call 911.	
6.	Assess airway.	Patient talks clearly. Airway is clear.
7.	Assess breathing.	Patient is breathing.
8.	Assess circulation: Signs of shock (cool, pale, clammy skin) Rapid body survey (bleeding)	Skin is cool, pale, and dry. No major bleeding or other gross deformity.
9.	Cover the patient with a blanket for shock.	

Steps		
10.	Provide injury care: a. Tell the patient what you're doing. b. Ask a helper to put on gloves. If it's a large object, ask the helper to support the twig to ensure no movement occurs. c. The method of supporting the object will depend on several factors, such as object size, shape, and available supplies. d. If a helper is not available, you may have to use bulky dressing or supportive bandages to maintain the position of the twig. e. Cover both eyes with sterile dressings.	
11.	Transport decision: rapid transport	
12.	Complete a secondary survey while waiting for transport.	
13.	Reassess ABCs every five minutes.	No changes
14.	Reassess vitals every 10 minutes.	No changes
15.	Complete a first aid record and patient assessment chart.	

Participant practice 9-01

Working in groups of two, each participant will practise the management of a major eye injury for an unresponsive worker.	**Participant practice**

Slide 103

Module 10

Slide 104

Objective

A competent intermediate first aid attendant will be able to:

Identify the types of burns

Manage minor burns

Manage major burn

Module outline

Module 10		
Lecture, discussion	Burns (types, rule of nines, mechanism of injury, rapid transport)	10
Lecture, discussion	Minor burn treatment	5
Instructor demo 10-01	Manage major burn	5
Practice 10-01	Manage major burn	15
Mod 10 total		**35**

Discussion — burns

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Superficial burns (first degree)

First-degree burns affect only the outer layer of skin. Symptoms:

Skin is red.

Worker experiences mild pain.

This type of burn can result from a mild sunburn or a minor scald. It usually heals in about a week.

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Partial-thickness burns (second degree)

Second-degree burns can be partial- or full-thickness, affecting the first and second layer of the skin.

Signs and symptoms include:

Blisters

Reddening of the skin

Pain

Fluid loss

A patient with a significant second-degree burn to less than 10% of the body surface should be referred for medical aid. If the burn is worse than that, the patient requires rapid transport.

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Full-thickness burns (third degree)

Third-degree burns involve damage to the layers of skin and underlying structures. Muscles, bones, and deeper structures may be damaged.

Signs and symptoms include:

Charred, dry, or pale skin

Fluid loss

A patient with a third-degree burn to less than 2% of the body surface should be referred for medical aid. If the burn is worse than that, the patient requires rapid transport.

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Rule of nines

A first-degree burn may not have blisters when you first encounter the patient. In order to determine the extent of the burns, you need to consider more than the signs and symptoms. The fastest and easiest way to estimate the extent of burns is to estimate the percentage of the body that has been burned. This is done using the rule of nines, where:

Each upper extremity counts for 9%.

The head and neck together count for 9%.

Each lower extremity counts for 18%.

The anterior and posterior surfaces of the trunk each count for 18%.

The perineum and genitalia together count for 1%.

An area the size of the worker's hand can be assumed to be 1%.

Mechanism of injury

Another important consideration is the mechanism of injury:

A worker involved with a sudden flash or scalding liquid is likely to have first-degree burns, second-degree burns, or both.

If the worker's clothing caught fire, there may be third-degree burns.

If the worker was burned in an enclosed space, there may be respiratory burns or smoke inhalation.

If there was an explosion, there may be other associated injuries.

The attendant should try to cool burns as soon as possible during the primary survey.

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Rapid transport

A patient with the following burns requires rapid transport:

Any burn with associated smoke inhalation injury

Second-degree burns to more than 10% of the body surface

Third-degree burns to more than 2% of the body surface

Significant burns involving the face

Burns encircling a limb

Major burns to the hands, feet, or genitalia

All electrical burns

All chemical burns

Treating a minor burn

To treat a minor burn:

1. Cool the burn as soon as possible.
2. Remove any jewelry if possible.
3. Cover the area with moist sterile gauze.
4. Cover the gauze with drainage dressing.
5. Lightly secure the dressings with a roller bandage.

Tell the patient how to care for the injury:

Keep the bandage clean and dry.

Report back immediately to first aid if the bandage gets wet or dirty, or starts to come off.

Come back the next day for reassessment.

Give the patient a handout on care for minor burns.

Minor burns typically heal within a week.

Guided practice 10-01

Goal
Manage a patient with a major burn to both hands.
Scenario
A painter was working at height applying labels to the plant flow piping near the top of a 13’ foot or four-metre step ladder when they lost their footing. As they reached out to prevent a fall, they grabbed an active steam pipe with both hands. When you arrive, the worker is at the industrial sink cooling their burned hands.

Steps		
1.	Conduct a scene assessment. Confirm mechanism.	There are no hazards. One person injured. Based on the mechanism of injury, spinal motion restriction is not needed. They did not fall.
2.	Assess level of consciousness: Identify yourself and attempt to communicate.	Patient’s eyes are open. They are anxious. Based on AVPU, they are alert.
3.	Initiate or continue flushing their hands with cool water.	The worker is at the industrial sink cooling their burned hands.
4.	Activate workplace emergency response procedure: Ask someone to call an ambulance and tell them “there is a responsive adult with a serious burn on their hands.”	Major burns to the hands, feet, or genitalia require rapid transport.

Steps		
5.	Assess airway.	Able to talk. Airway is clear.
6.	Assess breathing.	Breathing normally.
7.	Assess circulation: Signs of shock (cool, pale, clammy skin) Rapid body survey (bleeding)	No signs of shock. Major second-degree, full-thickness burns to the palms and fingers of both hands. No other injuries.
8.	Continue cooling and remove any rings, watches, or jewellery.	
9.	Transport decision: rapid transport	
10.	Complete secondary survey while waiting for transport.	
11.	Treat wound if still waiting for ambulance: a. Cover the area with moist, sterile gauze. b. Lightly secure the dressing with a roller bandage. c. Keep hands elevated if possible.	
12.	Reassess ABCs every five minutes.	
13.	Reassess vital signs every 10 minutes.	
14.	Complete a first aid record and patient assessment chart.	

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Module 11

Module 11

Slide 111

Objective

A competent intermediate first aid attendant will be able to:

Identify musculoskeletal system

Perform an ankle spica wrap

Identify and manage minor fractures and dislocations

Identify and manage major fractures and dislocations

Identify role in ongoing management

Identify routes of poisoning

Module outline

Module 11		
Lecture, discussion	The musculoskeletal system	10
Instructor demo 11-01	Ankle sprain — spica wrap	5
Guided practice 11-01	Ankle spica	10
Lecture, discussion	Minor fractures, dislocations, immobilization	5
Instructor demo 11-02	Manage a minor fracture or dislocation	10
Guided practice 11-02	Manage a minor fracture or dislocation	20
Instructor demo 11-03	Manage a major fracture or dislocation	10
Guided practice 11-03	Manage a major fracture or dislocation	20
Lecture, discussion	Ongoing management	2
Lecture, discussion	Poison	3

Module 11		
Mod 11 totals		**95**

Discussion

The musculoskeletal system

Slide 112

The skeleton is the bony framework of the body. The skeleton:

Gives the body shape, strength, and rigidity

Protects the organs

Acts as a movable framework so that muscular contractions can move the body

Bones are connected by joints.

Slide 113

Ball and socket joints, such as the hip and shoulder, are the most mobile.

Hinge joints, such as the knee and elbow, permit free movement in a single plane.

Muscles and their tendons pass around and across joints.

Slide 114

A tendon is a band of strong, white, fibrous tissue that connects a muscle to a bone.

When a muscle contracts, it pulls on the tendon, which moves the bone.

When everything is working as it was intended, the body will become mobile.

Tendons are so tough they are seldom torn.

Ligaments are fibrous tissue bands that connect one bone to another bone at a joint.

Slide 115

Most skeletal muscles exist in groups or pairs that have equal but opposite functions. Voluntary contraction of one group of muscles is accompanied by an automatic relaxation of the opposing group.

Treatment

Slide 116

Minor sprains

To treat a minor sprain:

1. Conduct modified primary survey
2. Conduct modified secondary survey
3. Ice the injured area.
4. Keep the injured area as still as possible.
5. Apply a spica bandage using a crepe roller bandage.
6. Check the patient's circulation.

Instructor demo 11-01 — skill only

Goal	
Review the assessment of an ankle sprain and apply a spica ankle wrap.	
Demonstrate and guide learners through the skill	
1.	Talk through and demonstrate the assessment of a worker with a sprained ankle, then demonstrate how to apply an ankle spica wrap.
2.	Anchor the bandage at the metatarsal arch with two wraps.
3.	Wrap the bandage across the top of the foot, around the heel, and back to the start. A crisscross pattern forms at the top of the foot as you follow a figure eight pattern (around the foot, around the leg).
4.	Continue wrapping in the same pattern, overlapping the bandage by about half its width, moving up the foot and toward the calf.
5.	Assess and compare circulation after Spica wrap is applied.

Guided practice 11-01

Working in groups of two, each participant will practise the spica wrap.	**Participant practice**

Discussion

Minor fractures

To treat a minor fracture:

1. Ice the injured area.

Keep the injured area as still as possible.

Minor dislocations

To treat a minor upper limb dislocation:

Apply ice to the injured area.

Apply a large arm sling.

Place a pad under the patient's elbow to fill the gaps between the body and the position of arm.

Apply a wide transverse bandage around the elbow and torso. Tie it on the uninjured side. Check the patient's circulation.

Immobilizing injuries

With upper-limb injuries, use a splint or sling to follow the principles of immobilization:

Steady and support the injured limb at all times.

Check circulation and compare to the uninjured limb before and after immobilization.

Remove jewellery below the site of the injury.

Pad splints and slings wherever they rest against a limb.

Ensure the splint is long enough to extend above and below the injury.

With lower-limb injuries, hold the limb steady with your hands.

Arm slings

When applying an arm sling:

Place padding between the elbow and torso.

Place padding under the knots.

