Skills for Work

Introduction to Basic First Aid

National 5

Support Material

Updated April 2023

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Disclaimer

Whilst every effort has been made to ensure the accuracy of this support pack, teachers and lecturers should satisfy themselves that the information passed to learners is accurate and in accordance with the current SQA unit specification.

Contents

Introduction

These notes are provided to support teachers and lecturers presenting the National 5 unit Introduction to Basic First Aid (J54S 75), to enable those working with children and young people to administer basic first aid to treat falls, bumps, cuts, grazes and nosebleeds.

Further information regarding the Skills for Work: Early Education and Childcare course including unit specifications, assessment support materials (ASPs), centre approval and certification can be obtained from:

The Scottish Qualifications Authority
Optima Building
58 Robertson Street
Glasgow
G2 8DQ

www.sqa.org.uk

Early Learning and Childcare web pages

How to use this pack

The *Introduction to Basic First Aid* unit at National 5 is an optional unit in the Skills for Work Early Learning and Childcare course but is also designed for learners who wish to study the unit on its own.

This unit is suitable for learners who may be considering employment, or may already be employed, in the early learning and childcare sector or who wish to progress to further Early Learning and Childcare qualifications.

The National 5 unit is an introductory unit that allows learners to develop basic first aid knowledge and skills that may be needed to support casualties who are injured or who suffer minor medical conditions — including how to get appropriate medical assistance. Learners will develop their understanding of the current first aid procedures by following the procedures set out in the Health and Safety Executive guidelines. This will ensure that they can support decision making and take prompt and effective action to assess a casualty and then get help, as required.

This pack is intended as a guide and an aid to delivery of the unit. It aims to provide centres with a flexible set of materials and activities that can be selected, adapted, and used in whatever way suits individual circumstances. It may also be a useful supplement to tried and tested materials that you have developed yourself.

The pack is divided into the following sections:

Introduction

Introduction to Basic First Aid — Outcomes 1 and 2

Outcome 1 — Describe the management of first aid incidents in accordance with current Health and Safety Executive guidelines.
Outcome 2 — Support the provision of first aid of minor injuries and medical conditions in accordance with current Health and Safety Executive guidelines.

Delivery support section

Advice on delivery and generating evidence
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Employability skills
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Delivery notes

Learner support section

Learner notes
Learner activities

National 5: Introduction to Basic First Aid

Outcomes

On successful completion of the unit, the learner will be able to:

1 Describe the management of first aid incidents in accordance with current Health and Safety Executive guidelines.
2 Support the provision of first aid of minor injuries and medical conditions in accordance with current Health and Safety Executive guidelines.

Evidence requirements

National 5: Introduction to Basic First Aid

Outcome 1

Learners must describe the initial assessment process when dealing with an incident.

Learners must describe measures required to ensure safety of the casualty, the first aider and others at risk.

Learners must describe the process of assessing treatment priorities.

Learners must describe the processes of summoning assistance and passing on information.

Outcome 2

Learners must demonstrate the provision of first aid to a casualty with a minor injury.

Learners must demonstrate the provision of first aid to a casualty with a minor medical condition.

Learners must demonstrate how to get help when necessary.

Evidence is required to demonstrate that learners have achieved all outcomes and performance criteria.

Delivery support section

Advice on delivery and generating evidence

The National 5 unit raises awareness of the knowledge and skills required to support assessment of casualties who are either injured or suffer from a medical condition, including how to call appropriate medical assistance, first aiders, or emergency services.

Learners will learn about the assessment, management and treatment of a variety of minor injuries and conditions. Teacher/lecturer-led activities will increase the learner's awareness and understanding of the techniques, equipment, dressings and bandages needed in the treatment of these minor injuries and conditions.

It is important to recognise that some learners may not have had the opportunity of administering basic first aid. It may be of benefit to learners to undertake some practical first aid exercises to enhance their understanding of the processes involved.

These practical first aid experiences will be supplemented by teaching/learning activities to establish the first aid priorities within the care sector. Teacher/lecturer-led activities will increase the learner's awareness and understanding on the assessment, management and treatment of incidents. They will also learn how to support the assessment of a casualty. This could cover primary and secondary surveys and physical examination of a casualty.

The objectives of the unit are that the learners will:

- learn about first aid priorities and responsibilities — for example airways and breathing and circulation
- learn about safety including prevention of infection; making the area safe; and safety of self, casualties and others
- be able to describe the need for necessary assistance; help from people at the incident, a first aider, and/or from the emergency services; and the process of making an emergency telephone call and passing on information to include a brief description of any injuries and first aid given
- learn about burns and scalds, including minor burns to the hand and foot
- learn about wounds and bleeding, including nosebleeds, cuts, grazes, bruises, small splinters and a foreign object in a cut
- learn about bone, joint and muscle injuries such as sprains and fractures, including a fractured collar bone, or fractured bone in the upper arm
- learn about poisoning
- learn about bites and stings
- be able to describe the signs of anaphylaxis
- be able to describe the signs, symptoms and procedures for checking meningitis, including in children
- be able to describe the signs of asthma

Experiential learning

Throughout the delivery of this unit, emphasis will be on learning current theory and practical procedures in line with the Health and Safety Executive guidelines. A variety of methods should be employed to integrate theoretical knowledge with developing skills: taking part in practical basic first aid exercises and role play, working together in group investigations and sharing in the evaluation of case studies. It is important to recognise that some learners may not have had any prior experience of first aid or in the management of incidents — as part of the delivery they should participate in workshops or real settings to ensure they understand what it means to assess, manage and treat minor injuries and conditions. They will have the opportunity to discuss the management of first aid incidents and the provision of basic first aid of minor injuries and medical conditions and be given guidance in how these experiences contribute to the development of basic first aid skills.

As some learners will have had limited experience of first aid, film and video can be used to enable them to observe assessment, management and treatment of minor injuries and medical conditions.

The lecturer will provide a varied range of experiences, encourage discussion to enable learners to link theory to practice, and provide notes that reinforce key points in the assessment and management of incidents and in the treatment of minor injuries and medical conditions. Visits to care and emergency services settings can also be arranged. Where possible, learners should be involved in arranging these visits.

Employability skills

In this unit, learners will have the opportunity to develop skills in:

- working co-operatively with others
- health and safety awareness
- decision-making

Through teaching and learning, the unit provides an opportunity to raise awareness of the importance of:

- assessing and managing incidents
- awareness of the treatment of minor injuries and conditions
- communicating appropriately
- demonstrating a responsible attitude in all aspects of health and safety to themselves, the casualty and others

Introduction to Basic First Aid

National 5 Outcome 1

Teacher/lecturer-led activities should provide knowledge and skills to manage a variety of incidents involving casualties requiring first aid. Learners should develop an awareness of a speedy assessment of a situation, and of the safety requirements in relation to casualties, themselves and others. In discussions and other teaching/learning activities, learners should consider the following:

- the role and responsibilities of a first aider
- safety issues, including infection control

Learners should be encouraged to consider the correct actions to undertake and the significance of these actions. Learners should consider the different types of actions at an emergency:

- Why is important to assess a situation?
- Why is it a requirement to ensure that the area where the situation occurred is safe?
- How would you manage single and multiple casualties?
- Why is it important to check the casualty/casualties?
- Why is it important to gain assistance from others, including emergency services?
- Why is it a requirement to ensure information is passed on correctly?

Through workshops sessions or visits learners should, for example, observe and experience specific situations such as road traffic accidents or water rescue. Learners should be given the opportunity to be involved in the assessment of primary and secondary assessments and the examination of a casualty involved in an incident. The learner should use this opportunity to examine how theory can be applied to practice in line with the Health and Safety Executive guidelines.

National 5 Outcome 2

Teacher/lecturer-led activities should cover knowledge and skills to support the management and treatment of a variety of minor injuries and conditions.

Learners will develop an awareness of the knowledge and skills needed to support the management and treatment of a variety of minor injuries and conditions. This outcome will provide learners with some practical skills required to support the provision of basic first aid — assessment, management and treatment of a variety of minor injuries and conditions that are specified in the Health and Safety Executive guidelines.

Learners should be aware that the provision of basic first aid will include the assessment, management and treatment of injuries and conditions specified in the statement of standards.

Bandaging and dressing techniques should be integrated into the first aid process for each injury. The correct use and practice of the recovery position can be covered. Learners can

be made aware of procedures for monitoring vital signs, including levels of responsiveness, pulse, breathing and temperature.

Learners may have the opportunity to learn about the provision of basic first aid — the assessment, management and treatment of more serious injuries and medical conditions is not part of the assessment for the unit.

Examples include:

- an unresponsive casualty, possibly requiring cardiopulmonary resuscitation (CPR)
- respiratory problems, including choking in infants, children and adults
- asthma
- disorders of consciousness, including fainting and seizures
- a casualty who is in shock

Suggested topics

For each of these suggested topics, this pack contains delivery notes, learner activities and learner notes.

Topic	Content	Unit
Topic 1	Introduction to basic first aid What is 'The Health and Safety Executive'? First aid at work Understanding of what is meant by first aid Importance of first aid training and first aiders Aims and objectives of first aid	N5
Topic 2	Recap First aid priorities What are first aid priorities Aims of first aid: to preserve life; limit worsening conditions; promote recovery The 4Ps Infection control Primary survey Secondary survey	N5
Topic 3	Recap Priorities of treatment Advice for first aiders	N5
Topic 4	Recap Assessing levels of response Recovery position Head injuries Strokes	N5

Topic	Content	Unit
Topic 5	Recap First aid conditions: anaphylaxis; asthma, drowning, choking Circulation problems	N5
Topic 6	Recap Bleeding, burns and bones Wounds and bleeding Internal bleeding Burns and scalds Injuries to bone, muscles and joints Strains and sprains	N5
Topic 7	Recap Injuries and conditions: hypothermia; frostbite; trench foot; chilblains; heat stroke; epilepsy and seizures Bites and stings Anaphylactic shock Poisons Meningitis	N5
Topic 8	Recap Employability skills	N5

Delivery notes

Delivery notes topic 1: introduction to basic first aid

In this lesson, you will introduce learners to the current first aid procedures set out in the Health and Safety Executive guidelines.

You will support learners to develop their understanding of basic first aid to build knowledge and skills that may be needed to support casualties who are injured or have minor medical conditions.

Learners should be supported to consider the importance of decision making and in taking prompt and effective action to assess a casualty and then to get help, as required.

Introduction to basic first aid activity 1

Ask the learners to consider what the following questions have to do with first aid.

- Have you ever made a cup of tea?
- Have you ever crossed the road?

After learners have individually recorded their answers, ask them to share their ideas in small groups.

Groups can feed their discussions back to the class.

Feedback should include common responses and the ways in which these scenarios are related to first aid.

You could finish this activity by asking the learners to consider what they have done today that could cause injury?

Introduction to basic first aid activity 2

Ask the learners to think about what the Health and Safety Executive is and to watch the video clip ‘The Health and Safety Executive Story'.

https://youtu.be/FZO8R9giCf0 (hse.gov.uk)

After watching the video clip, ask learners to read the ‘Health and Safety Law What you need to know’ poster.

law.pdf (hse.gov.uk) (hse.gov.uk)

You may at this point give a summary of current theory on the role and responsibilities of the employer in accordance with ‘The Health and Safety (First-Aid) Regulations 1981’.

Introduction to basic first aid activity 3

Ask the learners to look at the 'First aid – First aid at work' web page at https://www.hse.gov.uk/firstaid/index.htm and to record information on first aid at work.

- What is first aid?
- Why is first aid training important?
- What are the aims and objectives of first aid training?

It is helpful for learners to understand the importance of having a qualified first aider within the workplace, and to be aware that the first aider should always be called when there is an accident or emergency.

Ask learners to look at this NHS First Aid web page: https://www.nhs.uk/conditions/first-aid/ Working in small groups, the learners should record information on common accidents and emergencies and on what to do if someone is:

- injured but conscious
- unconscious and breathing
- unconscious and not breathing

Groups can feed their discussion back to the class. Feedback should include information on:

- what to do if someone is injured
- common accidents and emergencies

A summary of the feedback could be made on a chart.

Introduction to basic first aid activity 4

To support learners with developing their understanding, use case studies of first aiders as a class discussion.

Discussion

Ask learners to consider the case studies in relation the following scenarios and questions:

- What should you do if someone is injured? Is it better to do nothing and to wait for an ambulance?
- If you needed first aid, would you want someone to help you?
- Is helping a stranger dangerous?
- Is first aid complicated? Can you be sued for getting it wrong?
- How do you know if you will ever need to use first aid?

A summary of the feedback can be made on a chart.

Finish this topic with a recap on current theory and practical procedures in line with the Health and Safety Executive guidelines.

Delivery notes topic 2: first aid priorities

First aid priorities activity 1

Provide a summary of the previous lesson on understanding what is meant by first aid and the importance of first aid training and first aiders.

Ask learners to think about the following questions:

- What is first aid?
- Why first aid training is important?
- Who is the most important person at the scene of an accident?
- How should we act and behave before we even get to treatment?
- What would you do if you were out and came across a first aid situation?
- What would be the first aid priorities?

Learners should individually record this information.

Groups can feed their discussion back to the class.

Use the learner feedback to introduce the aims and objectives of first aid:

- To understand your own abilities and limitations
- To stay calm and always stay safe
- To assess a situation quickly and calmly and summon help if necessary
- To assist the casualty and provide the necessary treatment, with the help of other if possible
- To pass on relevant information to the emergency services
- To be aware of your own needs

At this point you could give a summary of the theories on the role and responsibilities of the first aider, emphasising points in current thinking and why it is essential to understand the difference between the learner's awareness of basic first aid and the knowledge and skills of a qualified first aider.

First aid priorities activity 2

This activity introduces learners to the first aid priorities: how to prepare yourself to respond to an emergency and summoning appropriate help.

Ask the learners to think about how we should act and behave before we even get to treatment.

Discussion should include:

- What do you think we should do if we were out and about and came across a first aid situation?
- What are the first aid priorities?

Introduce the first aid priorities and the aims of first aid.

The first aid priorities include:

- Assess the situation — quickly and calmly
- Protect yourself — and any casualties
- Prevent cross-infection — between yourself and the casualty or casualties (as far as possible)
- Comfort and reassure the casualty or casualties
- Assess the casualty or casualties
- Give early treatment
- Arrange for appropriate help

The aims of first aid include:

- To preserve life
- To limit the worsening of condition
- To promote recovery

Emphasise the significance of taking care to keep everyone involved safe.

Ask the learners to think about the ways in which they would try to stay calm. They should record their responses then share them with the class.

At this point you could give a summary of ways to keep calm, emphasising points in current thinking. For example, taking slow breaths and drawing on a knowledge of first aid priorities such as A-B-C:

- **A — Airways**
- **B — Breathing**
- **C — Circulation**

You should introduce the learners to the **4 Ps:**

- **Promote a safe environment**
- **Preserve life**
- **Prevent injury or illness becoming worse**
- **Provide reassurance**

Emphasise the significance of conveying confidence and promoting trust.

To support the learners understanding of first aid priorities, ask them to think about why each priority is important.

Learners should record their responses and share them with the class. You should use a chart to record their feedback.

First aid priorities activity 3

Infection control

Divide the class into small groups.

Ask learners to discuss infection control in relation to first aid. Discussion should include:

- What infections might you pick up?

Learners should record possible infections.

You may at this point give a summary of the theories on infection control and the infections you might pick up including:

- Human immunodeficiency virus (HIV)
- Hepatitis B
- Hepatitis C
- Methicillin-resistant Staphylococcus aureus (MRSA)
- Clostridium difficile (C. diff)
- Herpes simplex
- Colds, flu, diarrhoea

Discussion should include:

- How can you prevent infection?

Learners should record their ideas and share them with the class.

You could use a chart to provide suggestions on methods to prevent infection control:

- Hand washing
- Covering cuts with a waterproof dressing
- Wearing disposable gloves and aprons
- Asking casualty to dress their own wound
- Not touching the wound
- Not breathing or sneezing over the casualty
- Being careful not to cut yourself on a needle or piece of glass when assisting the casualty

A qualified first aider or medical professional would:

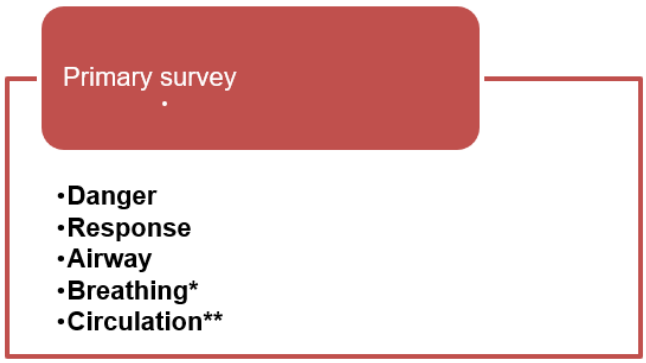
- use a face shield or pocket mask when performing CPR and dispose of gloves, aprons and dressings correctly after treating the casualty
- use a biohazard bag (yellow bag) or ‘double-bag’
- place needles and sharp objects in a sharps’ container

First aid priorities activity 4

Primary survey

Ask learners to record information on what they think a primary survey is.

You should explain to the learners that a primary survey is the process of checking for life-threatening conditions or injuries. It consists of the following:



*If not responsive and not breathing, start cardiopulmonary resuscitation (CPR)
**Control loss of blood (if casualty is breathing)

You may at this point give a summary of the theories on primary surveys emphasising points in current thinking including:

- Assess the situation
- Access to the casualty
- Dial 999
- Begin chest compressions (if required)
- Begin rescue breathing (if required)
- Continue CPR (if required)

Divide the class into small groups.