Minor fractures

Instructor demonstration 11-02

Goal
Assess and treat a minor fracture.
Scenario
A worker supporting their right forearm walks into the first aid room. The worker was struck on the forearm by a drive shaft while working on a vehicle. They say they did not fall or hit their head.

	Assess	Response
1.	Conduct a scene assessment.	No hazards. One injured. Spinal motion restriction not required.
2.	Modified primary survey: Ask what happened to assess the airway. Assess breathing. Assess circulation. Look for signs of shock (cool, pale, clammy skin). Do a verbal rapid body survey. Did you hurt yourself anywhere else?	Patient is talking clearly. Airway is clear. Breathing is normal. Skin colour is normal. When asked, patient says, "Only my arm hurts."
3.	Position the patient based on the findings of the modified primary survey. If the patient is reacting to the injury (pale, anxious), position supine. If patient's colour is normal (not showing anxiety), position sitting.	Position sitting.
4.	Support the injury.	

Assess		Response
5.	Wash your hands and put on gloves.	
6.	Look at injury to make initial transport decision: Refer to medical aid — possible fractured forearm.	There is swelling, redness, bruising, pain, and angulation at the mid-third section of their forearm.
7.	Modified secondary survey: Question patient about medical history. Thoroughly examine injured area and compare to uninjured arm.	Vitals are all normal. Patient has no allergies and is not on any medications. Point tenderness when injured area touched. Swelling. Patient can feel and move areas distal to wound, but reluctant due to increase in pain. The circulation distal to the injury is equal to the uninjured arm.
8.	Injury care: Apply ice pack for 20 minutes with a protective barrier against the skin. Immobilize the limb with a padded splint secured by crepe roller bandages. Keep the joints above and below the injured area from moving. Recheck circulation. Reapply ice. Apply a sling and transverse bandage.	No swelling or increased pain after ice. No obvious impaired circulation after immobilization.
9.	Transport patient to medical aid.	
10.	Complete a first aid record.	

Guided practice 11-02

Working in groups of two each participant will practise the management of a minor fracture for a worker.	**Participant practice**

Discussion

Major sprains, dislocations, and fractures

Slide 117

Signs and symptoms

Slide 118

The signs and symptoms of a major sprain, dislocation, or fracture are:

Severe pain

Obvious gross deformity and irregularity

A complete or near-complete inability to move the injured limb

A complete or near-complete inability to put weight on the injured limb

Swelling and point tenderness

A grating sound or feeling (fracture only)

Immobilizing injuries

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Immobilizing injuries:

With upper limb injuries, use a splint or sling

Steady and support

Check circulation and compare

Remove jewellery

Pad splints and/or slings

Above and below injury

With lower-limb injuries, the first aid attendant or a helper holds the limb steady.

Rapid transport

Slide 120

A patient with any of the following major sprains, dislocations, or fractures requires rapid transport:

Severe crush injury

Two or more proximal long-bone fractures

Pelvic fracture

Hip or knee dislocation

Medical aid — major sprain, dislocation, or fracture

Refer worker with a sprain, dislocation, or fracture who has difficulty walking to medical aid.

Instructor demonstration 11-02

Goal
Manage a patient with a major sprain, dislocation, or fracture.
Scenario
A worker was struck on the right leg by a moving forklift. When you arrive, the worker is in the lateral position with their right side down. They are holding onto their right thigh.

Assess		Response
1.	Conduct a scene assessment.	No hazards. One injured. Based on the mechanism of injury, spinal motion restriction is required.
2.	Manually stabilize head and neck and maintain in the position found.	
3.	Assess level of consciousness: Approach the patient from the front, identify yourself, and attempt to communicate.	Based on AVPU, they are alert. The worker is yelling about extreme pain in their right thigh.

Assess		Response
4.	Activate the workplace emergency response procedure.	
5.	Assess the airway.	Patient is talking clearly. Airway is clear.
6.	Assess breathing.	Patient is breathing normally.
7.	If available, train a helper to take over manual stabilization: "Hands over mine, fingers and thumbs where mine are, elbows braced. Don't move while I reposition myself. Let me know if you have to move so I can help." If there is no help available, you may have to improvise. Ask the patient to lie still and use readily available materials to maintain head support until help arrives.	
8.	Assess circulation: Signs of shock (cool, pale, clammy skin) Rapid body survey (bleeding)	Skin is normal, warm, and dry. Small amount of blood has soaked through pant leg. Baseball sized deformity is felt in right mid-thigh region. No pain anywhere else.

Assess		Response
9.	Immobilize the injury: Support the injured leg in the position found using your hands. If available, ask a helper to take over support of the leg. Expose the injury, cover the open wound with a dressing, and apply pressure to control any bleeding. If the injury site is not accessible due to the patient's position, roll them to the supine position with support.	The injury site is accessible in the position found.
10.	Transport decision: medical aid Call 911 and ask for an ambulance.	Patient is conscious and has a suspected femur fracture.
11.	Conduct a secondary survey: Assess vitals. Record the patient's medical history. Thoroughly examine injured area. Complete head-to-toe check: injuries, circulation, motor function, and sensory function.	Patient is alert; vitals are within normal range. Patient has no relevant medical history. Compound mid–one third femur fracture with minimal bleeding, slight deformity mid-thigh. Circulation, motor function, and sensory function is equal on all extremities.
12.	Provide injury care: Cover dressings with a bandage if not already done. Apply ice pack for 20 minutes on and five minutes off with a protective barrier. Recheck circulation. Continue to manually immobilize the injured leg.	Circulation is normal. No change.
13.	Reassess ABCs every five minutes.	No changes

Assess		Response
14.	Reassess vitals every 10 minutes.	No changes
15.	Complete first aid record and patient assessment chart.	

Guided practice 11-03

Working in groups of two, each participant will practise the management of a major fracture for a worker.	**Participant practice** Use helper hands or sandbags.

Discussion

Ongoing management

Slide 121

Return-to-work program

In cases involving more serious injuries and illnesses, the worker may need to take time off for treatment and therapy. This is managed through a return-to-work program. This program provides a systematic, progressive, individualized, and time-limited process for helping injured workers get back into their normal routine at home and at the workplace as quickly and safely as possible.

The first aid program and return-to-work program focus on:

Compliance with regulation

First aid best practice that meets or surpasses set guidelines

Early intervention to prevent further damage

Stay-at-work options that allow workers to remain at work on modified duties while they heal

Discussion

Poisoning

Slide 122

Inhaled poisons

Inhaled poisons can cause damage in three main ways:

Reduction of the oxygen-carrying capacity of the blood, such as with carbon monoxide poisoning

Direct irritation of the lung tissues, such as with chlorine gas poisoning

A direct toxic effect on cells, such as with hydrogen sulfide poisoning

Management of inhaled poisons

Get the worker to a safe environment. Oxygen therapy should be given as soon as possible to anyone who may have inhaled a toxic substance. If you're trained, oxygen should be administered through an oxygen mask with reservoir at 10 Lpm. Keep the patient warm and at complete rest to keep the body's demand for oxygen at a minimum.

Any increase in oxygen demand may cause further hypoxia and compound the toxic effects of the gas throughout the body. A patient who is in the Rapid Transport Category must be transported immediately to medical aid. Constantly monitor vital signs en route to hospital.

Ingested poisons

Ingested poisons affect the body by:

Destroying the tissues of the digestive tract

Being absorbed into the body

Causing adverse health affects

Accidental poisoning by ingestion is usually caused by drugs, chemicals, or bacterial toxins.

Management of ingested poison

Management of worker who has ingested a poison must follow the priority action approach. Complete the primary survey, assess vital signs, history, and head to toe.

• Identify the ingested poison.

• Keep a sample of the poison and the container or label if possible. Send it with the patient to the hospital if medical assessment is required.

Treatment of a conscious and breathing patient

Corrosive ingestion — acids and alkalis:

• do not make the patient vomit

• do not neutralize the corrosive

• dilute immediately by giving the patient 1 to 2 glasses of milk or water

Non-corrosive or hydrocarbon ingestion — i.e., petroleum products. If the poison is not a

corrosive substance, Poison Control may instruct you to:

• Provide activated charcoal if the patient has stopped vomiting — the dose would be 50 gm (2 oz.) diluted in 250 ml (8 oz.) of water or juice.

• The Poison Control Centre may instruct you to use activated charcoal immediately. Do not administer activated charcoal to a patient who cannot swallow due to a decreased level of consciousness.

Skin-contact poisons

Some substances cause:

Skin destruction or irritation on contact, as in a chemical burn

Adverse health effects, as when substances like pesticides come into contact with the skin, eyes, or mucous membranes

Management of skin contact poisons

Once the ABCs have been assessed and managed, proceed as follows:

1. if the chemical is dry, brush it off before flushing the skin
2. wash off the skin immediately with large amounts of water
3. remove contaminated clothing
4. take precautions to avoid contamination to yourself and further contamination of the patient
5. treat all burned areas as for a dry burn
6. transport the patient to medical aid

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Module 12

Module 12

Slide 124

Objective

A competent intermediate first aid attendant will be able to:

Manage diabetic emergencies

Identify types of seizures

Manage seizures

Identify types of stroke

Manage a stroke

Identify critical incident stress and self-care

Module outline

Module 12		
Lecture, discussion	Manage a diabetic emergency	2
Guided practice 12-01	Manage a diabetic emergency	13
Lecture, discussion	Manage a seizure	2
Guided practice 12-02	Manage a seizure	13
Lecture, discussion	Manage a stroke	2
Guided practice 12-03	Manage a stroke	8
Lecture, discussion	Critical incident stress	10
Mod 12 total		**50**

Discussion

Medical emergencies

Medical emergencies can occur in a workplace, and the attendant must be able to manage these

emergencies. This module will allow a review and practice of the management of stroke, seizure, and diabetic emergencies.

Diabetic emergencies

Signs and symptoms

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Hypoglycemia	Hyperglycemia
Hunger	Thirst
Pale and clammy skin	Excessive urination
Dizziness, trembling, and weakness	Loss of appetite
Confusion, restlessness, irrational behaviour	Weakness and dizziness
As the condition progresses, these signs may also appear:	As the condition progresses, these signs may also appear:
Slurred speech	Nausea and vomiting
Seizures	Deep, rapid breathing
	Dry mouth
	A fruity sweet odour to the breath
	Weak, rapid pulse
	Warm, dry skin
Medic alert bracelet, necklace, tattoo, or card indicating Diabetes	Medic alert bracelet, necklace, tattoo, or card indicating Diabetes

Managing a diabetic emergency

To treat a conscious patient who is having a diabetic emergency:

1. Give them as much sweetened fruit juice, a non-diet soda as they can take, or a full candy bar or a similar sugary snack.

To treat a patient with an altered or decreased level of consciousness who is having a diabetic emergency:

1. Place them in the ¾-prone position. Ensure the airway drains effectively.
2. If the patient is hypoglycemic, place sugar or glucose in the pocket of the cheek that's closest to the ground.
3. Monitor the airway closely.

Guided practice 12-01 — demo

Goal
Manage a patient who is having a diabetic emergency.
Scenario
A site manager who is known to be type I diabetic suddenly feels faint and starts to collapse. A co-worker standing nearby catches the manager and gently lowers them to a supine position on the floor. When you arrive, the site manager's eyes are closed and their skin is pale.

Steps		Response
1.	Conduct a scene assessment.	There are no hazards. One patient. Spinal motion restriction is not required.
2.	Assess level of consciousness: Approach the patient from the front, identify yourself, and attempt to communicate.	Patient is unresponsive.
3.	Activate workplace emergency response procedure: Ask someone to call an ambulance and tell them "there's an unresponsive adult who is known to have diabetes."	
4.	Perform a head-tilt chin-lift.	
5.	Assess airway.	Airway is clear.
6.	Assess breathing.	Patient is breathing normally.

Steps		Response
7.	If available, get a helper to take over head- tilt chin-lift. If there is no help available, you may have to improvise using readily available materials to maintain the head-tilt chin-lift. Or, you may immediately position the patient ¾-prone and continue your assessments in that position until help arrives.	
8.	Assess circulation: Signs of shock (cool, pale, clammy skin) Rapid body survey (bleeding)	Skin is pale, cool, and clammy. Medical alert device on wrist is discovered: type 1 diabetic.
9.	Place patient in ¾-prone position.	
10.	Offer the patient a blanket if they are cold.	
11.	Place sugar or glucose in the pocket of the patient's cheek that is closest to the ground.	
12.	Monitor airway closely.	
13.	Transport decision: rapid transport	
14.	Complete a secondary survey while waiting for transport. Update BCEHS if any changes are noted.	
15.	Reassess ABCs every five minutes.	
16.	Reassess vital signs every 10 minutes.	
17.	Complete a first aid record and patient assessment chart.	

Discussion

What is a seizure?

A seizure is a sudden surge of electrical activity in the brain. For patients who have epilepsy, seizures are chronic. For others, a seizure may occur only once in a lifetime due to a specific cause like an electrical injury or alcohol or drug withdrawal.

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Managing patients having a seizure

As a first aid attendant, you may encounter:

Tonic-clonic seizures (grand mal and petit mal)

Simple partial seizures

The primary objective of first aid treatment for a patient who is having any kind of seizure is to maintain a clear airway and protect the patient from injury.

Tonic-clonic seizures

With tonic-clonic (grand mal) seizures, the patient convulses, loses consciousness, and drops to the ground.

Their muscles contract.

Their body becomes rigid.

Extremities begin to jerk rapidly.

Their jaw tightens and their teeth clench.

They appear to be in danger of respiratory arrest.

Loss of bladder control is common.

The convulsion is followed by a period of decreased consciousness, which typically lasts 10–30 minutes. During this period, the patient gradually improves.

Simple partial seizures

With a simple partial seizure, only the part of the brain that controls motor activity is affected. Typically, only one part of the body begins to twitch or shake. A simple partial seizure may progress into a tonic-clonic seizure.

Treating a seizure

To treat a seizure:

After the patient has stopped actively convulsing, perform a head-tilt chin-lift.

Complete the primary survey.

Place the patient in the ¾-prone position.

Apply a blanket for warmth.

All patients who have had a seizure require rapid transport.

Guided practice 12-02 — demo (if necessary)

Depending on the skill level of participants, this demo may not be necessary. Participants have already practised these skill in previous lessons. Groups of 2

Goal
Manage a patient who is having a seizure.
Scenario
A worker was at his desk when he began to have a seizure. They slid out of their chair and landed on the floor without hitting his head or neck. When you arrive, the seizure has stopped and they are lying on his side with a pool of saliva around his head.

Steps		
1.	Conduct a scene assessment.	No hazards. One injured. Spinal motion restriction not required.
2.	Assess the patient's level of consciousness: Approach the patient from the front, identify yourself, and attempt to communicate. Apply a painful stimulus by squeezing the nail bed on the patient's hand or another appropriate means.	Patient does not respond to verbal stimuli. Patient does not respond to pain either. Based on AVPU, they are unresponsive.

Steps		
3.	Activate workplace emergency response procedure: Ask someone to call an ambulance or have an ETV prepared. If calling an ambulance, tell them "there is an unconscious adult who has had a seizure" and report back.	
4.	Place the patient supine.	
5.	Assess airway, breathing, and pulse: Perform a head-tilt chin-lift. Look, listen, and feel for the movement of air for five seconds. If possible, get a helper to maintain the head-tilt chin-lift.	You hear and feel regular, quiet breathing. You see the patient's chest rise and fall.
6.	Assess circulation: Signs of shock (cool, pale, clammy skin) Rapid body survey (bleeding, fractures)	His skin is normal, warm, and dry. No other injuries are found.
7.	Place the patient in the ¾-prone position.	
8.	Apply a blanket for warmth.	
9.	Transport decision: rapid transfer category	
10.	Complete secondary survey while waiting for transport or en route.	
11.	Check ABCs every five minutes and vital signs every 10 minutes.	
12.	Complete a first aid record.	

Discussion

Types of stroke

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A stroke is a cerebrovascular incident in which a cerebral artery becomes blocked or ruptures.

There are two main types of strokes:

Hemorrhagic strokes, caused by rupture of a cerebral artery

Ischemic strokes, caused by blockage or narrowing of a cerebral artery

Blockage or narrowing of the cerebral artery is also the mechanism that causes a heart attack.

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F — Face: Look for facial droop or asymmetry

A — Arms: Ask the patient to hold both arms out straight in front of them with their palms up. Then ask the patient to close their eyes for 10 seconds. If one of their arms drop, it may be a sign of stroke.

S — Speech: Is the patient speaking normally? Are they oriented in time and place? Can they understand you? Can you understand them?

T — Time: To call 911. If you think the patient may have had a stroke, get them to the hospital as fast as possible.

Guided practice 12-03 — demo (if necessary)

Depending on the skill level of participants, this demo may not be necessary. Participants have already practised these skill in previous lessons.

Goal
Manage a patient who is having a stroke.
Scenario
During a meeting, a worker began to behave strangely. Their face drooped and their speech became garbled. They seemed confused and said they felt dizzy. Then they became unconscious and slid to the floor without hitting their head or neck. When you arrive, they are lying supine.

Steps		
1.	Conduct a scene assessment.	No hazards. One person injured. Spinal motion restriction not required.
2.	Assess the patient's level of consciousness: Approach the patient from the front, identify yourself, and attempt to communicate.	Patient seems to hear you talking, but is confused. They respond in garbled speech.
3.	Activate workplace emergency response procedure: Ask someone to call an ambulance or have an ETV prepared. If calling an ambulance, tell them "there is a conscious adult who may be having a stroke."	

Steps		
4.	Open the airway: a. Perform a head-tilt chin-lift. b. Look, listen and feel for air movement for five seconds. c. Place ¾-prone to facilitate drainage.	Breathing is noisy and gurgly. Airway drains fluids effectively in ¾-prone position.
5.	Assess breathing in ¾-prone position: Look, listen, and feel. Approximate rate (slow, normal, fast) Rhythm and quality (effective, even, deep, shallow, distressed, laboured, gasping) Chest wall movement (both sides should expand equally)	After placing ¾-prone, you hear and feel regular, quiet breathing. You see and feel the patient's chest rise and fall regularly.
6.	Assess circulation: Radial pulse Signs of shock (cool, pale, clammy skin) Rapid body survey (bleeding, fractures)	Radial pulse is present. Skin is warm and dry. No injuries or medical alert devices found during rapid body survey.
7.	Apply a blanket for warmth.	
8.	Transport decision: rapid transport category	Package ¾-prone to allow airway to drain.
9.	Complete a secondary survey while waiting for transport or en route.	
10.	Complete a first aid record.	

Critical incident stress — discussion

A first aid attendant may be expose to significant psychological trauma due to their role, either through a significant event or from the buildup of multiple events.

Critical incident stress may cause physical, cognitive, emotional, and behavioural effects.

Physical effects

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The physical effects of critical incident stress include:

Nausea, weight loss, and diarrhea

Dizziness, shakiness, a weak feeling in the legs, and sweating

Pounding heart, hyperventilation, and a feeling of fatigue

Headaches, general aches and pains, and chest pains

Cognitive effects

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The cognitive effects of critical incident stress include difficulties in:

Concentrating, including absent-mindedness

Making decisions, including confusion

Performing tasks

Emotional effects

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The emotional effects of critical incident stress include feeling:

Anxious, jumpy, and irritable

Guilt, anger, fear, and grief

Depressed, possibly with mood swings, nightmares, and flashbacks

Lost, helpless, and abandoned

Behavioural effects

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The behavioural effects of critical incident stress include:

Increased use of drugs or alcohol

Difficulty going certain places

Withdrawal from family, friends, and colleagues

Difficulty being alone

Self-care is important for the attendant.

Self-care

Pace yourself; strive for a work–life balance.

Make time for yourself.

Maintain your health:

- Get enough sleep.
- Eat properly.
- Be active.
- Manage stress and use relaxation techniques.

Find support ahead of time from a:

- Co-worker
- Supervisor
- Friend
- Peer "buddy" support system
- Social connections
- Family

Use humour

Recognize successes

If you find yourself experiencing stress or anxiety, reach out, talk to someone, and ask for support.

Appendix E has additional information on critical incident stress and post-traumatic stress disorder (PTSD).