Ask learners to discuss what needs to be considered when assessing a situation.

Discussion should include:

- Are there any risks to you or the casualty?
- How would you check for danger?
- What should you do if you cannot deal with the casualty safely? (Don’t approach and phone for help)
- When is it safe to approach to assess the casualty?

Groups should share feedback with the class.

You should use a chart to record information.

Explain to the learners that they should consider the following when assessing a casualty:

- Check response
  - Speak to the casualty. Say ‘Hello, can you hear me?’ in both ears
  - Shake their shoulders gently at the same time
  - Speech — Is their response to the question and the situation normal? Are they confused? Are they using inappropriate language? Making weird sounds? Is there no response?
  - Eyes — are they open? Do they open if you ask them to open them? Do they open in response to pain (for example if you nipped them)? Do they stay closed?
  - Movement — Do they move if you ask them? Do they move when they feel pain? Do they make no response?

If the casualty is responsive: treat them and dial 999 as necessary.
If the casualty is not responsive — dial 999 and shout for help.

The learner must be aware of what they can do, and what they would expect a qualified first aider or medical professional to do, in this situation.

- Check airways
  - Open mouth and check for anything that may cause an obstruction
  - Tilt the head back and ‘Open the airway’

- Check breathing
  - Look, feel and listen for breathing for 10 seconds
  - If the casualty is breathing place in the ‘recovery position’ and call the emergency services
  - If not, call the emergency services and start compressions

- Compressions
  - Place two hands in the centre of the chest
  - Use two hands
  - Depress the chest by one-third
  - Give 30 chest compressions at a rate of 100 per minute

- Rescue breathing

With the airway open:

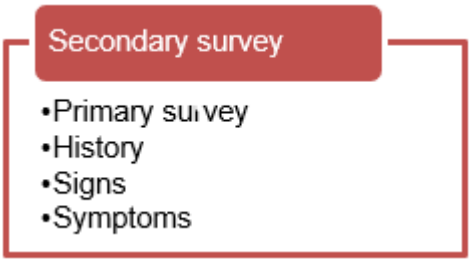
  - Give **two** rescue breaths

- Continue CPR and use an automated external defibrillator (AED)
- Repeat the process until help arrives

Ask learners to watch the video clip ‘How to do the Primary Survey – First Aid Training’ by St John’s Ambulance’ on YouTube.

First aid priorities activity 5

What is the secondary survey?



Divide the class into small groups.

Ask the learners to discuss what they think a secondary survey is.

- How would you perform this procedure?

Ask learners to share feedback with the rest of the class.

Use a chart to record information from the discussion. For example:

- Taking a history — medical and event
- Physical examination of casualty. How would you carry this out? What signs and symptoms would you look for?
- Look for clues such as an inhaler or ID bracelet

Explain to the learners what the secondary survey is.

Injury to	**What to check**
Head	Check the skull carefully running your hands over the scalp to feel for bleeding, swelling or a depression. Handle the casualty very carefully especially if you suspect a neck injury or the person is unconscious.
Ears	Speak clearly to the person in both ears to see if they respond. Check for bleeding and/or clear liquid coming from the ear.
Eyes	Examine both eyes and check for size of pupils and whether they respond to light. Look for foreign bodies, blood or bruising.
Nose	Check nose for blood and/or straw-coloured liquid.
Mouth	Note the rate, depth and nature of breathing. Note the odour of the breath. Check the airway is clear and the mouth and lips for signs of burning.
Skin	Check the face for colour (flushed, pale or blue), temperature (hot or cold) and state (dry or damp).
Neck	Loosen clothing and check for a warning medallion or stoma. Check the spine from the skull as far down as possible without disturbing the casualty's position.

Injury to	What to check
Ribcage	Ask the casualty to breathe deeply and note whether the chest expands evenly. Check the ribcage for irregularities and note any breathing difficulties and/or injuries.
Collar bone	Gently feel the collar bones and shoulders using both hands to compare the two sides.
Arms	Check both arms from shoulder to fingers for irregularity and injury. Note the colour of the skin, any needle marks and look out for a warning bracelet.
Spine	Using the body's natural hollows you can gently pass your hand under the back to feel along the spine.
Stomach	Gently feel the front of the abdomen.
Hips	Feel both sides of the hips and gently squeeze the pelvis. Note any incontinence or bleeding.
Legs	Ask the casualty to move each leg in turn and check for movement in all the joints.
Toes	Check the colour and movement of all toes.

Explain to the learners the procedures for requesting emergency services.

When calling 999, provide the following information:

- Your telephone number
- Your name
- Service required
- Exact location
- The type and seriousness of incident
- Additional information
  - The number, sex and approximate age of casualty and anything you know about their condition
  - Any information about additional hazards such as petrol spillage or other hazardous substances

Ask learners to create a flow chart of the secondary survey.

Ask the learners to use the How to do the secondary survey - Emergency First Aid | St John Ambulance (sja.org.uk). (sja.org.uk) to help them complete the activity.

Delivery notes topic 3: priorities of treatment

You should provide a summary of the previous lesson on the 4Ps, primary and secondary survey.

In this lesson, you will introduce learners to monitoring of vital signs:

- Level of response/consciousness
- Breathing
- Pulse
- Body temperature

The lecturer should encourage learners to draw on prior learning.

Discussion could include:

- Basic first aid
- Qualified first aiders
- Primary survey
- Secondary survey

Priorities of treatment activity 1

Ask the learners to look at the 'What to do if someone is unresponsive' and 'What to do if your baby is unresponsive' posters from St John Ambulance.

Ask the learners to create their own step-by-step poster of the recovery position.

Priorities of treatment activity 6

Advice for first aiders

Provide a first aid incident to each learner.

Ask learners to create a leaflet based on the management of the first aid incident. It should include:

- the risks to the first aider and others
- how to keep yourself safe while attending a first aid incident

Learners can use the following websites to help them complete the poster or leaflet:

- https://www.gov.uk/government/publications/novel-coronavirus-2019-ncov-interim-guidance-for-first-responders/interim-guidance-for-first-responders-and-others-in-close-contact-with-symptomatic-people-with-potential-2019-ncov
- https://www.redcross.org.uk/first-aid/learn-first-aid/covid-19-guidance
- https://www.sja.org.uk/get-advice/first-aid-advice/covid-19-advice-for-first-aiders/

Priorities of treatment activity 7

Ask the learners the following questions:

- How would you prioritise casualties?
- How would you use the secondary survey to prioritise treatment?

Ask learners to record their responses.

Feedback can be used as a discussion.

You could suggest the following scenarios to encourage discussion.

What if a casualty:

- is quiet
- is making a lot of noise
- is breathing
- is bleeding
- has been burnt
- has broken bones?

Ask learners, what does ‘unconscious’ mean?

Learners should record their responses.

You should then explain what ‘unconscious’ means in the context of an injured casualty and explain how the state of unconsciousness can endanger a person’s life. For example:

- Unlike sleep, it can disable the body’s natural reflexes such as coughing
- If laying on their back, the tongue may fall back blocking the airway, or if they vomit, they may inhale this (aspiration)

Priorities of treatment activity 8

Ask learners to complete the words relating to the main causes of unconsciousness.

F_ _ _ _ _ _ _

I _ _ _ _ _ _ _ B _ _ _ _ _ _ _

S _ _ _ _

H _ _ _ I _ _ _ _ _

S _ _ _ _ _

H _ _ _ _ A_ _ _ _ _

A _ _ _ _ _ _ _

P _ _ _ _ _ _ _ _

E _ _ _ _ _ _ _ _

D _ _ _ _ _ _ _

Answers:

Fainting
Internal bleeding
Shock
Head injury
Stroke
Heart attack
Asphyxia
Poisoning
Epilepsy
Diabetes

Ask learners to record their answers and feedback to the class.

Delivery notes topic 4: assessing levels of response

Assessing levels of response activity 1

Alert	Fully alert, responsive and fully orientated
Voice	Confused, inappropriate words, utters sounds
Pain	Identifies pain or responds to pain but unable to locate
Unresponsive	Unresponsive to pain and voice stimuli

Ask learners what action should be taken when treating an unconscious casualty. They could use their notes on primary and secondary surveys to support their answers.

Ask what they need to consider before moving a casualty.

You could suggest the following points when considering the mechanics of an injury:

- It is important to consider what has happened and what has caused the injury
- It is important to ask for assistance if you suspect a neck injury. Keep the head in line with the body
- It is important when using the recovery position, to ensure that any suspected injuries are not moved

Assessing levels of response activity 2 — practical session

You should explain to the learners how to place a casualty into the recovery position. This position is the same for both adults and children, but babies cannot be put in this position.

Remember:

- **Never** place anything in an unconscious casualty's mouth
- **Never** place a pillow under the head while the casualty is on their back
- **Never** move a casualty without checking them first
- **Never** move the casualty unnecessarily

Ask learners to read the learner's note on the recovery position and to look at:

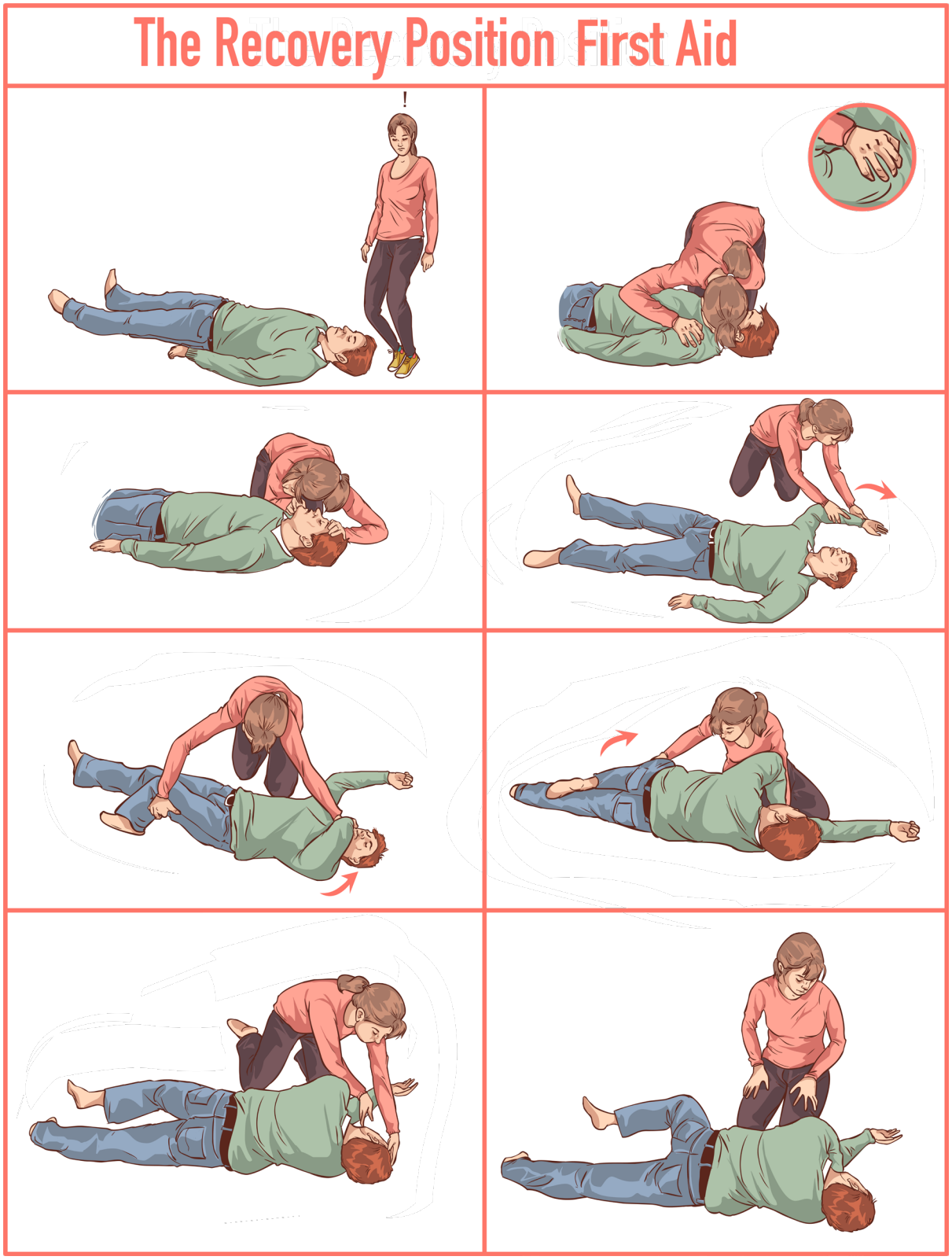
Unresponsive Casualty - CPR & Recovery Position | St John Ambulance (sja.org.uk)

Recovery position

Ask learners to go into small groups and to take turns placing each other into the recovery position.

You should go round each group and check that they are following the correct procedure.

Learners should complete the observation checklist.


The Recovery Position First Aid

Observation checklist

Name:

Date:

Steps	Practice notes
1 Kneel beside the casualty.	
2 Straighten the casualty's arms and legs.	
3 Fold the arm closest to you over the casualty's chest.	
4 Place the other arm at a right angle to the casualty's body.	
5 Bend the leg closest to you.	
6 Support the casualty's head and neck, gently take the bent knee closest and gently roll the casualty away from you. Adjust the upper leg, so both the hip and knee are bent at right angles. Make sure the casualty cannot roll.	
7 Tilt the head back and make sure the airways are clear and open.	

Ask learners to hand in the completed observation checklist.

Assessing levels of response activity 3

Head injuries

Explain to the learners about serious head injuries.

Ask what three main conditions may be present with head injuries.

Ask learners to feedback to the class.

Possible suggestions include:

- concussion
- compression
- fractured skull

Divide the class into groups.

Allocate a head injury for each group to investigate.

Ask the learners to refer to the student notes on concussion, compression and fractured skull and to use books in the classroom or to look at the website link:

Head Injuries in Adults, Babies & Children | St John Ambulance (sja.org.uk).

Ask learners to create a PowerPoint Presentation.

Advise the learners to use the questions below to help with their investigation:

Group 1

- What is concussion?
- What are the signs and symptoms of concussion?
- How do you treat concussion?

Group 2

- What is compression?
- What are the signs and symptoms of compression?
- How do you treat compression?

Group 3

- What is a fractured skull injury?
- What is the treatment of a serious head injury?

Ask the learners to present their presentations to the class.

Assessing levels of response activity 4

Strokes

You may at this point give a summary of the theories on strokes emphasising points in current thinking.

Ask the learners to investigate strokes and to create a mind map, leaflet or poster.

Learners should use the learner's notes, classroom books or the website link:

Stroke - Warning Signs & First Aid Advice | St John Ambulance (sja.org.uk)

Possible questions the learners should use to investigate strokes:

- What is a stroke?
- What are the signs and symptoms of a stroke?
- How would you treat a stroke?
- How would you recognise a stroke?

Delivery notes topic 5: first aid conditions

Start the lesson with a recap on the aims of first aid and first aid priorities:

Aims of first aid:

- Protect
- Preserve life
- Prevent the situation from worsening
- Promote recovery

First aid priorities:

- Assess the situation
- Make the area safe
- Assess all casualties
- Give emergency first aid
- Get help

You should then explain to the class that this topic will look at first aid conditions.

First aid conditions activity 1

Airways and breathing problems

Ask the class to think of conditions that can cause airway and breathing problems:

Possible answers could include:

- Anaphylaxis
- Asthma
- Drowning
- Choking

Divide the class into groups.

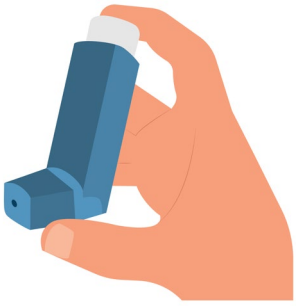
Allocate an airway and breathing condition to each group.

Ask learners to create a PowerPoint presentation.

Advise the learners to use the questions below to help with their investigation:

Group 1 — Anaphylaxis
1 What is anaphylaxis?
2 What are the effects of histamines?
3 What are the signs and symptoms of anaphylaxis?
4 How would you treat anaphylaxis?

Group 2 — Asthma
1 What is asthma?
2 What are the signs and symptoms of asthma?
3 How would you treat asthma?



Group 3 — Drowning
1 What is drowning?
2 What is secondary drowning?
3 What is the treatment for drowning?

Group 4 — Choking
1 What is choking?
2 What are the signs and symptoms of choking?
3 How would you treat an adult that is choking?
4 How would you treat an infant that is choking?

Ask the learners to use the learner notes, classroom books or the website links to help them with their answers:

Choking First Aid - First Aid Advice | St John Ambulance (sja.org.uk)

Breathing Difficulties - First Aid Advice | St John Ambulance (sja.org.uk)

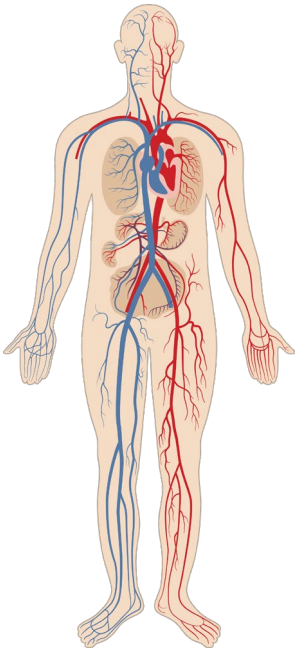
Heart Conditions - Heart Attacks & Cardiac Arrest | St John Ambulance (sja.org.uk)

Hot & Cold Impacts - First Aid Advice | St John Ambulance (sja.org.uk)

Learners should be asked to present their PowerPoints.

First aid conditions activity 2

Circulation problems



Explain to the learners about the circulation system.

Points to be included:

- Circulatory system
- Arteries
- Capillaries
- Veins
- The pulse
- Pulse points
- How to check the pulse
- Normal resting heart rates

Ask the class to think of conditions that can be caused by circulation problems. Possible answers could include:

- Angina
- Heart attack
- Shock
- Fainting

Divide the class into groups and allocate a circulation problem to each group.

Ask each group of learners to investigate the condition they have been given by answering the following questions:

Group 1 — Angina

1 What is angina?
2 What are the signs and symptoms of angina?
3 How would you treat angina?

Group 2 — Heart attack

1 What is a heart attack?
2 What are the signs and symptoms of a heart attack?
3 How would you treat a heart attack?

Group 3 — Shock

1 What is shock?
2 What are the signs and symptoms of shock?
3 What is the treatment of shock?

Group 4 — Fainting

1 What is fainting?
2 What are the signs and symptoms of fainting?
3 How would you treat fainting?

Ask the learners to use the learner notes, classroom books or the website links to help them with their answers.

Create a mind map.

Delivery notes topic 6: bleeding, burns and bones

Bleeding, burns and bones activity 1

Wounds and bleeding

Start the lesson by asking the learners to think of how much blood we have.

Tell the learners that the amount of blood we have varies according to body size:

- The average adult has between 8 to 12 pints of blood
- Children have less blood
- Babies have around 1 pint of blood

You have approximately one pint of blood for every stone in body weight.

Ask the learners to think about the different types of internal and external bleeding.

Suggestions could include:

- Arterial
- Venous
- Capillary

Ask learners to think about what the possible effects of blood loss are.

Suggestions could include:

- Loss of consciousness
- Pale skin
- Weak pulse
- Rapid breathing

You should at this point explain to the learners how to stop bleeding.

- As the casualty to sit or lie down
- Examine the wound
- Apply pressure to the wound
- If a limb is bleeding, try to elevate it
- Be aware of the need for hygiene when treating wounds — dressings

Ask the learners to think about the types of wounds.

Learners should feedback to the class. Suggestions could include:

- Puncture (a stabbing wound)
- Gun shot

- Amputation
- De-gloved

Learners should record information.

Ask learners to think about other incidents or accidents that can cause bleeding. For example:

- Cuts
- Grazes
- Bruises
- Splinters
- Foreign objects
- Nose bleeds

Explain to the class how these can be treated.

Cuts and grazes

A cut is when the skin is broken, and a graze is when the top layers of skin have been scraped away.

Treatment for a cut

- Elevate the injured limb higher than the heart
- Clean around the wound, wiping away from the wound
- Pat dry and apply a sterile dressing or plaster
- Dial 999 for an ambulance if the wound does not stop bleeding, has a foreign body embedded or is a result of an animal bite

Treatment for a graze

- Clean the wound with water or use sterile wipes
- Pat dry and cover wound with gauze, clean cloth or plaster

Bruises

A bruise occurs as a result of a blow or impact rupturing underlying blood vessels.

Signs and symptoms

- The skin around the affected area may appear discoloured

Treatment

- Raise and support the injured part into a comfortable position
- Hold an ice pack on to the affected area to reduce swelling

Splinters

Splinters are objects that become embedded under the skin. Most often these are tiny pieces of wood but can also be glass, metal, or plastic.

Signs and symptoms

- A small speck or line that you can see under the skin
- A feeling that something is stuck under the skin
- Pain from the affected area
- Affected area may appear red or pinkish, swollen, warm to the touch or may shows signs of infection (greenish pus)

Treatment

- Clean the area around the splinter
- Use sterilised tweezers to grasp the splinter, draw the splinter out in a straight line
- Once removed, gently squeeze the area to encourage slight bleeding as this will help to remove any dirt left by the splinter
- Clean and dry the wound and cover with a dressing if required

Foreign object

The nose

The natural curiosity of young children may cause them to put small objects in their noses or ears when playing or copying another child. If a foreign object like cotton wool, a bead or an insect becomes lodged in the ear it can cause a blockage which can result in temporary deafness. If a foreign object like a ‘button’ battery becomes lodged in the nose, it can cause bleeding or burns.

Treatment

If you suspect a baby or child has an object lodged in their ear or nose, do not try to remove it as this may push the object in further.

- Dial 999 or call 112 for help
- Keep the casualty calm

The ear

This is a relatively common occurrence in toddlers and children. In most cases a child will place an object inside the ear which becomes lodged in the ear canal. Occurrences are not usually serious. However, insects are also known to crawl into the ear during sleep.

Signs and symptoms

- A feeling of something is inside the ear
- Pain
- Irritation

- Nausea
- Bleeding
- Buzzing sound (if the object is an insect)

Treatment

If you suspect there is an insect inside the ear:

- Support the casualty's head with the affected ear facing upwards
- Gently poor tepid water into the ear so that the insect floats out
- If flooding the ear does not remove the insect, call 112 to ask for advice

The eye

Foreign objects in the eye are usually caused by grit or loose eyelashes. These objects normally lie on the surface of the eye and can be rinsed out with water. Other foreign objects such as metal or glass can penetrate the eye and become embedded.

Signs and symptoms

- Pain in the eye
- Redness and watering of the eye
- A visible wound
- Blurred, partial of total loss of vision

Treatment

- Advise casualty not to rub the eye
- Ask casualty to sit down facing a light
- Gently open the eyelid so that you can look at the eye
- If a foreign object can be seen, tilt head backwards and bath the eye in clean water
- If the foreign body is still visible, use a moist piece of gauze or clean tissue to remove
- If the object does not look easy to remove dial 112 and ask for emergency help

Nosebleeds

Nosebleeds are the result of the blood vessels inside the nostrils rupturing. Nosebleeds can occur when the nose is hit or when sneezing, picking or blowing the nose. Nosebleeds can also be caused by medical conditions such as high blood pressure or anti-clotting medication.

Treatment

- Ask casualty to use a clean tissue to catch the blood
- Ask casualty to sit down and lean their head forward
- Advise casualty to breathe through mouth and to pinch the soft part of their nose for up to 10 minutes

- If the nose is still bleeding, repeat nose pinching for a further 10 minutes
- Once the nose has stopped bleeding, ask casualty to remain in a leaning-forward position
- Clean the area around the nose with tepid water
- If bleeding persists, dial 999 or 112 for emergency help

Bleeding, burns and bones activity 2

Internal bleeding

What is internal bleeding?

Learners should find out about the signs and symptoms of internal bleeding.

Encourage the learners to use the learner notes, classroom books or the internet.

Ask them to feedback to the class.

Information should be recorded on a chart.

Explain to the class how internal bleeding should be treated:

- Dial 999 for an ambulance
- Treat the casualty for shock

Bleeding, burns and bones activity 3

Burns and scalds

Discussion:

Use the following questions to encourage learners to think about burns and scalds.

What types of burns and scalds are there?

Suggestions may include:

- Dry heat
- Wet heat (scalds)
- Chemical
- Radiation (sun burn)
- Electric

Use a chart to record learner suggestions.
Learners should record information.

Explain to the class how we estimate the severity of a burn:

- Size
- Cause
- Age
- Location
- Depth

Ask learners to read the learner notes, classroom books or the internet.

Learners can feedback to the class.

Lecturer should use a chart to record information.

Bleeding, burns and bones activity 4

Injuries to bone, muscles and joints

Explain to the learners that the human skeleton consists of 206 bones. The skeleton provides:

- support for the soft tissues of the body, giving the body shape
- protection for important organs such as the brain, lungs, heart and spinal cord
- movement, by incorporating different types of joints and attachment for muscles
- red blood cells and some white blood cells and platelets in the marrow
- a store for minerals and energy

Injury can be caused to the bones, muscles and joints by different types of force.

Types of force	Damage
Direct force	Damage results at location where the force is applied, eg from a blow or a kick
Indirect force	Damage occurs away from the point where the force is applied, eg fractured collar bone from landing on an outstretched arm
Twisting force	Damage results from torsion forces on the bones and muscles, eg twisting an ankle
Violent movement	Injury results from a sudden violent movement, eg injuring knee joint by kicking violently

Ask learners to think about the different types of bone fractures. Possible suggestions:

- Closed
- Open
- Complicated
- Greenstick

What are the possible signs and symptoms of a bone fracture?

Ask learners to use the learner notes, classroom books and the internet to investigate.

Learners should create a mind map or poster of the signs and symptoms.

Learners should present their findings to the class.

You should then explain the treatment of fractures to the learners.

Basic

- Keep injury still with your hands until it is properly immobilised
- Don’t move the casualty until the injury is immobilised, unless they are in danger
- Don’t let casualty eat or drink, in case they need surgery

Upper limb fracture

- Carefully place arm in a sling against the trunk of the body
- Dial 999 for an ambulance if casualty is in severe pain or circulation is affected
- Or arrange to transport casualty to hospital

Lower limb fracture

- Keep the casualty warm and still
- Dial 999
- Immobilise the injury by bandaging the sound leg to the injured one
- Check circulation beyond the injury and any bandages. Loosen bandages if necessary

Dislocation

- Is where a bone becomes partially or fully dislodged at a joint, usually as a result of wrenching movement or sudden muscular contraction
- Commonly occurs in kneecap, shoulder, jaw, thumb or a finger

Never attempt to manipulate a dislocated joint into place.

Bleeding, burns and bones activity 5 — practical session

Strains and sprains

Provide a definition of a strain and a sprain.

- A strain is an injury to a muscle
- A sprain is an injury to a ligament at a joint

The causes of strain and a sprain are:

- Usually caused by sudden wrenching movements, the joint overstretches, tearing the surrounding muscle or ligament
- Minor fractures are commonly mistaken for sprains and strains
- If in doubt, treat as a fracture and send casualty to hospital for an x-ray

The treatments for a strain or sprain are:

Rest

- Do not allow the casualty to continue with activity

Ice

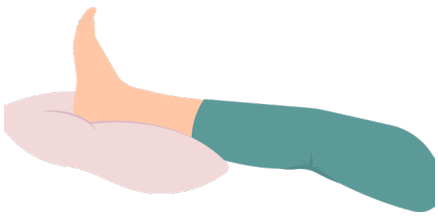
- Apply an ice pack to the injury as soon as possible. This will help to reduce the swelling
- Use a triangular bandage between the skin and the ice pack. Do this for 10 minutes, every 2 hours, for a maximum of 24 hours

Compression

- Apply a firm (not constrictive) bandage to the injured area. This helps to reduce the swelling
- The bandage can be applied over a crushed ice pack for the first 10 minutes

Elevation

- Elevate the injury. This reduces swelling



Bleeding, burns and bones activity 5 — practical session

Ask learners to go into small groups.

Allocate either a sprain or a strain injury to the groups.

Ask the learners to take turns practising the treatment of the injury.

Go round each group and check that they are following the correct procedure.

Bleeding, burns and bones activity 6

The spine

The spinal cord is an extension of the brain stem and travels down the back of the spine. Vital nerves, controlling breathing and movement of limbs travel down the spinal cord. The weakest part of the spinal column is the neck.

Spinal injuries:

- Occur in approximately 2% of trauma casualties
- Poor treatment of a casualty with a spinal injury could lead to them becoming paralysed for life or result in their death

Explain how to assess a situation to determine a possible spinal injury. This could be:

- Sustained blow to the head, neck or back
- Fallen from a height
- Dived in shallow water
- Been in an accident involving speed
- Been involved in a crushing accident
- Multiple injuries
- Pain or tenderness in the neck or back after an accident

Divide the class into small groups.

Ask the learners to investigate the signs and symptoms of a spinal injury using the learner notes, classroom books or the internet.

Possible suggestions could include:

- Pain or tenderness in the neck or back
- Signs of a fracture in the neck or back
- Loss of control of limbs at or below the site of injury
- Loss of feeling in the limbs
- Sensations in the limbs, such as pins and needles or burning
- Breathing difficulties
- Incontinence

Delivery notes topic 7: injuries and conditions

Effects of exposure on body temperature

Explain to the learners that injuries can occur because of exposure to extreme temperatures, for example sunburn or frostbite, heat stroke or hypothermia.

Exposure occurs when the body temperature becomes too hot or cold and causes the hypothalamus to stop working. The hypothalamus is a part of the brain that controls body temperature. Normal body temperature is 37°C.

At-risk groups

The people who are most at risk from the effects of heat and cold are the elderly or infirm, babies and children.

Severe hypothermia or heat stroke are potentially fatal conditions!

Injuries and conditions activity 1

Divide the class into groups.

Allocate each group a condition that is caused by exposure.

Set three questions to investigate:

Group 1

- What are the causes of hypothermia?
- What are the signs and symptoms of hypothermia?
- What is the treatment?

Group 2

- What is frostbite?
- What are the signs and symptoms?
- What is the treatment?

Group 3

- What is trench foot?
- What are the signs and symptoms?
- What is the treatment?

Group 4

- What are chilblains?
- What are the signs and symptoms?
- What is the treatment?

Group 5

- What is heat exhaustion?
- What are the signs and symptoms?
- What is the treatment?

Group 6

- What is heat stroke?
- What are the signs and symptoms of heat stroke?
- What is the treatment?

Ask learners to create a PowerPoint presentation.

Ask learners to present their presentations.

Injuries and conditions activity 2

Epilepsy and seizures

Divide the class into small groups and ask them to investigate epilepsy.

Learners should refer to learner notes, classroom books and the internet.

Learners should create a poster to inform people on the signs and symptoms and how to treat the condition.

Learners should present their findings to the class.

Bites and stings

Explain to the learners that insect bites and stings are rarely more than an irritation in the UK, but if you are abroad insects can pose a significant danger.

Signs and symptoms

- Pain
- Swelling
- Area affected may become itchy

Treatment

- Remove the sting if it is still in the skin
- Wash affected area with water
- Apply a cold compress or ice pack to the affected area for a minimum of 10 minutes if swollen
- Elevate the affected area to help reduce swelling
- Advise casualty not to scratch affected area, to reduce the risk of infection
- The use of remedies such as vinegar or bicarbonate of soda should be avoided

Snake bites

While it is rare for people in the UK to be seriously injured by a snake, it is important the casualty gets first aid and medical attention.

Adders are the most northerly distributed snake: they are the only species found inside the Arctic circle. They are also Britain's only venomous reptile.

Signs and symptoms

- Puncture marks
- Pain
- Swelling
- Vomiting
- Disturbed vision

Other bites (human, cats and dogs)

Can be very frightening and distressing for the casualty. About 200,000 dog bites occur each year in the UK. Cat bites are less common.

Injuries and conditions activity 3

Anaphylactic shock

Ask the learners what they think anaphylactic shock is.

Learners should record information.

Now explain what anaphylactic shock is. It is an extremely dangerous allergic reaction caused by over-reaction of the body's immune system. Insect stings and bites, peanuts or seafood can produce anaphylactic shock in susceptible individuals.

Poisons

Discussion:
A poison can be described as any substance (solid, gas or liquid) that causes damage when it enters the body in a sufficient quantity.

Poisons can enter the body in four ways:

- Ingested: swallowed, either accidently or on purpose
- Inhaled: breathed in, accessing the blood stream very quickly as it passes through the alveoli
- Absorbed through the skin
- Injected through the skin, directly into tissues or a blood vessel

Types of poison

- Corrosive: such as acids, bleach, ammonia, petrol, turpentine, dishwasher powder
- Non-corrosive: such as tablets, drugs, alcohol, plants, perfume

Signs and symptoms of poisoning

- Containers or bottles
- Tablets or drugs
- Syringe or drug taking equipment
- Smell on breath
- Vomiting or retching
- Abdominal pains
- Burns (or burning sensation) around entry area
- Breathing problems
- Confusion or hallucination
- Headache
- Unconsciousness, sometimes fitting
- Cyanosis

Treatment of poisoning by a corrosive substance

- Don't endanger yourself — make sure it is safe to approach
- For a substance on the skin: dilute the substance or wash it away if possible
- For ingested substances: rinse out mouth, give sips or water or milk
- Dial 999
- If unconscious, check airway and breathing — the qualified first aider will resuscitate if necessary
- Place in recovery position and monitor airway and breathing

Treatment of poisoning by a non-corrosive substance

- Dial 999
- If casualty becomes unconscious, check airway and breathing. The qualified first aider will resuscitate if necessary
- Place into recovery position and monitor airway and breathing

Injuries and conditions activity 4

Meningitis

Ask the learners to investigate meningitis. The investigation should include:

- A description
- The signs and symptoms in children and infants
- The treatment

Learners should create a mind map on meningitis by referring to learner notes, classroom books and the internet.

Delivery notes topic 8: employability skills

Employability skills activity 1

What are employability skills?

Employability skills are those generic skills and attitudes valued by employers, such as:

- Understanding of the workplace and the employee's responsibilities, for example, timekeeping, appearance, customer care
- Self-evaluation skills
- Positive attitude to learning
- Flexible approaches to solving problems
- Adaptability and positive attitude to change
- Confidence to set goals, reflect and learn from experience
- And specific employability skills for Early Learning and Childcare

Ask your learners to describe a first aider — an adult who can support casualties requiring first aid.

- What are their skills?
- What do they need to know?
- What values should they hold?

You may wish to make posters or to draw round a picture of a learner to present the information about the 'first aider'.

Employability skills activity 2

Teamwork

Straw tower task

Group task for your class: provide each group with a pack of straws and a roll of sticky tape.

Give them 20 minutes to make the tallest tower they can from the straws. The tower must be free-standing.