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Appendix A — AEDs/Secondary Survey

Sections

Automated external defibrillators

Two-person CPR with AED

Secondary survey - unresponsive

Automated external defibrillators in the workplace

If AEDs are provided for use in a workplace, occupational health and safety requirements apply. Some of the applicable provisions include sections 3.16, 3.17, 4.3, 4.5, 4.10 of the Occupational Health and Safety Regulation and section 21 of the *Workers Compensation Act*.

To assist employers and first aid attendants, WorkSafeBC's Certification Services offers the following information:

An AED is not required by the OHS Regulation; however, AED training is included in all of the first aid and first aid equivalent courses. No separate certificate is issued for the CPR and AED training received in a first aid course — the training is simply part of the course. Workers who possess a valid first aid certificate were able to demonstrate competency deploying an AED as part of their training or examination and were duly certified by their first aid instructor or evaluator. The AED training a worker receives in a first aid course may not be as comprehensive as what a worker might receive if brand-specific AED training were taken.

An AED that is in the workplace is considered to be part of the workplace first aid equipment (sections 3.16 and 3.17 of the OHS Regulation). Workers are trained in the use of an AED when taking a first aid course, but only the emergency application protocol. There is very little information about the care, maintenance, and inspections recommended by the manufacturer included in a first aid course. (That information would be found in the workplace AED user manual and spec sheet.)

The brand of AED training simulator used in a first aid or first-aid-equivalent course may be different from the brand of AED found in a workplace. Just as for any piece of equipment, the worker must be trained in the use of the equipment and authorized to use it (section 4.10 of the OHS Regulation). Inspection and maintenance records may be required for the AED as per the manufacturer's instructions; some inspections may be daily, weekly, monthly, etc. (sections 4.3 and 4.9 of the OHS Regulation).

Although medical oversight is not required by the OHS Regulation, it is recommended. Physicians with an expertise in pre-hospital defibrillation can offer expert advice on training issues, special situation protocols, AED policies and procedures, post-arrest data management, and the handling of confidential patient clinical information. This will assist the workplace gaining compliance with the applicable sections of the OSH Regulation and other generally accepted medical practices in Canada.

Written procedures need to include who is to, and how to, access the AED and must include the location of the AED (section 3.17 of the OHS Regulation). The first aid attendants in a workplace should be able to answer questions specific to the AED unit that is available at the workplace. The AED user manual and specifications sheet will allow for the development of a checklist that the first aid attendants should use to conduct inspections of the workplace unit(s). During WorkSafeBC inspections of a jobsite, officers may question the first aid attendant to establish

knowledge of the on-site AED and any routine inspections and/or pre-use checks that should be performed.

If the brand of AED training unit (AED simulator) used to instruct a first aid course is different from the brand of AED unit found in a workplace, the first aid attendants will require further orientation and training specific to the AED brand found in the workplace. A separate certificate is not required for an AED, but records of the training are required.

If the employer determines that medical oversight is appropriate (possibly following a first aid assessment), the medical director may establish additional training and orientation including the frequency of any CPR and AED retraining. Currently all first aid and equivalent certificates are valid for three years.

Certification Services supports the Canadian Heart and Stroke Foundation recommendations for periodic assessment of rescuer knowledge and skills, with reinforcement or refresher information provided as needed during the certification period. Ideally, retraining should not be limited to three-year recertification intervals.

Questions about first aid certification or AED training should be directed to an approved first aid training provider or to WorkSafeBC's Certification Services at 604.276.3090 or certification@worksafebc.com.

Two-person CPR with AED

Two-person CPR with AED

Assess		Response
1.	Scene assessment The first aid attendant is alerted about a medical situation in one of the restrooms.	No danger. One worker. Co-workers in the area report one worker suddenly felt ill and was helped to the floor. No trauma.
2.	Assess responsiveness — AVPU	Worker does not respond to your voice or pain.
3.	Approach the worker from the front, identify yourself, and attempt to talk with the worker. Pinch the finger on the worker's hand closest to you.	The worker does not respond to pain.
4.	Transport decision	Because this worker is not responsive, this worker requires urgent medical attention.
5.	Activate the worksite emergency response procedures: Instruct the co-worker calling the ambulance to say "there is an unresponsive adult worker" and to report back.	First attendant on scene activates the workplace emergency response procedures and calls for the AED.
6.	Primary survey: From the side of the worker, open the airway using a head-tilt chin-lift. Assess breathing for 5–10 seconds	First attendant on scene assesses the primary survey. The second attendant prepares the AED. There is no breathing.

Assess		Response
7.	Request any other first aid attendants or workers trained in CPR to assist: First attendant — designate a co-worker to update the ambulance that you are starting CPR/AED.	Second attendant arrives immediately with AED.
8.	The second attendant prepares the AED: Position the AED so it is located on the side of the worker closest to the operator. Open and turn on the AED. Follow voice prompts. Ensure the AED pads are not expired or torn and are connected to the AED.	**Note:** The AED model at the workplace may operate differently. The employer must ensure that the attendant is trained on the specific model used at the workplace.
9.	Second attendant — attach the AED: Prepare the worker's chest for the AED pads. Remove the backing from the pads and place one pad below the worker's right collar bone and the other pad on the left side of the chest, just below nipple level.	Worker's chest is dry. There is no chest hair. There are no medication patches or any implanted medical devices.
10.	Second attendant — analyze the heart rhythm: Ensure no one is touching the worker and everyone is standing clear. Continue following voice prompts.	The AED gives a "Shock Advised" prompt.
11.	Second attendant — deliver a shock: Ensure no one is touching the worker and everyone is standing clear. State: "I'm clear, everyone is clear, do not touch the Worker." Press the shock button if the AED advises.	**Note:** if a "No Shock" prompt was given, then two minutes of CPR is administered before the heart rhythm is re-analyzed.

Assess		Response
12.	Administer two minutes of CPR: Repeat 30 compressions to two breaths for a total of five cycles.	First attendant starts compressions. Second attendant provides breaths (ventilations). Participant administer 30 chest compressions and two breaths (ventilations): Hand position is in the centre of the chest between the nipples. Chest is compressed at least 5 cm. Chest compressions are at a rate of at least 100–120 per minute. Chest wall rises with each ventilation. Allow the chest to recoil after each compression.
13.	Repeat cycles of analyze and shock or no shock and two minutes of CPR until: A physician assumes responsibility The worker is transferred to ambulance personnel The attendant is physically exhausted and unable to continue Spontaneous breathing and circulation are restored	First and second attendant switch roles every two minutes.

NOTE: If a second trained first aid attendant arrives during CPR, have them prepare to take over chest compressions after the ventilations are provided. The two first aid attendants should switch roles every two minutes.

Secondary survey — unresponsive 5-04

Skill Practice

Goal
Complete a more thorough assessment of an unresponsive patient to determine the full extent of the developing injury or illness, and identify any other injuries or illnesses.
Scenario
A worker fell 3 m (9.8 ft.) from a stepladder. The worker was lying supine when you arrived. The worker is not moving or making any sounds. You've called for an ambulance or the workplace ETV. While waiting, complete a primary and secondary survey.

Assess		**Response**
1.	Complete a scene assessment.	Based on the mechanism of injury, spinal motion restriction is required.
2.	Assess the patient's level of consciousness. Approach patient from front. Identify yourself and advise the patient not to move. Ask what happened. Alert: Patient is aware of surroundings. Verbal: Patient responds when spoken to. Pain: Patient doesn't respond to questions but responds to painful stimulus. Unresponsive: Patient doesn't respond to any stimuli.	The worker is not responding to your voice. You apply a pain stimulus to their finger and still get no response. They are unresponsive.
3.	Activate the workplace emergency response procedures. Patient is unresponsive. Ask someone to call an ambulance. Say "there's an unresponsive adult who has fallen," and report back.	

Assess		Response
4.	Perform a head-tilt chin-lift to open the airway. a. Place one hand on the forehead. b. Place other hand under the chin on the side closest to you. c. Gently push back on the forehead and lift the chin.	
5.	Assess the airway. Look, listen, and feel for 5–10 seconds.	Airway is clear.
6.	Assess the patient's breathing. Look, listen, and feel.	Quiet breathing is heard. Patient is breathing normally.
7.	If possible, train a helper to take over the head- tilt chin-lift: "Kneel on the opposite side of the patient. Place your hands over mine: one on the forehead and the other under the chin. Maintain the head-tilt chin-lift. Let me know if you have to move so I can help." If there is no help available, you may have to improvise using readily available materials to maintain the head-tilt chin-lift until help arrives.	
8.	Assess the patient's circulation. Signs of shock (cool, pale, clammy skin) Rapid body survey (massive bleeding)	Skin is normal, warm, and dry. No blood visible. No injury other than slight deformity at the knee (possible fracture). Provide support for the injured leg.

Assess		Response
9.	Determine if critical interventions are required.	The head-tilt chin-lift needs to be maintained to protect the patient's airway.
10.	Transport decision. Rapid transport, medical aid, or return-to-work?	Rapid transport. The patient is unresponsive. An ambulance has been called.
11.	Cover the patient with a blanket.	
12.	Start the secondary survey. Record the patient's name, date, time, and all the secondary survey findings.	As provided
13.	Assess breathing rate and quality. Rate: Count chest wall movements (in and out is one breath). Multiply 15-second interval by four. Normal is 12–20 per minute. Quality: effective, even, deep, shallow, distressed, laboured, gasping	Their breathing rate is 12 per minute. Their breathing is effective and even. Both sides expand equally.
14.	Assess level of consciousness: Ask the patient what happened. Alert: Patient is aware of surroundings. Verbal: Patient responds when spoken to. Pain: Patient doesn't respond to questions, but responds to painful stimulus. Unresponsive: Patient doesn't respond to any stimuli.	Patient does not respond to your voice. Patient now withdraws from pain. Patient responds to painful stimulus.