Discuss the skills which they used when working as part of a team to build this tower.

Make a list of these skills and discuss if they would be needed for providing play for children and young people.

Basic First aid task

Some of the tasks which need to be carried out at an accident or incident are:

- assessing the situation
- making the area safe
- passing on information

- checking a casualty's pulse
- checking if a casualty is breathing
- checking a casualty's temperature

Ask your learners to work in pairs.

Choose two tasks which they will each undertake, ask them to work out:

- what needs done for each

Employability skills activity 3

Groups or teams

In the world of work, people may be part of a working group which is not necessarily a working team.

In a class discussion, identify some basic differences between working groups and teams.

Consider:

- What makes an effective team?
- What qualities do you need to be an effective team member?
- What are the advantages of working in an effective team?

As part of the Skills for Work Course, your learners will be working as part of different teams carrying out investigations, planning and contributing to presentations and taking part in group discussions. This will help them build the skills they will need if they get a job in the early learning and childcare sector or in any other sector.

From the activities they have already undertaken, discuss the skills they have already used to work as an effective team member.

As a class, make a list of the skills needed to be an effective team member when supporting and facilitating play for children and young people.

Here are some of the things they may suggest that are needed to be a good team member:

- Contribute to team discussion
- Be enthusiastic
- Share your ideas
- Acknowledge the ideas of others
- Be helpful to other team members
- Be ready to do a little more than necessary to help out
- Be flexible

Learner support section

Lecturer note on learner activities

This section includes both learner notes and activities. It is not mandatory to use these materials. Rather, they are offered to centres as a flexible set of notes and activities that can be selected, altered and used in whatever way suits individual centres and their particular situation — for example, as a supplement to centres' own tried and tested materials.

For the learner activities, you may want to explain and discuss the instructions with the learners before issuing them on paper as reminders. Likewise, you should decide how much support learners will need with notes and information sheets before issuing them. In some cases, they may be issued to reinforce knowledge gained through practical activities or following discussion of specific issues or underpinning knowledge.

This section should not be issued as a pack of learner notes in its entirety.

National 5 Introduction to Basic First Aid

Outcome 1

Describe the management of first aid incidents in accordance with current Health and Safety Executive guidelines.

You should be able to:

Performance criteria

(a) Describe the initial assessment process when dealing with an incident.
(b) Describe the measures required to ensure safety of the casualty, the first aider and others at risk.
(c) Describe the process of assessing treatment priorities.
(d) Describe the processes of summoning assistance and passing on information

Outcome 2

Support the provision of first aid of minor injuries and medical conditions in accordance with current Health and Safety Executive guidelines.

You should be able to:

Performance criteria

(a) Demonstrate the provision of first aid to a casualty with a minor injury.
(b) Demonstrate the provision of first aid to a casualty with a minor medical condition.
(c) Demonstrate how to get help when necessary.

Learner notes topic 1: introduction to basic first aid

What is the Health and Safety Executive?

The HSE's work covers a varied range of activities: from shaping and reviewing regulations, to producing research and statistics and enforcing the law.

It is the responsibility of the employer to ensure that an employee who is injured or taken ill at work receives immediate attention.

The Health and Safety (First-Aid) Regulations 1981 require employers to provide adequate and appropriate equipment, facilities and personnel to ensure their employees receive immediate attention if they are injured or taken ill at work.

What is first aid?

First aid is the initial assistance or treatment given to a person who is injured or taken ill. The person who provides this help is a 'first aider'. (DK (2021)

Why is first aid training important?

First aid training is important because it provides the qualified first aider with:

- the basic skills and confidence to respond appropriately
- guidelines to follow so that appropriate actions can be taken to ensure the best outcomes for the casualty

Remember: This unit is an introduction to basic first aid, and that even qualified first aiders are not doctors and not medically trained.

The primary role of the first aider is to be there to help until a more qualified person arrives.

Aims and objectives of first aid training

- To understand your own abilities and limitations
- To stay calm and always stay safe
- To assess a situation quickly and calmly and summon help if necessary
- To assist the casualty and provide the necessary treatment, with the help of others if possible
- To pass on relevant information to the emergency services
- To be aware of your own needs

To become a qualified first aider, you must complete a recognised learning programme or qualification and attend refresher courses.

> '*Every year in the UK, thousands of people die or are seriously injured in incidents. Many deaths could be prevented if first aid was given before emergency services arrive.'* (NHS.UK)

Learner notes topic 2: first aid priorities

What are the first aid priorities?

The first aid priorities are:

- To assess the situation — quickly and calmly
- To protect yourself and any casualties
- To prevent cross infection — between yourself and the casualty (as far as possible)
- To comfort and reassure
- To assess the casualty
- To give early assistance
- To arrange for appropriate help

Aims of first aid

- To preserve life
- Limit worsening of condition
- Promote recovery

To preserve life

To achieve these aims you will need to:

- **A** Maintain the **airways**
- **B** Check the casualty is **breathing**
- **C** Maintain **circulation**
- **D** Control **bleeding**

Limit worsening condition

To ensure the condition of a casualty does not worsen, the first aider should:

- Dress wounds
- Support large wounds and fractures
- Place casualty in a comfortable position consistent with the treatment requirements

Promote recovery

- Relieve the casualty of anxiety and encourage confidence
- Attempt to reduce pain
- Handle casualty gently
- Protect casualty from cold or heat

Remember: In an emergency it's important to stay calm so you can identify safety risks and resources to assist you.

The Four Ps

- Promote a safe environment
- Preserve life
- Prevent injury or illness becoming worse
- Provide reassurance

Promote a safe environment

- Quickly observe the situation and make sure it is safe — stay calm, look for dangers, do not put yourself at risk
- Summon appropriate help — 999, 112 and tell them your name, the service you require, the exact location, the number of casualties, ages if appropriate, and the nature of illness or injuries
- Protect casualties and others from further possible danger

Preserve life

Determine treatment priorities, assess and possibly treat casualties.

Look at the casualty, are they fully conscious? If not, are they breathing? If not, do they have a pulse?

- Maintain airway
- Check breathing
- Maintain circulation
- Control bleeding

We always need to make sure that we treat casualties in order of priority so after any life-threatening cases we then need to look at things that could get worse.

Prevent injury or illness becoming worse and provide reassurance

- Reassure the casualty
- Get help
- Keep calm
- Speak to them, ask them questions — name, pain, ongoing medical conditions, what happened?
- Don’t move them — unless you need to

Remember: Assess the situation quickly and calmly; look for dangers to yourself and to the casualty; never put yourself at risk and always think about infection control.

Observations as you approach the accident

- Any dangers to others or self?
- How many casualties?
- Where is each casualty?

- What condition are the casualties in?
- What resources are available?

Make the area safe

- Protect the casualty and others at the scene from danger
- Be aware of your limitations!
- Stop or control traffic to prevent further injury
- Turn off car ignitions to prevent possible fires or explosions
- Ensure casualties remain in a safe location, to prevent further injuries
- Ensure bystanders do not put themselves or others at risk, to prevent further injury
- Ensuring casualties are not moved, to prevent further injury or worsening of injuries already sustained

Comfort and reassure

- Establish trust — introduce yourself, find out what they like to be called and use their name
- Make eye contact
- Treat them with dignity and respect (if possible, gain consent)
- Explain what is happening and why
- Consider diversity and communication (age, language, barriers to communication)

Summon Help

- Contact a qualified first aider
- Call emergency services

The qualified first aider or emergency services will assess all the casualties and give first aid

- Assess each casualty and determine the treatment priorities
- Treat those with life-threatening conditions first
- Assess and treat the quietest casualty first!

Assess the casualty

- If a casualty is conscious and aware, ask them how they feel

Prioritising treatment

- Conduct a brief assessment of all casualties and attend to unconscious casualties first
- Conduct a primary survey to treat life-threatening injuries
- A-B-C
- Control blood loss
- Treat burns

Infection control

What infections might a first aider pick up?

- HIV (human immunodeficiency virus)
- Hepatitis B
- Hepatitis C
- MRSA (methicillin-resistant Staphylococcus aureus)
- C. Diff (Clostridium difficile)
- Herpes simplex virus
- Colds, flu, diarrhoea

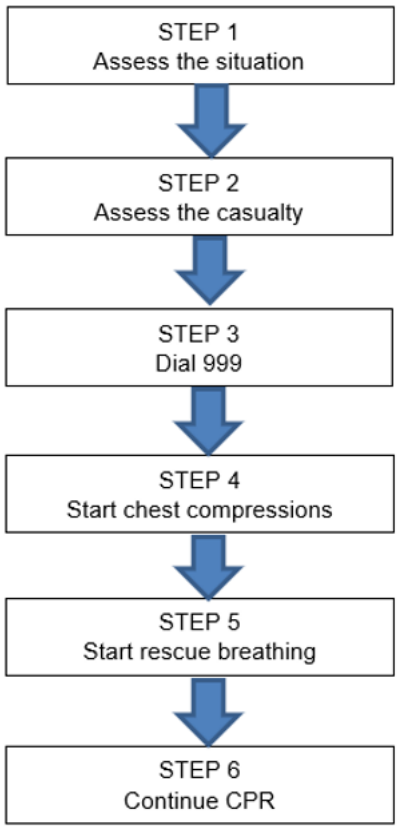
How can a first aider prevent infection?

- Hand washing
- Covering cuts with waterproof dressing
- Wear disposable gloves and aprons
- Ask casualty to dress their own wound
- Don't touch the wound
- Don't breathe or sneeze over the casualty
- Don't cut yourself on a needle or piece of glass when treating the casualty

When a first aider has finished treating a casualty they should dispose of gloves, aprons and dressings correctly by using a biohazard bag (yellow bag) or 'double bag' where necessary. All needles and sharp objects should be placed in a sharps container and they should wash their hands.

Primary survey

A primary survey is a process of checking for life-threatening conditions or injuries. It consists of the following steps.



Assess the situation

- Are there any risks to you or the casualty?
- Check for danger
  - If you cannot deal with the casualty safely don't approach and phone for help
  - If it is safe to approach, assess the casualty

Assess the casualty

- Check response
  - Speak to the casualty
  - Say 'hello, can you hear me' in both ears
  - Shake the shoulders gently at the same time
- If the casualty is responsive, treat the casualty
- Get help – call for the qualified first aider
- Dial 999 as necessary

What responses are a qualified first aider looking for?

- **Speech**
  - Are they responsive; are they confused; are they using inappropriate language; are they making unusual sounds?
  - No response?
- **Eyes**
  - Are they open; do they open if asked; do they open in response to pain, for example if you touch them?
  - Do they stay closed?
- **Movement**
  - Do they move if asked; do they move when they feel pain?
  - Do they make no response?

If the casualty is not responsive, a qualified first aider will:

- **Check the airway**
  - Open the mouth and check the airway is clear and free of any obstructions; tilt the head back and 'open the airway'

- **Check breathing**
  - Look, feel and listen for 10 seconds to make certain the casualty is breathing
  - If the casualty is breathing, place in the 'recovery position' and call emergency services
  - If not, call emergency services and start compressions

- **Start compressions**
  - Place two hands in the centre of the chest
  - Use two hands
  - Depress the chest by one-third
  - Give 30 chest compressions at a rate of 100 per minute

- **Start rescue breathing**
  - Tilt the head back to open airway
  - Give **two** rescue breaths

- **Continue CPR**
  - Repeat this process until help arrives

Secondary survey

Injury to:	What to look out for
Head	Check the skull carefully, running your hands over the scalp to feel for bleeding, swelling or a depression. Handle the casualty very carefully especially if you suspect a neck injury or the person is unconscious.
Ears	Speak clearly to the person in both ears to see if they respond. Check for bleeding and/or clear liquid coming from the ear.
Eyes	Examine both eyes and check for size of pupils and whether they respond to light. Look for foreign bodies, blood or bruising.
Nose	Check nose for blood and/or straw-coloured liquid.
Mouth	Note the rate, depth and nature of breathing. Note the odour of the breath. Check the airway is clear and the mouth and lips for signs of burning.
Skin	Check the face for colour (flushed, pale or blue), temperature (hot or cold) and state (dry or damp).
Neck	Loosen clothing and check for a warning medallion or stoma. Check the spine from the skull as far down as possible without disturbing the casualty's position.
Rib cage	Ask the casualty to breathe deeply and note whether the chest expands evenly. Check the ribcage for irregularities and note any breathing difficulties and/or injuries.
Collar bone	Gently feel the collar bones and shoulder using both hands to compare the two sides.
Arms	Check both arms from shoulder to fingers for irregularity and injury. Note the colour of the skin, any needle marks and look out for a warning bracelet.
Spine	Using the body's natural hollows, you can gently pass your hand under the back to feel along the spine.
Stomach	Gently feel the front of the abdomen.
Hips	Feel both sides of the hips and gently squeeze the pelvis. Note any incontinence or bleeding.
Legs	Ask the casualty to move each leg in turn and check for movement in all the joints.
Toes	Check the colour and movement of all toes.

Procedures for requesting emergency services

Call 999 and provide the following information:

- Your telephone number
- Your name
- Service required
- Exact location
- The type and seriousness of incident
- Additional information
  - number of casualties
  - gender
  - approximate age of casualty
  - any information on their condition
  - information on any hazards such as petrol spillage or other hazardous substances

Learner notes topic 3: priorities of treatment

Monitoring of vital signs

- Level of response (level of consciousness)
- Breathing
- Pulse
- Body temperature

Monitoring of vital signs can help the qualified first aider to identify complications and can indicate changes in a casualty's condition. Monitoring should be repeated regularly, if possible. Record your findings and hand them over to the emergency services.

Levels of response

- Awake — casualty is awake/conscious
- Verbal — casualty responds to a verbal stimulus
- Pain — casualty responds to a pain stimulus
- Unresponsive — casualty is unresponsive to stimulus

Breathing

- Rate — count the number of breaths per minute
- Depth — are the breaths deep or shallow
- Ease — are the breaths easy, difficult or painful
- Noise — is the breathing quiet or noisy? (What type of noise?)

Pulse

- When checking a pulse use your finger not your thumb and press lightly against the skin.
- A normal adult pulse is around 60–80 beats per minute and faster in children 70–130 beats per minute.
- Rate — number of beats per minute
- Strength — strong or weak
- Rhythm — regular or irregular

Body temperature

- Touch and feel exposed skin
- Does the skin feel hot, warm, cold, clammy, sweating, flushed?

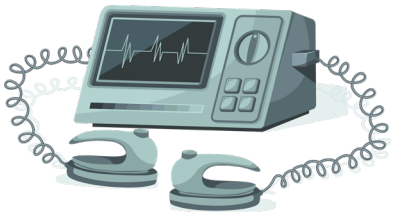
Life-saving priorities

- Getting help early — by calling 999 — the emergency services call handler will give you instructions for CPR
- CPR — provides circulation and oxygen to vital organs (this must only be administered by a qualified first aider or medical professional)
- Early defibrillation — AED (Automated external defibrillation)
- Early advanced care — specialist treatment and hospitalisation

What is a defibrillator?

A defibrillator is a device that produces an electric shock to the heart of a casualty who is in cardiac arrest. This high energy shock is called defibrillation, and it's an essential part in trying to save the life of someone who is in cardiac arrest. A defibrillator may also be referred to as a 'defib', an AED (automated external defibrillator) or a PAD (public access defibrillator) (British Heart Foundation).

The considerations a first aider should make when prioritising treatment of a casualty or casualties are:



- Who is the quietest?
- Who is making the most noise?

Normally, it is the casualty who is making the least noise that should be treated first.
The first aider should use the **Breathing, Bleeding/Burns and Bones** rule to decide which casualty to treat first. This rule can also be applied to multiple casualties.

Unconsciousness

If a casualty is unconscious then take immediate action. Protect the airway, call an ambulance and possibly treat the underlying cause of the condition.

What are the main causes of unconsciousness?

- Fainting and shock
- Internal bleeding
- Head injury
- Stroke
- Heart attack
- Asphyxia
- Poisoning
- Epilepsy
- Diabetes

Learner notes topic 4: assessing levels of response

Assessing the levels of response

- **Alert** — Fully alert, responsive and fully orientated
- **Voice** — Confused, inappropriate words, utters sounds
- **Pain** — Identifies pain or responds to pain but unable to locate
- **Unresponsive** — Unresponsive to pain and voice stimuli

The qualified first aider should use the primary survey to ensure the airway is open, and the casualty is breathing. Once this has been confirmed the first aider can then carry out the secondary survey of the casualty.

Before moving a casualty, the qualified first aider will consider what has happened and what has caused the injury.

- If the qualified first aider suspects a neck injury, then they should try to keep the head in line with the body at all times
- If the qualified first aider has to place the casualty into the recovery position, they should try not to move any suspected injuries

Recovery position

— Place the casualty into the recovery position
— The position is identical for both adults and children, although a baby cannot be put into it

Remember:

- **NEVER place anything in an unconscious casualty's mouth**
- **NEVER place a pillow under the head whilst the casualty is on their back**
- **NEVER move a casualty without checking them first**
- **NEVER move the casualty unnecessarily**

Head injuries

- Any head injury is potentially a very serious condition
- Injuries to the head often lead to unconsciousness, which in turn compromises the airway
- Permanent damage to the brain may result from a head injury

Remember: any casualty with a head injury may also have a spinal injury to the neck.

There are three conditions that may be present with a head injury:

- Concussion
- Compression
- Fractured skull

Concussion

This is a condition that can be caused by ‘shaking’ of the brain. If the head receives a blow the brain can bounce from one side to the other, causing widespread disruption to its normal functioning.

Signs and symptoms of concussion

- Possibly unconscious for a short period, followed by an improvement in levels of response and recovery
- Short-term memory loss, confusion and irritability
- Mild general headache
- Pale clammy skin
- Shallow/normal breathing
- Rapid, weak pulse
- Normal pupils, reacting to light
- Possible nausea or vomiting on recovery

Compression

This is a very serious condition, because the brain is placed under extreme pressure, caused by bleeding or swelling in the cranial cavity. The cause can be from skull fracture or head injury, but can also occur from illness (stroke, tumour or infection).

Signs and symptoms of compression

- Flushed, dry skin
- Deep, noisy, slow breathing
- Slow, strong pulse
- One or both pupils may dilate as pressure increases on the brain
- Condition becomes worse. Fits may occur
- No recovery
- Could have a history of recent head injury with apparent recovery, but then deteriorates
- Levels of response become worse as condition develops
- Intense headache

Fractured skull

This is also a serious condition because the broken bone may directly damage the brain, or cause bleeding, which in turn results in compression.

Signs and symptoms of a fractured skull

- Bruising or swelling behind an ear
- Bleeding or fluid coming from an ear or the nose
- Deformity or lack of symmetry of the head
- Blood in the white of the eye

- The casualty may also suffer from concussion or compression, so those signs and symptoms might be present
- Bleeding, swelling or bruising of the head
- Soft area or depression on the scalp
- Bruising around one or both eyes

Treatment of a head injury

- Get help — call for the qualified first aider
- Dial 999 for an ambulance
- Maintain airway and breathing
- Support head and neck, keeping in line with body
- Control any bleeding
- Look and treat any other injuries

Strokes

Strokes occur when a blood clot (thrombosis) blocks an artery supplying the brain. About 60% of strokes are caused by blood clots. The other type of stroke is caused by bleeding into the cranial cavity following the rupture of an artery.

Signs and symptoms of a stroke

- Weakness or paralysis down one side of the body or face
- Slurred or confused speech
- Gradual or sudden loss of consciousness
- Unequal pupil size
- Agitation/aggression to the point of crying
- Headache
- Slow, strong pulse
- Slow deep noisy breathing
- Flushed, dry skin
- Vomiting or incontinence

Treatment of a stroke

- Get help — call for the qualified first aider
- Maintain airway and breathing
- Dial 999 for an ambulance
- Place unconscious casualty in recovery position
- Lay the conscious casualty down, with head and shoulders raised
- Reassure casualty — do not assume that they do not understand
- Monitor breathing and levels of response

When do you use the recovery position?

The recovery position should be used on a casualty who is unconscious, but otherwise unhurt and breathing normally. The purpose of the recovery position is to keep the casualty safe.

Aims of the recovery position

- To prevent the tongue falling back into the throat and blocking airway
- Allows secretions to drain from mouth
- Reduces the risk of aspiration
- Ensures head, neck and back are kept aligned to reduce risk of spinal injury
- Bent limbs keep casualty propped in a comfortable position

Recovery position steps

— Get help — call for the qualified first aider
— Check for injuries
— Call 999
— Bend arm to stop person rolling over
— Gently roll person onto their side
— Bend leg to support position
— Tilt head back and tuck hand under chin to keep mouth open
— Check for a change in condition

Learner notes topic 5: first aid conditions

Airways and breathing problems

The main causes of airway and breathing problems include:

- Choking
- Anaphylaxis
- Asthma
- Drowning

Choking

Choking can occur in infants, children and adults. Small objects or food (such as sweets, grapes or nuts) can become lodged in the airway if they are accidentally 'breathed in' rather than swallowed.

Signs and symptoms

- The casualty is unable to speak or cough
- Grasping or pointing to throat
- Distressed look on face
- Congestion of the face initially
- Pale skin and cyanosis (blue-tinge colour) in later stages
- Unconsciousness in later stages

Treatment for an adult and child

Encourage the casualty to cough. If choking is mild, this will clear the obstruction and the casualty should be able to speak to you.

If the obstruction has not cleared, get help — call for the qualified first aider — then the qualified first aider will undertake the following steps:

1 Slap back
   — Shout for help and stay with the casualty
   — Bend the casualty forwards so the head is lower than the chest
   — Give up to five firm blows between the shoulder blades with the palm of your hand
   — Check between blows and stop if you clear the obstruction

2 Abdominal thrusts
   — Stand behind the casualty
   — Place both your arms around their waist
   — Make a fist with one hand and place it just below the ribs with your thumb inwards
   — Grasp this fist with your other hand, then pull sharply inwards and upwards. Do this up to five times. Check between thrusts and stop if obstruction has cleared

If the obstruction still has not cleared then:

3 Complete steps 1 and 2 again
   — Keep repeating steps 1 and 2
   — If treatment is proving ineffective, then ask for help
   — Ask someone to dial 999 and ask for an ambulance
   — Do **not** stop treatment if the casualty is still conscious

Treatment for an infant

- The baby may attempt to cough
- If the choking is only mild, this will clear the obstruction
- The baby may cry and should now be able to breathe effectively

If the obstruction has not cleared, get help — call for the qualified first aider — then the qualified first aider will undertake the following steps:

1 Slap back
   — Ask for help
   — Lay the baby over your arm, face down, legs either side of your elbow with the head below the chest
   — Give up to five blows between the shoulder blades with the flat of your fingers. Check between blows and stop if you clear the obstruction

2 Chest thrusts
   — Turn the infant over, chest uppermost and lower the head below the level of the chest
   — Using two fingers on the chest, give up to five chest thrusts. These are similar to chest compressions, but sharper in nature and delivered at a slower rate. Check between thrusts and stop if obstruction has cleared

If the obstruction still has not cleared then:

3 Complete steps 1 and 2 again
   — Keep repeating steps 1 and 2
   — If treatment is proving ineffective, then ask for help
   — Ask someone to dial 999 and ask for an ambulance
   — Do **not** stop treatment if the casualty is still conscious

If the casualty becomes unconscious then:

- Dial 999 and ask for an ambulance
- A qualified first aider may begin CPR

Insect bites and stings

Signs and symptoms

- Pain
- Swelling
- Area affected may become itchy

Treatment

- Remove the sting if it is still in the skin
- Wash affected area with soap and water
- The application of a cold compress or ice pack should be applied to affected area for a minimum of 10 minutes if swollen
- Elevate the affected area to help reduce swelling
- Advise casualty not to scratch affected area, to reduce the risk of infection
- The use of remedies such as vinegar or bicarbonate of soda should be avoided

In some cases, the casualty may develop severe symptoms similar to anaphylactic shock.

For example:

- Difficult, wheezy breathing, tight chest
- Sudden swelling of the face, tongue, lips, neck and eyes
- Nausea or vomiting
- Rapid pulse
- Dizziness or feeling faint
- Difficulty swallowing
- Loses consciousness

Treatment

- Dial 999 for an ambulance
- Help the conscious casualty to sit up to help breathing
- If the casualty becomes unconscious — the qualified first aider will lay them down and prepare to resuscitate

Anaphylaxis

Anaphylaxis is an extremely dangerous allergic reaction and occurs when the immune system has an overreaction which triggers the body to produce histamine. Histamine prompts the blood vessels to dilate, the bronchioles in the lungs to constrict, the blood capillaries to swell, and heart contractions to weaken. Histamine can also cause the skin to become itchy and a rash may appear.

The most common causes of anaphylaxis are allergic reactions to drugs, for example penicillin (antibiotic) or allergies to insect stings, peanuts, seafood, eggs, dairy products.

Remember: allergic reactions can happen instantly causing anaphylaxis.

Signs and symptoms

- Sudden swelling of the face, tongue, lips, neck and eyes
- Hoarse voice
- Difficult, wheezy breathing, tight chest
- Rapid weak pulse
- Nausea, vomiting, stomach cramps, diarrhoea
- Itchy skin
- Red, blotchy skin eruption (hives)
- Anxiety

Treatment

- Dial 999 for an ambulance
- Help the conscious casualty to sit up to help breathing
- If the casualty becomes unconscious — the qualified first aider will lay them down and prepare to resuscitate

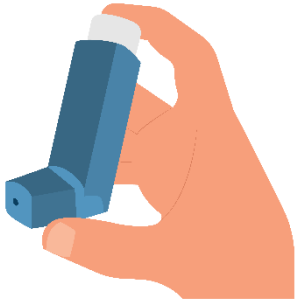
NB: A casualty with a known allergic reaction may carry a syringe of adrenaline or 'epi-pen'. This can save the person's life if it is given promptly. The casualty should be able to inject themselves.

Asthma

This is a condition caused by an allergic reaction in the lungs from substances such as dust, fumes or pollen. Muscles around the bronchioles go into spasm and constrict, making it difficult to breathe. Most people with asthma carry inhalers (blue) with them.

Asthma tends to develop in early life and will be triggered by allergies such as pollen or dust, whereas if this condition develops later in life the causes are more likely to be **non-allergic**, with attacks triggered by stress, exercise, cold air, smoke, viruses or other irritants.

Signs and symptoms



- A prolonged cough after having a cold could be a possible sign of asthma
- Difficulty breathing
- Wheezy breath sounds
- Difficulty speaking
- Pale, clammy skin
- Grey or blue lips and skin (cyanosis)
- Severe attack will cause exhaustion
- In a prolonged attack, casualty may become unconscious and stop breathing

Treatment to prevent an asthma attack

Asthma is a condition that can be managed with medications. The medications vary depending on the severity of symptoms. The medications help manage the condition and are administered through inhalers, nebulizers or tablets. In most cases a person will carry a blue/ bluish-green/ teal inhaler which relieves the symptoms. A person may also need to have an inhaler which they take once or twice a day to prevent an attack. The colour of these inhalers is brown/reddish-brown.

Treatment during an asthma attack

- Keep calm and be reassuring towards the casualty
- Get help — call for the qualified first aider
- Help the casualty to sit upright
- Assist the casualty to take own medication
- If attack is prolonged, casualty is severely distressed or medication is ineffective, dial 999 for an ambulance
- If casualty becomes unconscious, the qualified first aider will lay them down and be prepared to resuscitate

Drowning

Drowning can occur when a person becomes submerged under water and inhales water into their lungs. This does not have to be a lot of water. Drowning can also occur by swallowing large amounts of water into the lungs. This may be vomited as they are rescued or resuscitation takes place.

Secondary drowning refers to the delayed symptoms of drowning. It can occur when a person inhales water into their airways, for example while they are swimming. This causes inflammation or irritation in the lungs, making it difficult to breath. This causes the person to cough or splutter. They may seem okay at the time but it is actually a secondary injury which is often classed as a drowning incident.

There are also factors that can contribute to drowning which include:

- Hypothermia
- Alcohol
- Medication
- Recreational drugs
- A medical condition

Treatment

- Do not put yourself at risk!
- Get help — call for the qualified first aider

- If possible, keep the casualty horizontal during rescue, as shock can occur
- Check airway and breathing
- The qualified first aider may perform CPR
- Dial 999 for an ambulance, even if casualty appears to recover

Circulation problems

The circulatory system consists of tubes (arteries, veins and capillaries) connected to a pump (the heart).

The pulse

Every time the heart beats blood is pumped through the arteries. When checking a casualty's pulse use the pads of the fingers, not the thumb. The pulse can be detected at a number of different points on the body:

- Temple
- Neck (most accurate)
- Arm (used for blood pressure)
- Wrist

Checking the pulse

- **Rate** — The rate of the pulse is determined by the how fast the heart is beating. When checking a pulse, the first aider should consider whether the pulse rate is too fast or slow. How many beats are there per minute?
- **Rhythm** — The rhythm of the heart can be measured to determine if there is a regular beat or are if there are 'missed' beats
- **Strength** — The strength of the pulse can determine whether there is a strong or weak heartbeat

Individual	Normal heart rates at rest
Adult	60 to 90 beats/minute
Child	90 to 110 beats/minute
Infant	110 to 140 beats/minute

Circulation problems can lead to:

- Angina
- Heart attack
- Shock
- Fainting

Angina

This is a condition caused by the build-up of a cholesterol plaque on the inner lining of the coronary artery. Over time this build-up causes narrowing and hardening of the artery. During exercise and excitement, the casualty may experience pain in the chest as a result of this narrowing.

Heart attack

This condition is caused when the surface of a cholesterol plaque in a coronary artery crack and has a 'rough surface'. This can lead to the formation of a blood clot on the plaque, completely blocking the artery resulting in death of an area of the heart muscle. This death of the heart muscle is permanent and will not be relieved by rest.

Signs and symptoms

Symptom	Angina	Heart attack
Onset	Sudden, usually during exertion, stress or extreme weather	Sudden, can occur at rest
Pain	Vicelike, squashing pain, dull tightness, or pressure on the chest. Can be mistaken for indigestion	Vicelike, squashing pain, dull tightness, or pressure on the chest. Can be mistaken for indigestion
Location of pain	Central chest area. Can radiate onto either arm, the neck, jaw, back or shoulders	Central chest area. Can radiate onto either arm, the neck, jaw, back or shoulders
Duration	Usually lasts 3 to 8 minutes, rarely longer	Usually lasts longer than 30 minutes
Skin	Pale, may be sweaty	Pale, grey colour, may sweat profusely
Pulse	Variable. Irregular, missing beats	Variable. Irregular, missing beats
Other signs and symptoms	Shortness of breath, weakness, anxiety	Shortness of breath, dizziness, nausea, vomiting, sense of impending doom
Factors giving relief	Resting, reducing stress, taking nitro-glycerine medication	Nitro-glycerine medication may give partial or no relief

Treatment

- **Angina and heart attack**
  - — Get help — call for the qualified first aider
  - — Sit the casualty down and make them comfortable
  - — Allow the casualty to take their medication
  - — Reassure casualty
  - — Monitor pulse and breathing
  - — The qualified first aider will be prepared to resuscitate if necessary

- **Dial 999 for an ambulance if:**
  - — You suspect a heart attack
  - — The casualty has not been diagnosed as having angina
  - — The symptoms are different or worse than usual
  - — Angina pain is not relieved by the casualty's medication and rest after 15 minutes
  - — You are in any doubt

Shock

Shock is a medical emergency in which the organs and tissues of the body are receiving an inadequate supply of blood. This deprives the organs and tissues of oxygen (carried in the blood) and allows the build-up of waste products.

The condition can happen quickly and can result in death if not treated.

Types of shock

- Hypovolaemic shock
- Cardiogenic shock
- Anaphylactic shock
- Septic shock

Hypovolaemic shock

This type of shock occurs due to a loss of body fluids which results in a low volume of blood. The causes of hypovolaemic shock can be from external or internal bleeding, burns, vomiting, diarrhoea and excessive sweating.

Signs and symptoms

- The body reacts by releasing adrenalin causing heart rate to rise
- Skin pales and become clammy

As the conditions worsens the following signs and symptoms may be present:

- Fast, shallow breathing
- Rapid, weak pulse
- Cyanosis
- Nausea or vomiting
- Dizziness, weakness
- Sweating
- As the brain suffers a lack of oxygen:
  - Deep, sighing breathing (air hunger)
  - Confusion, anxiety, even aggression
  - Unconsciousness

Treatment

- Get help — call for the qualified first aider
- Treat the cause of the shock (for example external bleeding)
- Lay the casualty down and raise their legs in the air, returning blood to the vital organs
- Dial 999 for an ambulance
- Keep the casualty warm
- Loosen tight clothing around the neck, chest or waist

- Monitor breathing, pulse and levels of response (AVPU)
- The qualified first aider will be prepared to resuscitate

Fainting

Fainting can occur because of poor nerve control of the blood vessels and heart. When a casualty faints, the blood vessels in the lower body dilate and the heart becomes slow. This results in the blood pressure falling and the casualty has a temporary reduction in blood supply to the brain.

The causes of fainting can be due to pain, fright, lack of food, emotional stress, prolonged periods of inactivity (sitting or standing) and heat exhaustion.

Signs and symptoms

- Temporary loss of consciousness, falling to the floor
- Slow pulse
- Pale, clammy skin
- Before the faint the casualty may have suffered nausea, stomach-ache, blurred vision or dizziness

Treatment

- Get help — call for the qualified first aider
- Lay the casualty down and raise their legs in the air, returning the blood to the vital organs
- Check airway and breathing
- Remove cause of stress, crowds of people and allow plenty of fresh air
- Reassure the casualty as they recover. Do not allow them to sit up suddenly
- If casualty does not recover quickly or you are unsure, check their airway and breathing, place them in the recovery position and dial 999 for an ambulance

Learner notes topic 6: bleeding, burns and bones

How much blood does a human body have?

This varies according to body size. There is approximately 1 pint of blood to every stone of body weight. The average adult has between 8 to12 pints of blood while children have less. A baby only has around 1 pint of blood.