Assess		Response
15.	Assess heart rate and quality. Rate: Count pulse. Multiply 15-second interval by four. Normal is 60 to 80 per minute. Quality: weak, strong, regular, irregular	Their heart rate is 88 per minute. Their pulse quality is regular and easy felt.
16.	Assess skin colour, temperature ,and condition. Pale = blood loss and possible shock Blue = cyanosis (low oxygen), possible cardiorespiratory emergency Cold, sweating = possible shock	Skin is normal, dry, and warm. No signs of shock.
17.	Record patient's medical history. Where does it hurt? What happened? Allergies? Medical alert devices? Medications: name, dose, frequency, purpose, compliance Past medical history related to current problem	Fell off stepladder. No known allergies. No medical alerts. Unknown medications. Unknown relevant past medical history.
18.	Complete head-to-toe check. Look for injuries not identified earlier. Check circulation: skin temperature and colour. Check motor and sensory function: range of motion. Check sensory function: move toes and feet.	There is redness and slight swelling distal to the patella on the anterior side. Patient winces to pain on palpation of right knee. Possible fractured tibia. No other injuries found. Circulation, motor function, and sensory function are equal on all extremities.
19.	Reassess the ABCs at five-minute intervals	ABCs same as vitals. No change.

Appendix B — Administrative and Housekeeping

Sections

Cleaning equipment and furniture

Metal instruments

Pocket masks

Workplace written first aid procedures

Cleaning equipment and furniture

The first aid attendant is responsible for maintaining the cleanliness of equipment and furniture in the first aid room and ETV or ambulance. This involves two processes: washing and disinfecting. Because soil protects micro-organisms from contact with the disinfecting agent, the equipment and furniture must be washed with a detergent and water prior to being disinfected. Any organic matter must be removed.

Some disinfecting solutions cause metal instruments to rust and may damage plastic. Chlorine-based preparations are examples of such solutions. Where the use of chlorine bleach (household bleach) is recommended, a buffered chlorine solution that is less corrosive, such as sodium dichloroisocyanurate (e.g., Presept™) tablets dissolved in water, is preferred.

Because the chemicals mentioned in this section are considered hazardous materials under the workplace hazardous materials information system (WHMIS), a safety data sheet must be available for each chemical. Proper storage and ventilation must be ensured, and all WHMIS requirements must be followed.

Procedures

Metal instruments

1. Wear eye protection and impervious gloves. Nitrile rubber, which is resistant to bleach and isopropyl alcohol, is recommended.
2. Wash instruments thoroughly with detergent and water, removing all debris. Take care when washing thermometers that the water is not too hot. The use of disposable thermometers may be considered.
3. Rinse the instruments well with tap water and shake off the excess.
4. Place the instruments in a clean container with 70% isopropyl alcohol — enough to completely cover the instruments — for 15–20 minutes.
5. Remove the instruments from the soaking container using lifting forceps. Allow the instruments to air dry and store them in a covered storage container that has been disinfected. Do not store in solution. Storage containers must be disinfected weekly.

Isopropyl alcohol evaporates and thus becomes less concentrated, which decreases its effectiveness. The soaking container must have a lid, and the solution must be changed at least weekly. It is suggested that the changes be recorded in a written log. Isopropyl alcohol is also flammable, so it should be stored in a cool, well-ventilated area where smoking is not permitted.

Sterilization, which kills all micro-organisms, is rarely required in a first aid setting. If sterilization is necessary, a tabletop autoclave may be used, following the manufacturer’s

instructions. Instruments may also be immersed in boiling water for 10–15 minutes after being washed with detergent and water. The sterilizing water must be changed on a daily basis to prevent contamination. Instruments must not be stored in the water.

Pocket masks

1. Wear impervious gloves — nitrile rubber is recommended.
2. Wash masks thoroughly with detergent and water, removing all debris. The one-way valve and filter must be replaced after each patient use.
3. Rinse well with tap water and shake off the excess water.
4. Submerge in a solution of one part household bleach to 10 parts water — 0.5% sodium hypochlorite — for 10 minutes. This solution must be mixed fresh for each use.
5. Rinse again and allow to dry.
6. Store in a clean container.

Large equipment, first aid room, and ambulance

A routine thorough cleaning program — at least weekly — should be in place as part of the workplace's written policies and procedures. Stretchers, treatment chairs, tables, countertops, walls, and floors — as well as the ambulance interior — must be cleaned by the first aid attendant following any contamination.

Blood and bodily fluid spills should be cleaned up immediately using paper towels, detergent, and water, followed by a freshly mixed solution of household bleach diluted 1:10 with water. Leave the bleach solution on surfaces for 10 minutes before wiping off.

1. Wear impervious gloves and other appropriate protective equipment such as gowns, shoe coverings, and face shields, as necessary.
2. Clean the surfaces with a towel, then a detergent solution.
3. Pour the bleach solution on the surfaces, leave on for 10 minutes, and wipe off.
4. Use a cleaning bottle on all hard-to-reach areas — e.g., the stretcher frame. An aerosol bottle must not be used for this, as the vaporized droplets are harmful when inhaled.

Workplace written first aid procedures

Under the OHS Regulation, employers are required to have up-to-date written procedures for providing first aid at the workplace, including procedures for summoning first aid and details of emergency transportation arrangements where applicable.

Suggestions for summoning a first aid attendant

Communication and availability (section 3.18 of the OHS Regulation)

Suggested procedures for summoning the first aid attendant could consist of a whistle, siren, series of lights, pager, two-way radios, or portable (cellular) phones. The key is that everyone knows how to use it, and it works.

Upon determining the need for a first aid attendant, activate the system in your workplace that will alert the attendant. The attendant will need to know:

Location of casualty or incident

Type of incident and injuries

Number of casualties

Need for special equipment

Ambulance required

Suggestions for summoning an ambulance

It is important to have a plan in place to call for an ambulance if one is required. The authority to call must be designated so that the ambulance service doesn't receive multiple calls.

The ambulance dispatcher will need to know:

That it is a workplace incident

The complete company address; this may need to include more specific directions or details

The site telephone number

Whether first aid is attending, en route, or not available

A description of the incident

The number of casualties

Whether the worker is conscious or unconscious

A brief description of the injuries

It is also important to designate an individual to meet the ambulance at a predetermined location (communicated to ambulance dispatcher) to escort them by the most direct route to the incident area.

Company transport

If the OHS Regulation requires your workplace to have an emergency transport vehicle (ETV) or industrial ambulance to transport injured workers, refer to section 3.16 (1)(b) of the OHS Regulation and its accompanying guideline.

It may still be necessary to contact the BC Ambulance Service to meet part way and transfer the patient. You may need to notify the closest hospital of the arrival of a patient. There must be clear directions in the written procedures for these circumstances.

Air transport

Section 3.17.1 of the OHS Regulation and its accompanying OHS guideline outline the requirements for workplaces where air transportation is the primary or only method for transporting an injured worker.

The employer is responsible for ensuring they have met the requirements for air transportation, and that written procedures are in place that include all of this information. Procedures should be posted so they are available for all workers to reference. The employer is also responsible for ensuring first aid attendants are trained in the workplace-specific procedures, as well as any special equipment such as stretchers or spine boards.

(Sample)

Emergency procedures

Medical

All injuries or illnesses must be reported.

Collapse or serious injury

Person closest to injured person:

1. Ensure the incident scene is safe and that there is no further danger to you or the injured person.
2. Do not move the injured person unless there is a high risk of further injury and it is safe for you to do so.
3. Keep calm and do not leave the injured worker unattended.
4. Contact the first aid attendant immediately and report the exact location of the patient and the patient’s condition.
5. Be prepared to assist when directed by the first aid attendant.

Emergency phone numbers XXX.123.4567 first aid attendant 911 ambulance If required or requested by the first aid attendant, call for an ambulance and provide as much information as possible. Designate someone to meet the ambulance.	Work Location 333 Main Street Anywhere, BC Phone: XXX.123.122 Corner of Main Street and Second Avenue Front door — main access for ambulance

Appendix C — Patient Handouts (for at-home care)

Sections

Small wounds and cuts

Sprains

Tendinitis

Flash burns and snow blindness

Minor burns

Minor back strain

Small wounds and cuts

You have an open wound.

With proper care it should start to feel better in about three to four days. The healing process will be more effective by following this advice:

Keep dressing clean and dry.

If skin closures have been applied, they are to remain in place for 7 to 10 days.

When bathing or showering, cover dressings to prevent moisture from entering.

You should notice some redness around the wound, which is the natural healing process.

You may also notice slight pain the day following the injury; this is also part of the natural healing process.

Report to first aid within 24 to 48 hours after the injury; first aid will reassess and re-bandage.

If at any time you notice that pain, redness, and swelling increase significantly, or if there is pus or red streaks coming from the wound, report to first aid, who may refer you to medical aid. If the condition becomes significantly worse while you are not at work and you decide to seek medical aid, notify the attendant as soon as possible.

Sprains

A sprain is stretching, or a partial or complete tear, of a ligament at a joint. You have suffered a mild sprain involving a stretching of the ligaments. With proper care it should start to feel better in about three to four days. The healing process will be more effective by following this advice:

Whenever possible, elevate the limb.

Continue to apply cold for 20 minutes on, 5 minutes off.

Remove the crepe bandage for sleeping.

You may notice some pain the following day when bearing weight; with the crepe removed you may notice some increased swelling when the limb is not elevated.

Report to first aid at the start of your next shift; the first aid attendant will reassess and re-bandage if necessary.

You may need to discuss altering work activity with your supervisor.

If at any time you become unable to bear weight or the pain and swelling increase significantly, report to first aid, who may refer you to medical aid. If the condition becomes significantly worse while you are not at work and you decide to seek medical aid, notify the first aid attendant as soon as possible.

Tendinitis

Tendinitis is the inflammation of the tendon.

You have tendinitis (also called RSI, repetitive strain injury) from excessive, unaccustomed activity.

With proper care it should start to feel better in about three to four days. The healing process will be more effective by following this advice:

Avoid motion that aggravates the tendons.

If a small working splint was applied, keep it in place as much as possible, remove the splint for sleeping.

Continue to apply cold for 20 minutes on, 5 minutes off.

Alternating cold and heat may also assist in healing.

You may notice minor pain the following day.

Report to first aid at the start of your next shift; the first aid attendant will reassess and reapply the splint if necessary.

You may need to discuss altering work activity with your supervisor.

If at any time pain and swelling increase significantly, report to first aid, who may refer you to medical aid. If the condition becomes significantly worse while you are not at work and you decide to seek medical aid, notify the first aid attendant as soon as possible.