Types of internal and external bleeding

- Arterial
  - — Bright red
  - — A wound to a major artery could result in blood spurting
- Venous
  - — Dark red
  - — A wound from a major vein will ooze
- Capillary
  - — Occurs in all wounds
  - — Blood loss is usually slight and is easily controlled
  - — Described as a trickle of blood

Effects of blood loss

Indications	Symptoms at 10% blood loss	Symptoms at 20% blood loss	Symptoms at 30% blood loss	Symptoms at 40% blood loss
Consciousness	Normal	May feel dizzy standing up	Restless, anxious, lowered level of consciousness	Unresponsive
Skin	Normal	Pale	Cyanosis (bluish/grey tinge to the skin)	Severe cyanosis, cold and clammy
Pulse	Normal	Slightly raised	Rapid and hard to detect	Undetectable
Breathing	Normal	Slightly raised	Rapid	Air hunger

Treatment of external bleeding

The aims of treatment are to stop the bleeding, prevent the casualty from going into shock, and avoiding infection:

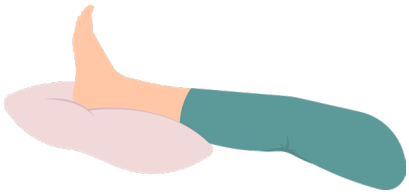
- Sit or lay
- Examine
- Elevate
- Pressure

Sit or lay

- Sit or lay the casualty down
- Place them in a position that is appropriate to the location of the wound and extent of their bleeding

Examine

- Examine the wound
- Look for foreign objects and note how the wound is bleeding
- Describe what it looks like to the medical team



Elevate

- Elevate the wound
- Ensure that the wound is above the level of the heart, using gravity to reduce the blood flow to the injury

Pressure

- Apply direct pressure to stem bleeding
- Pressure should be continuous for 10 minutes
- A firm bandage is usually sufficient
- If there is an embedded object in the wound, apply pressure at either side of the object
- Apply indirect pressure to stem bleeding if direct pressure is not possible or effective, as a last resort
- Pressure can be applied to the artery supplying the limb, squashing it against a bone and reducing blood flow (brachial or femoral)
- Apply indirect pressure for a maximum of 10 minutes

Hygiene when dealing with wounds

- Protect yourself by covering your own cuts or abrasions with a waterproof dressing
- Wear disposable gloves
- Wash your hands thoroughly before and after dealing with the casualty
- Dispose of soiled dressings, etc appropriately
- Dressings should be:
  - Sterile
  - large enough to cover the wound
  - Absorbent
  - Non-adherent
- Embedded objects
  - Should **not** be removed from the wound!
  - Use sterile dressings and bandages to ‘build up’ around the protruding object. This will apply pressure around the wound and support the object
  - Arrange for the casualty to go to hospital to have object removed

Types of wounds	Basic treatment
Contusion (a bruise)	Cool the area with an ice pack or running water as soon as possible
Abrasion (a graze)	Remove dirt using clean water and sterile swabs. Clean from centre of the wound outwards
Laceration (a rip or tear of the skin)	SEEP (**S**it or lay, **E**xamine, **E**levate and **P**ressure
Incision (a clean cut)	SEEP (**S**it or lay, **E**xamine, **E**levate and **P**ressure
Puncture (a stabbing wound)	Dial 999. Never remove an embedded object
Gunshot (caused by a bullet)	Dial 999. Check airway and breathing. Pack wound with dressings to try and control bleeding
Amputation (complete or partial severing of a limb)	Dial 999. SEEP. Dress wound with a sterile non-fluffy dressing. Put amputated limb in a plastic bag, and pack with ice to preserve it
De-gloved (severing of the skin from the body)	Put the skin back in place if possible. Arrange urgent transport to hospital

Cuts and grazes

A cut is when the skin is broken, and a graze is when the top layers of skin have been scraped away.

Treatment for a cut

- Elevate the injured limb above the heart
- Clean around the wound and wipe away from the wound
- Pat dry and apply a sterile dressing or plaster
- Dial 999 for an ambulance if the wound does not stop bleeding, has a foreign body embedded, or is the result of an animal bite

Treatment for a graze

- Clean the wound with water or using sterile wipes
- Pat dry and cover wound with gauze, clean cloth or plaster

Bruises

A bruise occurs as a result of a blow or impact rupturing underlying blood vessels

Signs and symptoms

- The skin around the affected area may appear discoloured

Treatment

- Raise and support injured part into a comfortable position
- Hold an ice pack on to the affected area to reduce swelling

Splinters

Splinters are objects that become embedded under the skin. Most often these are tiny pieces of wood but can also be glass, metal or plastic.

Signs and symptoms

- A small speck or line that you can see under the skin on the hands or feet
- A feeling that something is stuck under the skin
- Pain from the affected area
- Affected area may appear red or pinkish, swollen, warm to the touch or may shows signs of infection (greenish pus)

Treatment

- Clean the area around the splinter
- Use sterilised tweezers to grasp the splinter, draw the splinter out in a straight line
- Once removed, gently squeeze the area to encourage slight bleeding as this will help to remove any dirt left by splinter
- Clean and dry the wound and cover with a dressing if required

Foreign object

The nose

The natural curiosity of young children may cause them to put small objects in their noses or ears when playing or copying another child. If a foreign object becomes lodged in the ear, like cotton wool, beads or insects, this can cause a blockage which can result in temporary deafness. If a foreign object becomes lodged in the nose, like ‘button’ batteries, it can cause bleeding or burns.

Treatment

If you suspect a baby or child has an object lodged in the ear or nose, do not try to remove it as this may push the object in further.

- Get help — call for the qualified first aider
- Dial 999 or call 112 for help
- Keep the casualty calm

The ear

This is a relatively common occurrence in toddlers and children. In most cases a child will place an object inside their ear which becomes lodged in the ear canal. It is not usually serious. However, insects are also known to crawl into the ear during sleep.

Signs and symptoms

- A feeling of something is inside
- Pain
- Irritation
- Nausea
- Bleeding
- Buzzing sound (if the object is an insect)

Treatment

If you suspect, there is an insect inside the ear:

- Get help — call for the qualified first aider
- Support the casualty's head with the affected ear facing upwards
- Gently poor tepid water into the ear so that the insect floats out
- If flooding the ear does not remove the insect, call 112 to ask for advice

The eye

Foreign objects in the eye are usually caused by grit or loose eyelashes. These objects normally lie on the surface of the eye and can be rinsed out with water. Other foreign objects such as metal or glass can penetrate the eye and become embedded.

Signs and symptoms

- Pain in the eye
- Redness and watering of the eye
- A visible wound
- Blurred, partial of total loss of vision

Treatment

- Get help — call for the qualified first aider
- Advise casualty not to rub the eye
- Ask casualty to sit down facing a light
- Gently open the eyelid so that you can look at the eye
- If a foreign object can be seen, tilt head backwards and bath the eye in clean water
- If the foreign body is still visible, use a moist piece of gauze or clean tissue to remove
- If the object does not look easy to remove dial 112 and ask for emergency help

Nosebleeds

- Nosebleeds are the result of the blood vessels inside the nostrils rupturing
- Nosebleeds can occur when the nose is hit, or when sneezing, picking or blowing the nose

- Nosebleeds can also be caused by medical conditions such as high blood pressure or anti-clotting medication

Treatment

- Ask casualty to use a clean tissue to catch the blood
- Ask casualty to sit down and lean their head forward
- Advise casualty to breathe through mouth and to pinch the soft part of their nose for up to ten minutes
- Get help — call for the qualified first aider

- If the nose is still bleeding, repeat nose pinching for a further 10 minutes
- Once the nose has stopped bleeding, ask casualty to remain in a lean forward position
- Clean the area around the nose with tepid water
- If bleeding lasts for more than 30 minutes, or casualty takes anti-coagulant drugs, take or send them to hospital in an upright position
- If bleeding persists, dial 999 or 112 for emergency help

Treatment of internal bleeding

This can be a very serious condition that can be difficult to recognise in its early stages. The cause of internal bleeding can be as a result of injury, stomach ulcer or weak artery (brain haemorrhage or bleeding into lungs).

Signs and symptoms

Bleeding from:	**Appearance**	**Possible causes**
Ear	Bright red or clots. Blood with watered down appearance	Perforated ear drum, fractured skull. Fractured skull, leaking cerebrospinal fluid from around the brain
Nose	Bright red or clots. Blood with watered down appearance	Nosebleed. Fractured skull, leaking cerebrospinal fluid from around the brain
Mouth	Bright red, frothy. Vomited, or ‘coffee grounds’ appearance	Bleeding in the lungs. Bleeding in the stomach
Uterus	Smoky red colour	Bleeding in the kidneys and bladder
Vagina	Fresh blood or clots	Menstruation, miscarriage, injury or disease to the vagina or womb
Anus	Bright red fresh blood. Black ‘offensive smelling’ stools	Bleeding from the lower bowel/rectum (haemorrhoids or injury). Bleeding from the large bowel

Treatment of internal bleeding

- Get help — call for the qualified first aider
- Dial 999 for an ambulance
- Treat the casualty for shock as necessary

Crush injury

- Most commonly occurs as a result of building site or traffic accidents
- If blood flow to a limb is crushed, there is a danger of toxins building up in the muscle tissues below the site of the crushing
- If blood flow is impaired for more than 15 minutes, the toxins will build up and are released into the rest of the body causing kidney failure (this may result in death)

Treatment

Less than 15 minutes:

- Get help — call for the qualified first aider
- Release the casualty as quickly as possible
- Dial 999
- Control any bleeding and cover open wounds
- Keep injuries stable
- Treat for shock
- Monitor airway and breathing until help arrives

More than 15 minutes:

- **Do not** release the casualty
- Dial 999
- Monitor airway and breathing until help arrives

Burns and scalds

Types of burns

- Dry heat
- Wet heat (scalds)
- Chemical
- Radiation (sun burn)
- Electric

Dry heat burns

- Any direct contact with a dry heat source or friction
- Get help — call for the qualified first aider
- Maintain airway and monitor breathing
- Cool the burn immediately with running water for at least 10 minutes

- Remove jewellery
- Dress the wound with a sterile non-adherent bandage after the wound has been cooled
- Dial 999 if burn appears severe or the casualty has inhaled smoke or fumes

Wet heat burns

- Scalds are most commonly from hot water but may be from hot fats or other liquids that can reach a higher temperature than water
- Treat as a dry heat burn

Chemical burns

- Caused by chemicals that either corrode the skin and/or create heat
- Get help — call for the qualified first aider
- Irrigate the burn with plenty of running water to wash chemical away for at least 20 minutes
- Dial 999 for an ambulance
- Note the chemical that caused the burn

Radiation burns

- Most commonly seen as sunburn
- Remove casualty from exposure of the sun and cool area with cold water for 10 minutes
- Get help — call for the qualified first aider
- If extensive blistering is present or you are not sure, seek medical advice
- Give plenty of cool sips of water to ensure heat exhaustion does not take effect
- If mild, use an after-sun cream to soothe the area

Electric burns

- Caused by heat that is generated by electrical current flowing through the tissues of the body
- Get help — call for the qualified first aider
- Entry and exit wounds may be visible
- Internal burns may be present
- Electric shock may cause cardiac arrest, the qualified first aider will be prepared for CPR
- Dial 999
- Treat as dry heat burn

Depth of burns

- Superficial (epidermis)
  - The outer layer
  - Commonly caused by scalds
  - Burn looks red, sore and swollen
- Intermediate (dermis)

  - Affects the epidermis and dermis layers of the skin
  - Burn looks raw and blisters will form
- Full thickness (subcutaneous fat layer)
  - The layers of skin are burned away to the subcutaneous fat layer or more
  - Burn may look pale, charred or waxy
  - Nerve endings will be burned away, so pain in this area may be absent

Note: A casualty should be referred to hospital if:

- the burn is larger than 1 inch square
- the casualty is a child or baby
- the burn goes all the way around the limb
- any part of the burn appears to be full thickness
- the burn involves hands, feet, genitals or face
- you are not sure

Injuries to bone, muscles and joints

The skeletal system

There are 206 bones in the human body. The skeletal system provides:

- Support for the soft tissues of the body, giving the body shape
- Protection for important organs such as the brain, lungs, heart and spinal cord
- Movement, by incorporating different types of joints and attachment for muscles
- Production of red blood cells and some white blood cells and platelets in the marrow
- A store for minerals and energy

Causes of injury

Injury can be caused to the bones, muscles and joints by different types of force.

Types of force	Damage
Direct force	Damage results at location where the force is applied, eg from a blow or a kick
Indirect force	Damage occurs away from the point where the force is applied, eg fractured collar bone from landing on an outstretched arm
Twisting force	Damage results from torsion forces on the bones and muscles, eg twisting an ankle
Violent movement	Injury results from a sudden violent movement, eg injuring knee joint by kicking violently

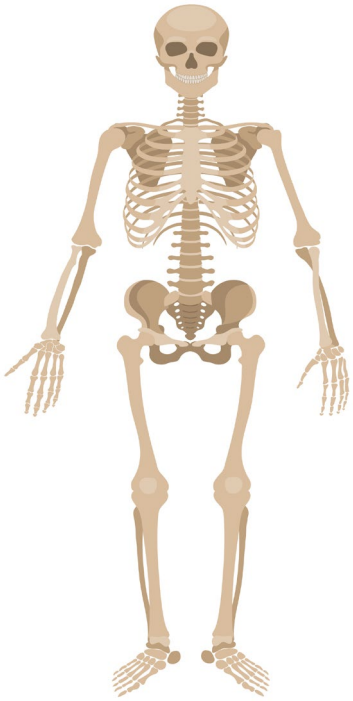
Types of fractures

- Closed
- Open
- Complicated

- Greenstick

Closed fracture

- This is a clean break or crack in the bone
- With no complications



Open fracture

- The skin has become broken by bone which may (or may not) still be protruding from the wound
- This type of injury has a high risk of infection

Complicated fracture

- With this type of injury, there are complications that have arisen as a result of the fracture, such as trapped blood vessels or nerves

Greenstick fracture

- Occurs more commonly in children, who have young, more flexible bone
- The bone is split, but not totally severed
- Often mistaken for sprains and strains, because only a few of the signs and symptoms of a fracture are present

Signs and symptoms of fractures

Pain	At the site of the fracture
Loss of power	For example, not being able to lift anything with a fractured arm
Unnatural movement	This type of fracture is classed 'unstable' and care should be taken to prevent the fracture from moving
Swelling or bruising	Around the site of the fracture
Deformity	If a leg is bent in the wrong place, it's broken
Irregularity	Lumps or depressions along the surface of the bone, where the broken ends of the bone overlap
Crepitus	The feeling and sound of bone grating on bone, when the broken ends rub on each other
Tenderness	At the site of the injury

Treatment of a fracture

Get help — call for the qualified first aider

Basic

- Keep injury still with your hands until it is properly immobilised
- Don't move the casualty until the injury is immobilised, unless they are in danger
- Don't let casualty eat or drink, in case they need surgery

Upper limb fracture

- Carefully place arm in a sling against the trunk of the body
- Dial 999 for an ambulance if casualty is in severe pain or circulation is affected
- Or arrange to transport casualty to hospital

Lower limb fracture

- Keep the casualty warm and still
- Dial 999
- Immobilise the injury by bandaging the sound leg to the injured one
- Check circulation beyond the injury and any bandages. Loosen bandages if necessary

Dislocation

- Is where a bone becomes partially or fully dislodged at a joint, usually as a result of wrenching movement or sudden muscular contraction
- Commonly occurs in kneecap, shoulder, jaw, thumb or a finger

REMEMBER: Never attempt to manipulate a dislocated joint into place.

Strains and sprains

- A strain is an injury to a muscle
- A sprain is an injury to a ligament at a joint

Causes of strains and sprains

- Usually caused by sudden wrenching movements, the joint overstretches, tearing the surrounding muscle or ligament
- Minor fractures are commonly mistaken for sprains and strains
- If in doubt, treat as a fracture and send casualty to hospital for an x-ray

Treatment

- **Rest**
  - Do not allow the casualty to continue with activity
- **Ice**
  - Apply an ice pack to the injury as soon as possible
  - This will help to reduce the swelling
  - Use a triangular bandage between the skin and the ice pack
  - Do this for 10 minutes, every 2 hours, for a maximum of 24 hours
- **Compression**
  - Apply a firm (not constrictive) bandage to the injured area
  - This helps to reduce the swelling
  - The bandage can be applied over a crushed ice pack for the first 10 minutes
- **Elevation**
  - Elevate the injury
  - This reduces swelling

The spine

The spinal cord is an extension of the brain stem and travels down the back of the spine. Vital nerves, controlling breathing and movement of limbs travel down the spinal cord. The weakest part of the spinal column is the neck.

Spinal injuries:

- Occur with approximately 2% of trauma casualties
- Poor treatment of a casualty with a spinal injury could result in them becoming paralysed for life or even death

Get help — call for the qualified first aider. The first aider should suspect a spinal injury if the casualty has:

- Sustained a blow to the head, neck or back
- Fallen from a height
- Dived in shallow water
- Been in an accident involving speed
- Been involved in a crushing accident
- Multiple injuries
- Pain or tenderness in the neck or back after an accident

Signs and symptoms

- Pain or tenderness in the neck or back
- Signs of a fracture in the neck or back
- Loss of control of limbs at or below the site of injury
- Loss of feeling in the limbs
- Sensations in the limbs, such as pins and needles or burning
- Breathing difficulties
- Incontinence

Note: If some of these signs and symptoms are present, nerves may already be damaged. You should treat a casualty who you suspect has an injury to prevent these signs and symptoms from developing.

Treatment if the casualty is conscious

- Reassure casualty and tell them not to move
- Keep casualty in the position that you find them. Do not move them unless they are in severe danger
- Hold their head still with your hands, keeping the head and neck in line with the upper body
- Call for help from the qualified first aider
- Dial 999
- Keep casualty still and warm until help arrives

Treatment if the casualty is unconscious and breathing normally

- Do not move the casualty unless they are in severe danger
- Call for help from the qualified first aider
- Dial 999

The qualified first aider will:

- Hold the casualty's head still, keeping the head and neck in line with the upper body
- Use 'log roll' technique to place casualty into recovery position
- Keep casualty warm and still, continually monitoring airway and breathing

Treatment if the casualty is not breathing normally

- Call for help from the qualified first aider
- Dial 999

The qualified first aider will:

- Open the airway using minimum head tilt
- Re-check breathing once the airway is open

- Carry out resuscitation
- Get someone to support the head while CPR is taking place

REMEMBER: successful resuscitation that results in paralysis from a neck injury is a tragedy but failing to maintain an adequate airway will result in death.

The first aider and medical professionals will manage the airway where there is a spinal injury

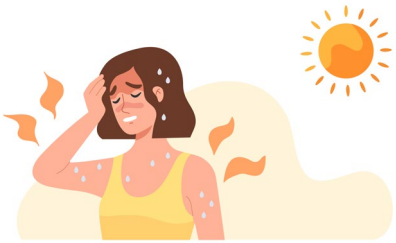
- If a casualty is unconscious and laid on their back, the airway can be in danger from becoming blocked
- Great care must be taken not to move the spine
- If possible, keep the casualty in the position that you find them

If airway becomes blocked immediate action will be needed to protect the airway.

Learner notes topic 7: injuries and conditions

Effects of exposure on body temperature

Injuries can occur as a result of exposure to extreme temperatures, for example sunburn or frostbite, heat stroke or hypothermia.



Exposure occurs when the body temperature becomes too hot or cold and causes the hypothalamus to stop working. The hypothalamus is a part of the brain that controls body temperature. Normal body temperature is 37°C.

At-risk groups

- The people who are most at risk from the effects of heat and cold are the elderly or infirm, babies and children.
- Severe hypothermia or heat stroke are potentially fatal conditions!

Hypothermia

This can occur when the body's core temperature falls below 35°C. A casualty suffering from hypothermia in its mildest form who is treated effectively will usually make a full recovery. If the body's core body temperature falls below 26°C the condition will most likely be fatal.

Causes of hypothermia

- The underlying cause is over-exposure to cold temperatures, however different conditions and types of situations will increase the risk.
- The hypothalamus of a baby or young child is underdeveloped, so hypothermia can result from as little as being left in a cold room.
- Elderly or infirm people do not generate as much body heat, so prolonged periods in a cold environment can lower the core temperature.
- Wet clothing, or immersion in cold water results in the body cooling much faster than it would in dry air.
- Water conducts heat away from the body.
- A person who is not clothed properly in windy conditions will have cold air continually in contact with the skin, resulting in faster cooling of the body.

Signs and symptoms

- Pale skin, cold to the touch
- Shivering at first, then muscle stiffness as the body cools further
- Slowing of the body's functions — including thought, speech, pulse and breathing
- Lethargy, confusion, disorientation 'lowered levels of response, eventually unconsciousness, then death

Treatment

For the unconscious casualty:

- Get help — call for the qualified first aider
- The qualified first aider will open the airway, check breathing and will resuscitate if necessary
- Dial 999
- Put casualty into the recovery position
- Place blankets under and around the casualty. Cover the head
- Constantly monitor breathing

For the conscious casualty:

- Remove any wet clothing; quickly replace with dry, warm garments
- Cover the head
- Wrap in warm blankets. Share your body heat with them
- Give the casualty warm drinks and food
- Seek medical advice
- Dial 999

Note:

- **Never give a casualty alcohol — it dilates blood vessels, which will make the casualty colder**
- **Never place direct sources of heat on or near the casualty — they draw blood to the skin, causing a fall in blood pressure and placing stress on the heart**
- **Never warm babies or the elderly too quickly — eg by placing them in a warm bath**

Beware:

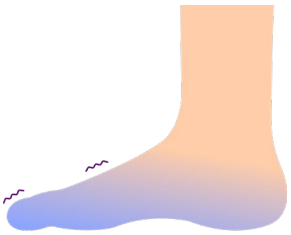
- **A hypothermic heart is in grave risk of cardiac arrest**
- **Handle hypothermic casualties with care as the slightest jolt can induce the condition**

Frostbite

This is a condition caused when an extremity (finger or toe) is exposed to cold conditions. The cells of the limb become frozen and ice crystals form in the cells, which causes them to rupture and die. This can result in the complete loss of a limb.

Signs and symptoms

- Pins and needles, followed by numbness
- Hardening and stiffening of the skin
- Skin colour change — first white, then blue tinges, then eventually black
- On recovery, the injury will become hot, red, blistered and very painful



Treatment

- Get help — call for the qualified first aider
- Gently remove rings, watches, etc
- Stop the freezing becoming worse — place the limb under their arm or hold it in your hands
- Do not rub the injury, it may cause damage
- Move the casualty to shelter
- Place the injury in tepid water
- Take the casualty to hospital as soon as possible

Note:

- **Never use direct or dry heat to warm injury**
- **Never re-warm the injury if there is a danger of re-freezing**

Trench foot

This is a condition caused by prolonged exposure to wet, cold conditions. The cells do not freeze, so full recovery is usual. The symptoms and treatment are similar to frostbite.

Chilblains

This is the most common cold injury, caused by exposure to dry cold. The cells do not freeze but may cause itching. The skin will be swollen and have a reddish-blue tinge and may develop blisters. Chilblains are treated in the same way as frostbite.

Heat exhaustion

This is the body's response to loss of water and salt through excessive sweating. The most common cause of this condition is working or exercising in hot conditions and it can occur when the core body temperature rises above 38°C. If the problem is not treated, it can quickly lead to heat stroke.

Signs and symptoms

- Confusion, dizziness
- Pale, sweaty skin
- Nausea, loss of appetite, vomiting
- Fast weak pulse and breathing
- Cramps in the arms, legs, abdomen
- The casualty may say that they 'feel cold', but they will be hot to touch

Treatment

- Get help — call for the qualified first aider
- Take the casualty to a cool place
- Remove excessive clothing and lay them down
- Give the casualty plenty of cool drinks of water
- Obtain medical advice
- If level of response deteriorates place them in the recovery position, dial 999 and monitor airway and breathing

Heat stroke

This is a very serious condition which results from failure of the hypothalamus in the brain. The sweating mechanism fails, the body is unable to cool down and the core temperature can reach dangerously high levels (over 40°C) within 10-15 minutes. The condition can be caused by a high fever or prolonged exposure to heat and often follows heat exhaustion.

Signs and symptoms

- Severe confusion and restlessness
- Flushed, hot, dry skin (no sweating)
- Strong, fast pulse
- Throbbing headache
- Dizziness
- Nausea, vomiting
- Reduction in levels of response leading to unconsciousness
- Possibility of fitting if unconscious

Treatment

- Get help — call for the qualified first aider
- Move casualty to a cool area
- Dial 999
- Cool the casualty rapidly
  - — using a cool wet sheet
  - — Sponging with cool water
  - — Spraying with cool water

Epilepsy and seizures

What is epilepsy?

A person diagnosed with epilepsy tends to have recurrent seizures (fits) that arise from a disturbance in the brain.

Seizures can result from a major disturbance in the brain, which can cause aggressive fitting, involving the whole body.

Signs and symptoms

- **Aura** — Warning sign may be anything from a taste in the mouth, a smell, or a peculiar feeling. The aura may give the person a chance to seek help or simply lie down before they fall.
- **'Tonic' phase** — Every muscle in the body suddenly becomes rigid. The back may arch, and the lips may go blue. This lasts for about 20 seconds.
- **'Clonic' phase** — The limbs of the body make sudden, violent jerking movements, the eyes may roll, the teeth may clench, saliva may drool from the mouth and breathing could be like 'snoring'. The person may lose control of the bladder or bowel.
- **Recovery phase** — The body relaxes, though the person is still unresponsive. Levels of response will improve within a few minutes, but the person may not be 'fully' alert for 20 minutes or so. They may be unaware of their actions and might want to sleep to recuperate.

Treatment

Get help — call for the qualified first aider

- During the seizure:
  - — Help the casualty to the floor to avoid injury
  - — Gently cushion the person's head to help avoid injury
  - — Loosen any tight clothing around the neck to help the casualty breathe
  - — Move away any objects from around the casualty that could harm them
  - — Ask bystanders to stand back
  - — Take note of time when seizure started

- Dial 999 for an ambulance if:
  - — The fitting lasts more than 3 minutes
  - — The casualty's level of response does not improve after the fit within 10 minutes
  - — The casualty has a second fit
  - — The casualty is not diagnosed as epileptic — If in doubt…get them checked out!

- As soon as fitting stops:
  - — Check airway and breathing — the qualified first aider will resuscitate if necessary
  - — Place the casualty in the recovery position and monitor airway and breathing
  - — Keep the casualty warm and reassure them
  - — Protect modesty

Note:

- **Never place anything in the casualty's mouth!**
- **Never try to hold the casualty down or restrain them**
- **Never move the casualty (unless they are in danger)**

Bites and stings

Insect bites and stings are rarely more than an irritation in the UK, but if you are abroad insects can pose a significant danger. While it is rare for people in the UK to be seriously injured by an animal or snake bite, it is important the casualty gets first aid and medical attention.

Snake bite

Adders are the most northerly distributed snake — they are the only species found inside the Arctic circle. They are also Britain's only venomous reptile.

Signs and symptoms

- Puncture marks
- Pain
- Swelling
- Vomiting
- Disturbed vision

Treatment

- Get help — call for the qualified first aider
- Call 999
- Lie casualty down, keep them calm and still
- Keep heart higher than level of bite
- Wash bite area with soap and water, and cover with sterile dressing
- Secure and support limb
- Try to identify type of snake to inform medical team

Bites: animal (human, cats and dogs)

Can be very frightening and distressing for the casualty. About 200,000 dog bites occur each year in the UK. Cat bites are less common.

Treatment

- Get help — call for the qualified first aider
- You should clean the wound no matter how small the cut to the skin
- There are many bacteria (germs) in animal mouths.

- Cleaning will reduce the chance of infection. If the wound is small, you can clean it yourself. Just use ordinary tap water. (There is concern that antiseptics may damage skin tissue and delay healing.)
- Wounds that are large, deep, or dirty are best cleaned by a nurse or doctor
- After cleaning, cover the wound with a sterile, non-sticky dressing and seek medical advice
- Call 999 if in doubt or serious injury

Complications following animal bite

- The most common complication following a bite is an infection of the wound.
- See a doctor if the skin surrounding a wound becomes more tender, painful, swollen, or inflamed over the next few days.
- Rarely, some bacteria can get into the bloodstream through a wound and cause a serious infection in the body.
- See a doctor if you become generally unwell with fever (high temperature), shivers, or other worrying symptoms within a week or so after a human, dog or cat bite.

Anaphylactic shock

What is anaphylactic shock?

This is an extremely dangerous allergic reaction caused by over-reaction of the body's immune system. Common allergies are to insect stings and bites, peanuts, seafood, etc.

Poisons

A poison can be described as any substance (solid, gas or liquid) that causes damage when it enters the body in a sufficient quantity.

- Can either be corrosive or non-corrosive
- Can enter the body in four ways:
  - — Ingested: swallowed, either accidently or on purpose
  - — Inhaled: breathed in, accessing the blood stream very quickly as it passes through the alveoli
  - — Absorbed tthrough the skin
  - — Injected through the skin, directly into tissues or a blood vessel

Types of poisons

- Corrosive — such as acids, bleach, ammonia, petrol, turpentine, dishwasher powder
- Non-corrosive — such as tablets, drugs, alcohol, plants, perfume

How can poisons enter the body?

- **Ingested** — swallowed, either accidently or on purpose
- **Inhaled** — breathed in, accessing the blood stream very quickly
- **Absorbed** — through the skin
- **Injected** — through the skin, directly into tissues or a blood vessel

Signs and symptoms

- Containers or bottles
- Tablets or drugs
- Syringe or drug-taking equipment
- Smell on breath
- Vomiting or retching
- Abdominal pains
- Burns (or burning sensation) around entry area
- Breathing problems
- Confusion or hallucination
- Headache
- Unconsciousness, sometimes fitting
- Cyanosis

Treatment

Get help — call for the qualified first aider. Please inform the qualified first aider if you know what the substance is.

If they know or suspect that a substance is corrosive, the qualified first aider will:

- Make sure it is safe to approach
- Dilute the substance or wash it away if possible if substance is on the skin
- If substance has been ingested — rinse out mouth, give sips of water or milk
- Dial 999
- If unconscious, check airway and breathing — the qualified first aider will resuscitate if necessary
- Place in recovery position and monitor airway and breathing

If they know or suspect a non-corrosive substance the qualified first aider will:

- Dial 999
- If casualty becomes unconscious, check airway and breathing — the qualified first aider will resuscitate if necessary
- Place into recovery position and monitor airway and breathing

Note: Never make the casualty vomit; this may put the airway in danger.

Minor eye Injury

- Small particles of dust or dirt can be washed out of the casualty's eye with cold tap water
- Ensure the water runs away from the good eye

Serious eye injury

Get help — call for the qualified first aider

- Keep casualty still and give them a sterile soft dressing to gently hold over the injured eye
- Carefully bandage if necessary
- Advise casualty to close good eye to minimise eye movement
- Dial 999 or take casualty to hospital

Chemical eye injury

Treatment

Wash out	Wash out with large amounts of clean water, ensuring water runs away from the good eye
Dial 999	For an ambulance
Treat	As a chemical burn

Meningitis

What is meningitis?

Meningitis is a very serious illness that can develop very quickly and become life-threatening if not treated quickly. About half of meningitis cases occur in children under five years of age, but young people aged 15-24 years are also at higher risk than the general population.

Causes of meningitis

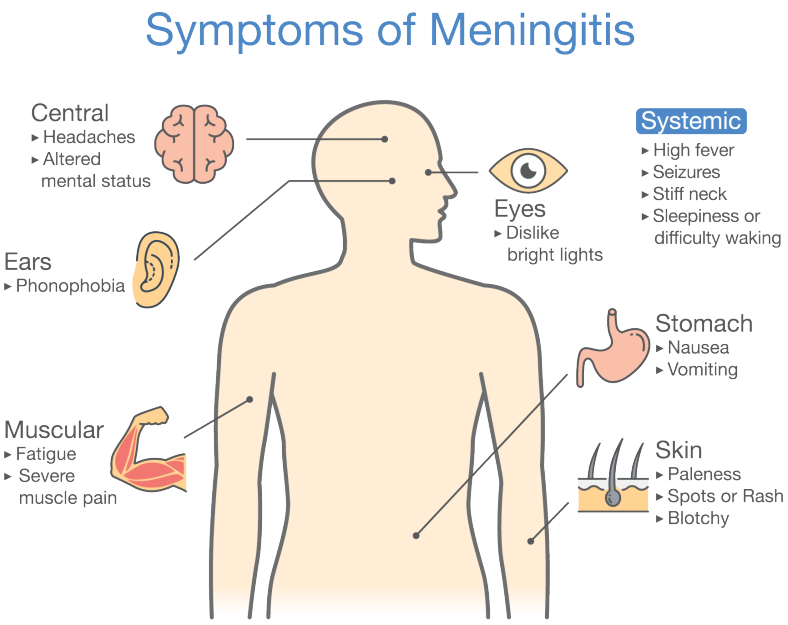
Meningitis happens when the lining of the brain (called the meninges) and spinal cord get infected and swollen. This can be caused by a bug, a virus or by bacteria. How serious it is depends on the bug causing it. Viral meningitis in most cases is not too serious and does not normally have lasting effects. Bacterial meningitis is much more serious. It can lead to you becoming very ill, very quickly. Anyone can get meningitis, but babies, children and young people are most at risk.

Signs and symptoms

A rash can sometimes appear on the skin which can look like bruises. If a First Aider suspects Meningitis, a quick test can be carried out using a glass. If the casualty has meningitis the purple blotches will **not** turn pale or fade when you press a glass over the top of them. If this is the case you need to call 999 straight away.

Signs and symptoms

- **Infant**
  - — Floppy
  - — Listless
  - — Reluctant to feed
  - — Bulging fontanel
  - — High pitched crying
- **Child**
  - — High temperature
  - — Experience flu-like symptoms
  - — Feel drowsy
  - — Vomit
  - — Headache
  - — Have a stiff neck
  - — Be sensitive to light
  - — Have a red or purple rash



Treatment

- Get help — call the doctor or dial 999 for an ambulance — explain to the call operator that you suspect meningitis
- The sooner treatment begins — the better the outcomes are for the casualty
- Early symptoms of meningitis can be difficult to spot — go back to your GP or local hospital if you are still unsure and concerned

Learner notes topic 8: employability skills

Working as part of a team

As part of your *Skills for Work* Course you will be working as part of different teams carrying out investigations, planning and contributing to presentations and taking part in group discussions. This will help you build the skills you will need if you get a job in the early learning and childcare sector or in any other sector.

Most people who work in early education and childcare work as part of a team. In some settings, like small playgroups, the teams can be small but in other settings, like large private nurseries, the teams can be large with twenty or more members sometimes split into smaller teams. Even people who seem to work on their own, like nannies, work with the parents as part of a team providing care for the child.

If everyone is to benefit in the team each member has to do their bit to ensure the team works well.

As teams are made up of people, and every person is different, it is not possible that you will share the same opinions and views as everyone in your team. In a team it is important to remember that everyone has different strengths and weaknesses and this is what makes a balanced team.

Here are some of the things you need to do to become a good team member:

- Contribute to team discussion and meetings
- Follow instructions carefully
- Ask for help
- Be enthusiastic
- Share your ideas
- Acknowledge the ideas of others
- Look for ways of helping other team members
- Be ready to do a little more than necessary to help out
- Be flexible

In a team everyone has different responsibilities and roles. These responsibilities and roles should be decided according to individual team members' strengths and weaknesses.

As part of your *Skills for Work* Course you will be asked to plan, implement and evaluate play for children and young people — working as part of a team, and part of this will be deciding in the team who is going to do what.

You will need to consider your role in the team because your behaviour can help to make the teamwork. Working with others is fun but you need to take your role seriously if you wish to succeed.