Flash burns and snow blindness

Flash burns and snow blindness are burns to the surface of the cornea.

Direct or reflected ultraviolet light from an electric arc, a welding torch, or sun (UV) exposure may cause a flash burn or snow blindness. Corneal burns become more painful after some hours, depending on the severity and length of exposure.

Although flash burns and snow blindness can be very uncomfortable, they are not serious and usually heal in 12 to 24 hours.

The healing process will be more effective by following this advice:

Use cold compresses at night for pain.

Avoid bright lights, as this may aggravate the flash burns and snow blindness.

Wearing dark glasses may relieve some of the pain.

Avoid rubbing eyes.

Remove contact lenses.

Mild pain medication (ASA or acetaminophen) may help you sleep at night.

You may notice minor pain the following day — this is normal.

Report to first aid at the start of your next shift; first aid will reassess and document any symptoms you are experiencing.

You may need to discuss altering work activity with your supervisor.

If at any time the pain increases significantly, report to first aid, who may refer you to medical aid. If the condition becomes significantly worse while you are not at work and you decide to seek medical aid, notify the first aid attendant as soon as possible.

Minor burns

You have a minor burn.

The reddening of your skin indicates a first-degree burn, and if there are small blisters, that indicates a second-degree burn.

The healing process will be more effective by following this advice:

Keep the burned area covered.

Ensure the dressings stay dry and clean.

You may notice minor pain the following day — this is normal.

Report to first aid at the start of your next shift; first aid will reassess and document any symptoms you are experiencing.

You may need to discuss altering work activity with your supervisor.

If at any time the pain increases significantly, report to first aid, who may refer you to medical aid. If the condition becomes significantly worse while you are not at work and you decide to seek medical aid, notify the first aid attendant as soon as possible.

Minor back strain

You have strained the muscles or tendons in your back.

With proper care it should start to feel better in a few days to a week. The healing process will be more effective by following this advice:

Avoid motion that aggravates the muscles and tendons.

Continue to apply cold for 20 minutes on, 5 minutes off for the first 24 hours.

After 24 hours, the application of heat may also assist in healing.

You may notice minor pain the following day.

Report to first aid at the start of your next shift; the first aid attendant will reassess your back, which will include a range of motion check and will document any symptoms you are experiencing.

You may need to discuss altering work activity with your supervisor.

Although moving around may be uncomfortable, it is important to keep active without aggravating the injury. This will help relieve muscle spasms and help strengthen the back muscles.

If at any time the pain increases significantly, report to first aid, who may refer you to medical aid. If the condition becomes significantly worse while you are not at work and you decide to seek medical aid, notify the first aid attendant as soon as possible.

Appendix D — Records

Sections

Sample of completed first aid record for arm laceration

Completed first aid record for arm laceration follow-up

Blank first aid record

Sample safety data sheet (SDS)

First aid record

Sequence number 20240016

This record must be kept by the employer for three years

Name	Occupation
Mary George	Millwright
Date of injury or illness	**Time of injury or illness**
2024-02-01	2:35 PM
Initial reporting date and time	**Follow-up report date and time**
2024-02-01 at 2:40 PM	☐
Initial report sequence #	**Subsequent report sequence number(s)**

A description of how the injury, exposure, or illness occurred (What happened?)

Worker was reaching down into the motor on power unit 16, tightening the exhaust manifold. She cut her left arm on a sharp piece of heat-shielding metal when she pulled her arms out of the power unit.

A description of the nature of the injury, exposure, or illness (What you see — signs and symptoms)

ABCs all normal; no allergies; 2 cm long laceration to the upper inside area of the left forearm.

Laceration is just through the thickness of the skin. Minimal bleeding and pain; no swelling; wound appears clean; normal circulation and nerve function beyond the injury.

A description of the treatment given (What did you do?)

Assessed ABCs; supported arm and covered wound with sterile gauze. Examined arm from shoulder to fingertips. Cleaned the wound by prolonged flushing of the wound with tap water.

Applied skin closures. Dressed with four layers of sterile gauze and absorbent dressing; bandaged with crepe roller.

Name of witnesses	
1. Anna Prentice was working with Mary George	

Arrangements made relating to the worker (return to work, medical aid, ambulance, follow-up)

Return to work. Discussed worker handout sheet. Advised to keep dressing clean and dry and to return to first aid immediately if gets wet or dirty or pain increases. Must return at start of next shift (Feb 2, 2024) for redressing.

Provided worker handout	☒ Yes	☐ No
Alternate duty options were discussed	☐ Yes	☒ No
A form to assist in return to work and follow-up was sent with the worker to medical aid	☐ Yes	☐ No

First aid attendant's name (please print)	First aid attendant's signature
Lee Lewis	*Lee Lewis*
Patient's signature	
Mary George	

This form must be kept at the employer's workplace and is not to be submitted to WorkSafeBC.

First aid record

Sequence number 20240018

This record must be kept by the employer for three years

Name	Occupation
Mary George	Millwright
Date of injury or illness	**Time of injury or illness**
2024-02-01	10:02 AM
Initial reporting date and time	**Follow-up report date and time**
2024-02-01 at 10:05 AM	☒ 2024-02-02 at 8:10 AM
Initial report sequence #	**Subsequent report sequence number(s)**
20240016	

A description of how the injury, exposure, or illness occurred (What happened?)

See report on Sequence #20160016

A description of the nature of the injury, exposure, or illness (What you see — signs and symptoms)

ABCs all normal; 2 cm long laceration to the upper inside area of the left forearm. Laceration is beginning to heal. Skin closures still in place. Minimal redness and pain; no swelling or pus; normal circulation and nerve function beyond the injury.

A description of the treatment given (What did you do?)

Assessed ABCs; supported arm and removed old bandage and dressing. Examined arm from elbow to fingertips. Cleansed around wound with water or sterile saline, cleaned over wound with sterile saline. Left skin closures in place. Dressed with four layers of sterile gauze and absorbent dressing; bandaged with crepe roller.

Name of witnesses	
1. Anna Prentice — was working with Mary George	

Arrangements made relating to the worker (return to work, medical aid, ambulance, follow-up)

Return to work. Discussed worker handout sheet. Advised to keep dressing clean and dry and to return to first aid immediately if gets wet or dirty or pain increases. Must return at start of next shift in two days (Feb 2, 2024) for redressing.

Provided worker handout	☒ Yes	☐ No
Alternate duty options were discussed	☐ Yes	☒ No
A form to assist in return to work and follow-up was sent with the worker to medical aid	☐ Yes	☐ No

First aid attendant's name (please print)	First aid attendant's signature
Lee Lewis	*Lee Lewis*
Patient's signature	
Mary George	

This form must be kept at the employer's workplace and is not to be submitted to WorkSafeBC.

First aid record

Sequence number

This record must be kept by the employer for three years.

Name	Occupation
Date of injury or illness	Time of injury or illness
Initial reporting date and time	Follow-up report date and time ☐
Initial report sequence #	Subsequent report sequence number(s)

A description of how the injury, exposure, or illness occurred (What happened?)

A description of the nature of the injury, exposure, or illness (What you see — signs and symptoms)

A description of the treatment given (What did you do?)

Name of witnesses	
1.	

Arrangements made relating to the worker (return to work, medical aid, ambulance, follow-up)

Provided worker handout	☐ Yes	☐ No
Alternate duty options were discussed	☐ Yes	☐ No
A form to assist in return to work and follow-up was sent with the worker to medical aid	☐ Yes	☐ No

First aid attendant's name (please print)	First aid attendant's signature
Patient's signature	

This form must be kept at the employer's workplace and is not to be submitted to WorkSafeBC.

Safety Data Sheet

1 - Identification

Trade Name: WD-40® Smart Straw Multi-Use Product Aerosol **Product Use:** Lubricant, Penetrant, Drives Out Moisture, and Protects from Corrosion **Restrictions on Use:** None identified **SDS Date of Preparation:** October 9, 2023	**Canadian Office:** WD-40 Products [Canada] Ltd. P.O. Box 220 Toronto, Ontario M9C 4V3 **Information Phone #:** (416) 622-9881 **Emergency Phone # 24 hr: Chemtrec: 1-800-424-9300** Designated for use only in the event of chemical emergencies involving a spill, leak, fire exposure or accident involving chemicals. **Medical Emergency:** 1-888-324-7596

2 – Hazards Identification

WHMIS 2022/GHS Classification:
Flammable Aerosol Category 1
Aspiration Toxicity Category 1
Specific Target Organ Toxicity Single Exposure Category 3 (nervous system effects)

Note: This product is a consumer product and is labeled in accordance with the Consumer Chemicals and Containers Regulations (CCCR) which take precedence over WHMIS 2022 labeling. The actual container label will not include the label elements below. The labeling below applies to industrial/professional products.

Label Elements:

DANGER!
Extremely flammable aerosol. Pressurized container: may burst if heated.
May be fatal if swallowed and enters airways.
May cause drowsiness or dizziness.

Prevention
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Do not spray on an open flame or other ignition source.
Do not pierce or burn, even after use.
Avoid breathing mist or vapors.
Use only outdoors or in a well-ventilated area.
Response
IF SWALLOWED: Immediately call a POISON CENTER or physician. Do NOT induce vomiting.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
Call a POISON CENTER or doctor if you fell unwell.
Storage
Store locked up.
Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F. Store in a well-ventilated place.
Disposal
Dispose of contents and container in accordance with local and national regulations.

3 - Composition/Information on Ingredients

Ingredient	CAS #	Weight Percent	WHMIS 2022/ GHS Classification
LVP Aliphatic Hydrocarbon	64742-47-8	45-50%	Aspiration Toxicity Category 1
Petroleum Base Oil	Mixture	<35%	Not Hazardous
Aliphatic Hydrocarbon	64742-47-8	<25%	Flammable Liquid Category 3 Aspiration Toxicity Category 1 Specific Target Organ Toxicity Single Exposure Category 3 (nervous system effects)
Carbon Dioxide	124-38-9	2-3%	Simple Asphyxiant

4 – First Aid Measures

Ingestion (Swallowed): Aspiration Hazard. DO NOT induce vomiting. Call physician, poison control center or the WD-40 Safety Hotline at 1-888-324-7596 immediately.
Eye Contact: Flush thoroughly with water. Remove contact lenses if present after the first 5 minutes and continue flushing for several more minutes. Get medical attention if irritation persists.
Skin Contact: Wash with soap and water. If irritation develops and persists, get medical attention.
Inhalation (Breathing): If irritation is experienced, move to fresh air. Get medical attention if irritation or other symptoms develop and persist.
Signs and Symptoms of Exposure: Harmful or fatal is swallowed. If swallowed, may be aspirated and cause lung damage. May cause eye irritation. Inhalation of mists or vapors may cause nasal and respiratory tract irritation and central nervous system effects such as headache, dizziness and nausea. Skin contact may cause drying of the skin.
Indication of Immediate Medical Attention/Special Treatment Needed: Immediate medical attention is needed for ingestion.

5 – Fire Fighting Measures

Suitable (and unsuitable) Extinguishing Media: Use water fog, dry chemical, carbon dioxide or foam. Do not use water jet or flooding amounts of water. Burning product will float on the surface and spread fire.
Specific Hazards Arising from the Chemical: Contents under pressure. Keep away from ignition sources and open flames. Exposure of containers to extreme heat and flames can cause them to rupture often with violent force. Vapors are heavier than air and may travel along surfaces to remote ignition sources and flash back. Combustion will produce oxides of carbon and hydrocarbons.
Special Protective Equipment and Precautions for Fire-Fighters: Firefighters should always wear positive pressure self-contained breathing apparatus and full protective clothing. Cool fire-exposed containers with water. Use shielding to protect against bursting containers.

6 – Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures: Wear appropriate protective clothing (see Section 8). Eliminate all sources of ignition and ventilate area.
Methods and Materials for Containment/Cleanup: Leaking cans should be placed in a plastic bag or open pail until the pressure has dissipated. Contain and collect liquid with an inert absorbent and place in a container for disposal. Clean spill area thoroughly. Report spills to authorities as required.

7 – Handling and Storage

Precautions for Safe Handling: Avoid contact with eyes. Avoid prolonged contact with skin. Avoid breathing vapors or aerosols. Use only with adequate ventilation. Keep away from heat, sparks, pilot lights, hot surfaces and open flames. Unplug electrical tools, motors and appliances before spraying or bringing the can near any source of electricity. Electricity can burn a hole in the can and cause contents to burst into flames. To avoid serious burn injury, do not let the can touch battery terminals, electrical connections on motors or appliances or any other source of electricity. Wash thoroughly with soap and water after handling. Keep containers closed when not in use. Keep out of the reach of children. Do not puncture, crush or incinerate containers, even when empty.

Conditions for Safe Storage: Store in a cool, well-ventilated area, away from incompatible materials. Do not store above 120°F or in direct sunlight. U.F.C (NFPA 30B) Level 3 Aerosol. Store away from oxidizers.

8 – Exposure Controls/Personal Protection

Chemical	Occupational Exposure limits
LVP Aliphatic Hydrocarbon	1200 mg/m3 TWA (manufacturer recommended)
Petroleum Base Oil	5 mg/m3 TWA (Inhalable) ACGIH TLV (as Mineral oil) 1 mg/m3 TWA Canada- Québec (as oil mist, mineral) 5 mg/m3 TWA (Inhalable) Canada- Ontario (as oil mist, mineral) 1 mg/m3 TWA British Columbia (as Oil mist-mineral, severely refined)
Aliphatic Hydrocarbon	1200 mg/m3 TWA (manufacturer recommended)
Carbon Dioxide	5000 ppm TWA, 30,000 ppm STEL ACGIH TLV 5000 ppm TWA, 30,000 ppm STEL Canada-Ontario 5000 ppm TWA, 30,000 ppm STEL Canada-Québec 5000 ppm TWA, 15,000 ppm STEL British Columbia

The Following Controls are Recommended for Normal Consumer Use of this Product
Appropriate Engineering Controls: Use in a well-ventilated area.
Personal Protection:
Eye Protection: Avoid eye contact. Always spray away from your face.
Skin Protection: Avoid prolonged skin contact. Chemical resistant gloves recommended for operations where skin contact is likely.
Respiratory Protection: None needed for normal use with adequate ventilation.

For Bulk Processing or Workplace Use the Following Controls are Recommended
Appropriate Engineering Controls: Use adequate general and local exhaust ventilation to maintain exposure levels below that occupational exposure limits.
Personal Protection:
Eye Protection: Safety goggles recommended where eye contact is possible.
Skin Protection: Wear chemical resistant gloves.
Respiratory Protection: None required if ventilation is adequate. If the occupational exposure limits are exceeded, wear a NIOSH approved organic vapor/particulate or supplied air respirator in accordance with local and national regulations. Respirator selection and use should be based on contaminant type, form and concentration. Follow applicable regulations and good Industrial Hygiene practice.
Work/Hygiene Practices: Wash with soap and water after handling.

9 – Physical and Chemical Properties

Physical State:	Liquid	Particle Characteristics:	Not applicable
Color:	Light green to amber	Flammable Limits: (Solvent Portion)	LEL: 0.6% UEL: 8%
Odor:	Mild petroleum odor	Vapor Pressure:	95-115 PSI @ 70°F
Odor Threshold:	Not established	Relative Vapor Density:	Greater than 1 (air=1)
pH:	Not Applicable	Relative Density:	0.8 – 0.82 @ 60°F
Melting/Freezing Point:	Not established	Solubilities:	Insoluble in water
Boiling Point/Range:	361 - 369°F (183 - 187°C)	Partition Coefficient; n-octanol/water:	Not established
Flash Point:	138°F (59°C) Tag Closed Cup (liquid)	Autoignition Temperature:	Not established
Evaporation Rate:	Not established	Decomposition Temperature:	Not established
Flammability (solid, gas):	Flammable Aerosol	Kinematic Viscosity:	2.79-2.96 cSt @ 100°F
VOC:	24.1%	Pour Point:	-63°C (-81.4°F) ASTM D-97

10 – Stability and Reactivity

Reactivity: Not reactive under normal conditions
Chemical Stability: Stable
Possibility of Hazardous Reactions: May react with strong oxidizers generating heat.
Conditions to Avoid: Avoid heat, sparks, flames and other sources of ignition. Do not puncture or incinerate containers.
Incompatible Materials: Strong oxidizing agents.
Hazardous Decomposition Products: Carbon monoxide and carbon dioxide.

11 – Toxicological Information

Symptoms of Overexposure:
Inhalation: High concentrations may cause nasal and respiratory irritation and central nervous system effects such as headache, dizziness and nausea. Intentional abuse may be harmful or fatal.
Skin Contact: Prolonged and/or repeated contact may produce mild irritation and defatting with possible dermatitis.
Eye Contact: Contact may be irritating to eyes. May cause redness and tearing.
Ingestion: This product has low oral toxicity. Swallowing may cause gastrointestinal irritation, nausea, vomiting and diarrhea. This product is an aspiration hazard. If swallowed, can enter the lungs and may cause chemical pneumonitis, severe lung damage and death.
Chronic Effects: None expected.
Carcinogen Status: None of the components are listed as a carcinogen or suspect carcinogen by IARC, NTP, ACGIH or OSHA.
Reproductive Toxicity: None of the components is considered a reproductive hazard.

Numerical Measures of Toxicity:
Acute Toxicity Estimates: Oral > 5,000 mg/kg; Dermal >2,000 mg/kg based on an assessment of the ingredients. This product is not classified as toxic by established criteria. It is an aspiration hazard.

12 – Ecological Information

Ecotoxicity: No specific aquatic toxicity data is currently available; however components of this product are not expected to be harmful to aquatic organisms
Persistence and Degradability: Components are readily biodegradable.
Bioaccumulative Potential: Bioaccumulation is not expected based on an assessment of the ingredients.
Mobility in Soil: No data available
Other Adverse Effects: None known

13 - Disposal Considerations

Aerosol containers should not be punctured, compacted in home trash compactors or incinerated. Empty containers may be disposed of through normal waste management options. Dispose of all waste product, absorbents, and other materials in accordance with applicable Federal, state and local regulations.

14 – Transportation Information

DOT Surface Shipping Description: UN1950, Aerosols, 2.1 Ltd. Qty
(Note: Shipping Papers are not required for Limited Quantities unless transported by air or vessel – each package must be marked with the Limited Quantity Mark)
Canadian TDG Classification: Limited Quantity
IMDG Shipping Description: UN1950, Aerosols, 2.1, LTD QTY
ICAO Shipping Description: UN1950, Aerosols, flammable, 2.1

Special precautions in connection with transport or conveyance either within or outside the premises: No data available

NOTE: WD-40 Company does not test aerosol cans to assure that they meet the pressure and other requirements for transport by air. We do not recommend that our aerosol products be transported by air.

15 – Regulatory Information

National Pollutant Release Inventory (NPRI): This product contains the following chemicals that are listed on the NPRI Substance List: LVP Aliphatic Hydrocarbon (64742-47-8) 45-50%, Aliphatic Hydrocarbon (64742-47-8) <25%

Canadian Environmental Protection Act: All of the ingredients are listed on the Canadian Domestic Substances List or exempt from notification.

California Safe Drinking Water and Toxic Enforcement Act (Proposition 65): This product does not require a California Proposition 65 warning.

WD-40 Specialist® products, WD-40® Multi-Use Products, and 3-IN-ONE® products do not require warnings against carcinogenicity, reproductive toxins, or germ cell mutagenicity

16 – Other Information

HMIS Hazard Rating:
Health – 1 (slight hazard), Fire Hazard – 4 (severe hazard), Physical Hazard – 0 (minimal hazard)

Revision Date: October 9, 2023 Supersedes: June 26, 2023

Prepared by: IHSC, LLC. Milford, CT, USA

Reviewed by: I. Kowalski Regulatory Affairs Dept.

4012200/No.0060608

Appendix E — Mental Health and Self-Care

Mental Health and Self-Care

PTSD, critical incident stress, and anxiety are mental health issues that can develop in a first aid attendant during the undertaking of their role.

Mental health and self-care are important aspects of the first aid attendant role.

Definitions

Post-traumatic stress disorder (PTSD)

People can endure a lot, but some experiences can be overwhelming. Post-traumatic stress disorder or PTSD is an illness that affects people who have experienced a traumatic event like a serious incident, sexual assault or other violent crime, natural disaster, or military combat. PTSD can also affect those who witness a traumatic event or learn that a family member or close friend experienced a traumatic event. PTSD is part of a group of mental illnesses called trauma- and stressor-related disorders. It used to be part of a group called anxiety disorders.

(Reference: Canadian Mental Health Association — BC Division)

Note: Families of victims can also develop PTSD, as can military personnel, emergency personnel, rescue workers, first responders, and journalists, to name a few.

Critical incident stress management

Critical incident stress management (CISM) is an effective approach because it empowers individuals, in the context of their workplace, to define and maintain their own and others' health through education, communication, and enhanced social support. The CISM approach allows individuals to verbally express stress reactions and share coping strategies after a traumatic incident.

While the evidence is still varied about whether the CISM approach prevents PTSD, it should be maintained in the workplace as part of a broader approach to health promotion. Debriefing also provides an opportunity to explore lessons learned and what could be done differently in the future. Organizations need to determine their own policies as to when CISM is mandatory and when it is voluntary. There should also be a distinction made between defusing and debriefing and when one or the other is appropriate.

CISM services are valuable in circumstances such as:

Death of a colleague in the line of duty

Hostage taking

Death or injury of any person during use of force in the conduct of duties

Witnessing another person being mutilated or dying

Being the victim of physical violence

Receipt by an employee of any serious threat to their physical well-being or that of their family

Having to work in an area where a critical incident is occurring, even though not directly exposed to this situation

Suicide of a colleague

Any incident where there is intensive or negative media coverage

Any other incident deemed critical by management in joint consultation with the workplace EAP coordinator (if available) and a critical incident mental health professional

(Reference: bcrespondersmentalhealth.com)

Anxiety

Feeling worried or nervous is a normal part of everyday life. Everyone frets or feels anxious from time to time. Mild to moderate anxiety can help you focus your attention, energy, and motivation. If anxiety is severe, you may have feelings of helplessness, confusion, and extreme worry that are out of proportion with the actual seriousness or likelihood of the feared event. Overwhelming anxiety that interferes with daily life is not normal. This type of anxiety may be a symptom of generalized anxiety disorder, or it may be a symptom of another problem, such as depression.

Anxiety can cause physical and emotional symptoms. A specific situation or fear can cause some or all of these symptoms for a short time. When the situation passes, the symptoms usually go away.

Physical symptoms of anxiety include:

Trembling, twitching, or shaking

Feeling of fullness in the throat or chest

Breathlessness or rapid heartbeat

Light-headedness or dizziness

Sweating or cold, clammy hands

Feeling jumpy

Muscle tension, aches, or soreness (myalgias)

Extreme tiredness

Sleep problems, such as the inability to fall asleep or stay asleep, early waking, or restlessness (not feeling rested when you wake up)

Restlessness, irritability, or feeling on edge or keyed up

Worrying too much

Fearing that something bad is going to happen; feeling doomed

Inability to concentrate; feeling like your mind goes blank

(Reference: HealthLink BC)

Signs of Stress

Physical

Shock

Palpitations

Jumpiness

Fatigue

Digestive or intestinal problems

Dizziness

Headache

Aches and pains

Emotional

Anxiety

Helplessness

Moodiness

Feeling overwhelmed

Anger

Hypersensitivity or insensitivity

Cognitive

Poor judgment

Trouble concentrating

Negative thinking

Behavioural

Irritable or short tempered

Sleep disturbances

Using alcohol or drugs to cope

Interpersonal

Withdrawal

Isolation

Increased dependence on others

Spiritual

Questioning life's purpose or meaning

Shifts in faith practices or rituals

Questioning of basic beliefs

Self-care

Pace yourself; strive for a work–life balance.

Make time for yourself.

Maintain your health:

- Get enough sleep.
- Eat properly.
- Be active.
- Use stress management and relaxation techniques.

Find support ahead of time from:

- A co-worker
- A supervisor
- A friend
- A peer "buddy" support system
- Social connections
- Family

Use humour

Recognize successes

If you find yourself experiencing stress or anxiety, reach out, talk to someone, and ask for support. You can also call the B.C. crisis and information line: 1.800.784.2433 (1.800.SUICIDE).

Appendix F — Secondary Survey

Secondary survey

The secondary survey is similar to the primary survey, except it's more detailed and takes longer.

A secondary survey is a thorough assessment of the patient. The purpose is to determine the full extent of the developing injury or illness, and to identify any other injuries or illnesses that may not have been previously discovered during the primary survey.

Vital signs are required if the worker is going to medical aid.

- Level of consciousness — (AVPU):
  - Alert
  - Verbal
  - Pain
  - Unresponsive
- Breathing — look, listen, and feel the breathing for 15 seconds and multiply by four (12–20 is normal):
  - Deep or shallow
  - Gaspy, laboured, or difficult
- Skin — colour — normal, pale, red, or blue:
  - Temperature — warm, hot, cool, or cold
  - Condition — wet, clammy, sweaty, or dry
- History:
  - What happened? (mechanism of injury), allergies, medications taken, medical problems, chief complaint(s), any pertinent medical history
- Head-to-toe examination:
  - Examine the injured worker's body or limb (if the worker only received trauma to part of a limb) more thoroughly, looking for signs of injury like bleeding, bruises, contusions, abrasions, burns, fractures, swelling, deformity, etc.
  - Is the treatment provided still effective? — e.g., is the bleeding still controlled with the bandage, or has the blood soaked through?
  - Are there any changes to the injured area?

Appendix G — Prescription and Non-Prescription Drugs and Medications

Prescription drugs and medications

Prescription drugs and medications can be obtained only with a prescription from a physician. Such prescriptions will be specific to a worker.

For the first aid treatment of a specific worker — e.g., for angina or diabetes — a letter from the prescribing physician must identify the following for the prescribed drug or medication:

The name of the worker to whom it is prescribed

Its specific use expiry date and storage

Possible and expected reactions to the medication

Possible complications or side effects

The dose and method of application

Non-prescription drugs and medications

Non-prescription products are those that may be purchased "over the counter" by any person.

An employer may choose to purchase non-prescription drugs or medications to address common ailments. The first aid attendant should have control over supplying the drugs or medications to the workforce. Several steps must be followed prior to supplying drugs or medications to a worker. The first aid attendant must:

Be familiar with the indications for use, contraindications, and side effects listed by the manufacturer of each drug or medication kept in stock. Of particular concern are drugs or medications that cause drowsiness or interfere with manual dexterity required by workers to perform their duties safely.

Check and strictly adhere to the expiry date of the drugs or medications.

Obtain a history of events that led up to the worker asking for relief.

Determine if the worker is currently taking any medication, and if so, the appropriateness of taking additional medication, with possible interactions.

Inform the worker of the side effects and contraindication (reasons why they should not take it) of the medication to be taken.

Make an entry in the first aid record.

Be familiar with the route of administration. Not all medications are taken orally.

Naloxone

The purpose of this first aid advisory is to provide information about the drug called naloxone and how the provision of naloxone may fit into an employer's workplace emergency response procedures. We recognize the significance of the opioid overdose crisis and understand that employers may want their first aid attendants to be able to respond to a suspected opioid overdose at the workplace. In October 2016, regulations under the *Health Professions Act* and the *Emergency Health Services Act* were amended to enable anyone to administer naloxone, regardless of the administration route. Naloxone is available over the counter without a prescription.

What is naloxone?

Naloxone is a medication that can reverse the effects of overdose from opioids, including fentanyl. It is a safe medicine with no abuse potential. Naloxone is an opioid antagonist, which means it ejects opioids from receptors in the brain, reversing the respiratory depression caused by an opioid overdose. The medication works within minutes to restore breathing, returning the person to consciousness.

Why use naloxone?

An opioid overdose is a very serious condition. It may cause death or severe brain, heart, or lung damage. Similar to using an epinephrine auto-injector for an allergic reaction, anyone can administer naloxone intramuscularly (into the arm or leg, with a syringe), or intranasally (spraying with an atomizer up the nose) with brief and basic training.

Are first aid attendants permitted to administer naloxone?

Yes, the provision of over-the-counter medications is within the scope of services that may be provided by first aid attendants. We recognize that this is a significant source. The following points are considerations for employers including the provision of the drug naloxone in emergency response procedures:

The first aid attendant must receive training to prepare the injection site and administer an intramuscular injection. This training could be the same training that a member of the public would receive to administer naloxone.

The employer has included the provision of this and any other over-the-counter medications supplied (e.g., epinephrine, acetylsalicylic acid) in the emergency response plan.

The employer has included the provision of first aid to members of the public in the emergency response and first aid procedures, and has considered the risks to the attendant of providing this service.

For more information about naloxone and opioid overdose, visit healthlinkbc.ca/healthlinkbc-files/naloxone and fentanylsafety.com.

Appendix H — Triage in Multiple Casualty Incidents

Triage in multiple casualty incidents

The first rule of triage is to do the greatest good for the greatest number. Sorting and prioritizing injuries and allocating limited resources requires skill, judgment, and experience. The first aid attendant must initiate a triage process, but responsibility for triage should be handed over to a more experienced person as soon as possible.

The following rules of triage apply:

1. Only immediately life-threatening conditions are identified and treated in the initial triage round.
2. Salvage of life takes precedence over salvage of limbs.

Sorting — START

START stands for Simple Triage And Rapid Treatment. Tag the patients using the following colour codes:

Green: minor injury, walking wounded

Yellow: delay, can wait

Red: immediate

Black: expectant or deceased

You need to sort the patients as quickly as possible. Ask anyone who can hear you and walk to come forward. Tag these people as green and get them to wait nearby. Some of these people may be able to help you assess and provide lifesaving interventions to the other patients.

Assessment

Using the primary survey and rapid transport criteria, move rapidly from one patient to another, identifying those who require immediate treatment and prioritizing patients for transport to hospital. Pause only to treat life-threatening conditions.

Use the acronym RPM when assessing triage patients:

R = Respiratory

P = Perfusion

M = Mental status