Each group will decide on how they will present this plan to the class.

Learner activities

Learner activities topic 1: introduction to basic first aid

Introduction to basic first aid activity 1

Think about what the questions below have to do with first aid?

Make notes in the spaces below on possible reasons of why these questions may be related to first aid.

Have you ever made a cup of tea?

Have you ever crossed the road?

What have you done today that could cause injury?

When you have completed this exercise, you will be asked to share your suggestions with the class.

Introduction to basic first aid activity 2

Health and safety executive

Think about what the Health and Safety Executive is.

Record what you think in the space below.

Your lecturer will now ask you to watch the video clip ‘The Health and Safety Executive Story'.

https://youtu.be/FZO8R9giCf0 (hse.gov.uk)

Make notes in the space below on ‘The Health and Safety Executive Story'.

When you have completed this exercise, you will be asked to share the information you have recorded with the class.

Your lecturer will now ask you to read the ‘Health and Safety Law What you need to know’ poster.

Make notes in the space below.

When you have completed this exercise, you will be asked to share the information you have recorded with the class.

Introduction to basic first aid activity 3

The lecturer will now ask you to look at ‘First aid – First aid at Work’.
https://www.hse.gov.uk/firstaid/index.htm (hse.gov.uk).

Make notes in the space below on ‘First aid – First aid at Work’.

Answer these questions in the spaces alongside.

Question	Answer
What is first aid?	
Why is first aid training important?	
What are the aims and objectives of first aid training?	

When you have completed this exercise, you will be asked to share the information you have recorded with the class.
Your lecturer will now ask you to read ‘First aid – NHS First aid at Work’
https://www.nhs.uk/conditions/first-aid/ (www.nhs.uk).

Work in small groups and answer the following questions in the spaces provided.

Questions	**Answers**
What should you do if someone is injured and conscious?	
What should you do if someone is injured and they are unconscious and breathing?	
What should you do if someone is injured and they are unconscious and **not** breathing?	
Can you think of any common accidents and emergencies?	

Introduction to basic first aid activity 4

First aiders

Read these testimonials from first aiders.

Nicole's story

'I helped a girl who was choking at the cinema.
At the time, I had all sorts of worries.
Was I doing more harm than good?
What if I did something wrong?
In the end I decided that if her life was in danger, it was better to do something than do nothing...
I'm glad I got involved now.
The doctor said if I hadn't acted so quickly, she would have been in a much worse state.
I don't want to think about what would have happened if I hadn't stepped up!'

Sam's story

When some scaffolding collapsed, Sam saw it happen…

'A **builder** was lying still in the dust. **His mate** was stumbling around stunned. There was blood pouring from his arm.
A **young woman** had been passing by. She had been hit by a piece of falling scaffolding. She was yelling that her arm was broken. Her **baby** was screaming in its push chair.'

Discussion

Consider the above scenarios and answer the following questions:

- What should you do if someone is injured? Is it best to just wait for an ambulance?
- If you needed first aid, would you want someone to help you?
- Is helping a stranger dangerous?
- Is first aid complicated?
- Can you be sued for getting it wrong?
- How do you know if you will ever need to use first aid?

Your lecturer will record your suggestions on a chart.

Make notes in the space below on class feedback.

Learner activities topic 2: first aid priorities

First aid priorities activity 1

Work in groups of two.

Answer the questions in the spaces below.

Questions	Answers
What is first aid?	
Why is first aid training important?	
Who is the most important person at the scene of an accident?	
How should we act and behave before we even get to treatment?	
What would you do if you were out and came across a first aid situation?	
What would be the first aid priorities?	

When you have completed this exercise, you will be asked to share the information you have recorded with the class.

First aid priorities activity 2

Discussion

- What do you think you should do if you were out and about and came across a first aid situation?
- What are the first aid priorities?

Your lecturer will record your suggestions on a chart.

Make notes in the space below.

How would you stay calm during a first aid incident?

Make notes in the space below.

Your lecturer will ask you to think about why you would make these assessments.

Make notes in the space below.

First aid priorities activity 3

Infection control

In a small group, discuss infection control in relation to first aid.

What infections might you pick up?

Make notes in the space below.

When you have completed this exercise, you will be asked to share the information you have recorded with the class.

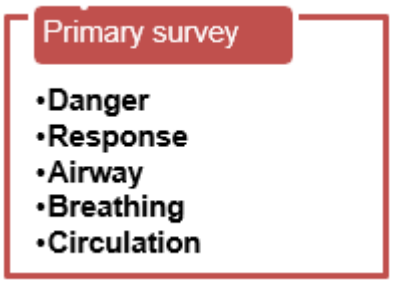
How would you prevent infection?

Make notes in the space below.

First aid priorities activity 4

Primary survey
What is a primary survey?

Make notes in the space below.



What needs to be considered when assessing a situation?

Make notes in the space below.

Your lecturer will now ask you to watch the video clip 'How to do a Primary Survey – First Aid Training – St John's Ambulance'.

https://youtu.be/Ykxa_BOBU1o

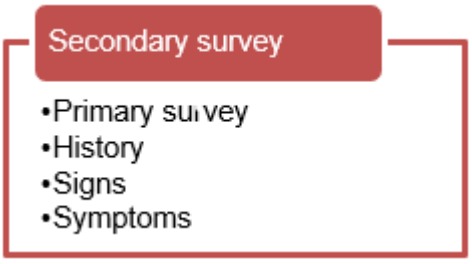
Make notes in the space below.

First aid priorities activity 5

Secondary survey

What is a secondary survey?

Make notes in the space below.



Your lecturer will ask you to create a flowchart of the secondary survey.

To help you to create a flow chart your lecturer will ask you to read How to do the secondary survey - Emergency First Aid | St John Ambulance (sja.org.uk)

Your lecturer will ask you to hand in your secondary survey flowchart.

Delivery notes topic 3: priorities of treatment

Priorities of treatment activity 1

Recovery position

Create a poster of the step-by-step approach to the recovery position.

To help you to create your poster your lecturer will ask you to look at the 'What to do — unresponsive adult' poster

https://www.sja.org.uk/globalassets/first-aid posters/what_to_do_unreponsive_adult_poster.pdf (sja.org.uk)

and 'What to do unresponsive baby' posters.

https://www.sja.org.uk/globalassets/first-aid-posters/what_to_do_unresponsive_baby_poster.pdf (sja.org.uk)

Priorities of treatment activity 2

Recovery position

Your lecturer will ask you to watch the video clips:
The Recovery Position – First Aid Training (St John Ambulance)

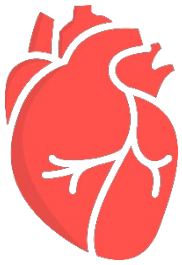
https://youtu.be/GmqXqwSV3bo

How to put Your Baby in the Recovery Position – First Aid Training (St John Ambulance)
https://youtu.be/NupCeGFUuoo

In small groups, make notes in the space below on what you have learned about the recovery position.

Your lecturer will ask you to feedback to the class.

Priorities of treatment activity 3



Healthy heart

Watch the video clip ‘How does a healthy heart work? (British Heart Foundation)

https://youtu.be/ep4cQrYFL0w

Make notes in the space below on how a healthy heart works.

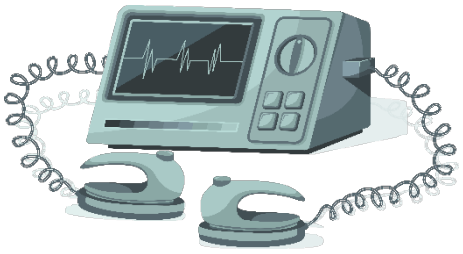
Priorities of treatment activity 4

Using a defibrillator

Work in small groups.

Create an information leaflet or poster on how to ‘Use a defibrillator’.

Your lecturer will ask you to present your leaflet or poster to the class and to hand it in.



Priorities of treatment activity 5 — practical session

Work in groups of 2.

Your lecturer will have asked you to bring in a teddy or a doll to use as a casualty.

This is an activity designed to draw on your learning of basic first aid.

You will be asked to observe a group member carrying out the basic first aid checks. Each group member will take it in turns.

Complete the observation checklist on the next page.

Priorities of treatment activity 6

Advice for first aiders

Your lecturer will provide you with a first aid incident.

Create a leaflet on the management of the first aid incident.

You should include:

- the risks to first aiders and others
- how the first aider can keep themselves safe while attending a first aid incident

To help you with this activity your lecturer will ask you to look at the following websites.

- https://www.gov.uk/government/publications/novel-coronavirus-2019-ncov-interim-guidance-for-first-responders/interim-guidance-for-first-responders-and-others-in-close-contact-with-symptomatic-people-with-potential-2019-ncov

- https://www.redcross.org.uk/first-aid/learn-first-aid/covid-19-guidance

- https://www.sja.org.uk/get-advice/first-aid-advice/covid-19-advice-for-first-aiders/

Your lecturer will ask you to hand in the completed leaflet.

Observation checklist

Name:

Date:

Observation	Practice	Notes
Four Ps P = P = P = P =		
D =		
R =		
A =		
B =		
C =		
S =		
A =		
M =		
P =		
L =		
E =		
Level of response A = V = P = U =		
Breathing		
Pulse		
Temperature		
Opening airway		
Recovery position Adult Child		
Life-saving priorities H = CPR D = Advanced care		

Your lecturer will ask you to hand in the completed observation checklist.

Priorities of treatment activity 7

Answer the questions below.

How would you prioritise casualties?
How would you use the secondary survey to prioritise treatment?

Make notes in the space below.

Your lecturer will ask you to feedback to the class.

What does ‘unconscious’ mean? Make notes in the space below.

Priorities of treatment activity 8

Complete the words relating to the main causes of unconsciousness.

F _ _ _ _ _ _ _ _

I _ _ _ _ _ _ _ B _ _ _ _ _ _ _

S _ _ _ _

H _ _ _ I _ _ _ _ _

S _ _ _ _ _

H _ _ _ _ A_ _ _ _ _

A _ _ _ _ _ _ _

P _ _ _ _ _ _ _ _

E _ _ _ _ _ _ _ _

D _ _ _ _ _ _ _

Learner activities topic 4: assessing levels of response

Assessing levels of response activity 1

What action should be taken when treating an unconscious casualty?

What does a first aider need to consider before moving a casualty?

Read your learner notes on primary and secondary surveys.

Record your answers in the space below.

Assessing levels of response activity 2 — practical session

Recovery position

Read the learner notes on the recovery position and to look at the website link:
Unresponsive Casualty - CPR & Recovery Position | St John Ambulance (sja.org.uk)

Work in groups of 2.

Your lecturer will have asked you to bring in a teddy or a doll to use as a casualty.

Each group member will take it in turns to carry out placing a person in the recovery position.

You will be asked to observe a group member placing a person in the recovery position.

Complete the observation checklist.

Observation checklist

Name:

Date:

Steps	Practice notes
1 Kneel beside the casualty.	
2 Straighten the casualty's arms and legs.	
3-Fold the arm closest to you over the casualty's chest.	
4 Place the other arm at a right angle to the casualty's body.	
5 Bend the leg closest to you.	
6 Support the casualty's head and neck. Gently take the bent knee closest and gently roll the casualty away from you. Adjust the upper leg so both the hip and knee are bent at right angles. Make sure the casualty cannot roll.	
7 Tilt the head back and make sure the airways are clear and open.	

Your lecturer will ask you to hand in the completed observation checklist.

Assessing levels of response activity 3

Head injuries

Work in groups of 3 or 4.

Your lecturer will allocate a head injury for you to investigate.

You can use your learner notes on, books in the classroom or look at the website link:

Head Injuries in Adults, Babies & Children | St John Ambulance (sja.org.uk).

Create a PowerPoint presentation.

Use the questions below to help you with your investigation:

Group 1

- What is concussion?
- What are the signs and symptoms of concussion?
- How do you treat concussion?

Group 2

- What is compression?
- What are the signs and symptoms of compression?
- How do you treat compression?

Group 3

- What is a fractured skull injury?
- What is the treatment of a serious head injury?

Your lecturer will ask you to present your presentation to the class.

Assessing levels of response activity 4

Strokes

Your lecturer will ask you to investigate strokes.

Create a mind map, leaflet or poster.

Use the learner notes, classroom books or the website link: Stroke - Warning Signs & First Aid Advice | St John Ambulance (sja.org.uk).

Use the following questions:

- What is a stroke?
- What are the signs and symptoms of a stroke?
- How would you treat a stroke?
- How would you recognise a stroke?

Your lecturer will ask you to present your work to the class.

Learner activities topic 5: first aid conditions

First aid conditions activity 1

Airways and breathing problems

Your lecturer will allocate an airway and breathing condition to each group.

Use the following questions to help you with your investigation:

Group 1 — anaphylaxis

- What is anaphylaxis?
- What are the effects of histamines?
- What are the signs and symptoms of anaphylaxis?
- How would you treat anaphylaxis?

Group 2 — asthma

- What is asthma?
- What are the signs and symptoms of asthma?
- How would you treat asthma?

Group 3 — drowning

What is drowning?
What is secondary drowning?
What is the treatment of drowning?

Group 4 — choking

- What is choking?
- What are the signs and symptoms of choking?
- How would you treat an adult that is choking?
- How would you treat an infant that is choking?

Your lecturer will ask you to use the learner notes, classroom books or the website links to help you with the investigation:

Choking First Aid - First Aid Advice | St John Ambulance (sja.org.uk)

Breathing Difficulties - First Aid Advice | St John Ambulance (sja.org.uk)

Heart Conditions - Heart Attacks & Cardiac Arrest | St John Ambulance (sja.org.uk)

Hot & Cold Impacts - First Aid Advice | St John Ambulance (sja.org.uk)

Create a PowerPoint presentation. Your lecturer will ask you to present to the class.

First aid conditions activity 2

Circulation problems

Work in groups of 3.

You will be allocated a cause circulation problem.

Investigate the circulation problem.

To help you with this task your lecturer will set each group three questions to investigate:

Group 1 — angina

- What is angina?
- What are the signs and symptoms of angina?
- How would you treat angina?

Group 2 — heart attack

- What is a heart attack?
- What are the signs and symptoms of a heart attack?
- How would you treat a heart attack?

Group 3 — shock

- What is shock?
- What are the signs and symptoms of shock?
- What is the treatment for shock?

Group 4 — fainting

- What is fainting?
- What are the signs and symptoms of fainting?
- How would you treat fainting?

Your lecturer will advise you to use your learner notes, classroom books or the website links to help with your investigation.

Create a mind map of your investigation.

Learner activities topic 6: bleeding, burns and bones

Bleeding, burns and bones activity 1

External bleeding

What are the types of internal and external bleeding?

Make notes in the space below on internal and external bleeding.

What are the possible effects of blood loss?

Record your answer in the space below.

What types of wounds could a person have?

Make notes in the space below.

What other incidents and accidents can cause bleeding?

Make notes in the space below.

Your lecturer will ask you to feedback to the class.

Bleeding, burns and bones activity 2

Internal bleeding

What is internal bleeding?

Make notes in the space below.

Your lecturer will ask you to investigate the signs and symptoms of internal bleeding.

Use the space below to record your findings on the signs and symptoms of internal bleeding.

Your lecturer will ask you to feedback to the class.

Bleeding, burns and bones activity 3

Burns and scalds

What types of burns and scalds are there?

Make notes in the space below.

How do we estimate the severity of a burn?

Use the space below to record your answer.

Your lecturer will ask you to feedback to the class.

Bleeding, burns and bones activity 4

Injuries to bone, muscles and joints

Make notes in the space below about the different types of bone fractures.

What are the possible signs and symptoms of a bone fracture?

Create a mind map or poster of the signs and symptoms of a bone fracture.

Bleeding, burns and bones activity 5 — practical session

Strains and sprains

Work in small groups.

Your lecturer will allocate a specific strain or sprain injury to you.

This is an activity designed to draw on your learning of the treatment of a strain or a sprain.

Each group member will take it in turns to treat an example of a strain or sprain.

Bleeding, burns and bones activity 6

Spinal injuries

Your lecturer will ask you to investigate the signs and symptoms of a spinal injury.

Use the space below to make notes.

Learner activities topic 7: injuries and conditions

Injuries and conditions activity 1

Effects of exposure on body temperature

Work in groups of 2.

You will be allocated an ‘effects of exposure’ condition to investigate.

To help you with this task your lecturer will set each group three questions and ask you to use your learner notes, classroom books and the internet.

Group 1

- What are the causes of hypothermia?
- What are the signs and symptoms of hypothermia?
- What is the treatment for hypothermia?

Group 2

- What is frostbite?
- What are the signs and symptoms?
- What is the treatment for frostbite?

Group 3

- What is trench foot?
- What are the signs and symptoms?
- What is the treatment for trench foot?

Group 4

- What are chilblains?
- What are the signs and symptoms?
- What is the treatment for chilblains?

Group 5

- What is heat exhaustion?
- What are the signs and symptoms?
- What is the treatment for heat exhaustion?

Group 6

- What is heat stroke?
- What are the signs and symptoms of heat stroke?
- What is the treatment for heat stroke?

Create a PowerPoint presentation.

Your lecturer will ask you to present your investigation to the class.

Injuries and conditions activity 2

Epilepsy and seizures

Your lecturer will ask you to investigate epilepsy.

Create a poster to inform people on the signs and symptoms of epilepsy and how to treat it.

Your lecturer will ask you to hand in your poster.

Injuries and conditions activity 3

Anaphylactic shock

What is anaphylactic shock? Write what you think it is in the space below.

Your lecturer will ask you to feedback to the class.

Injuries and conditions activity 4

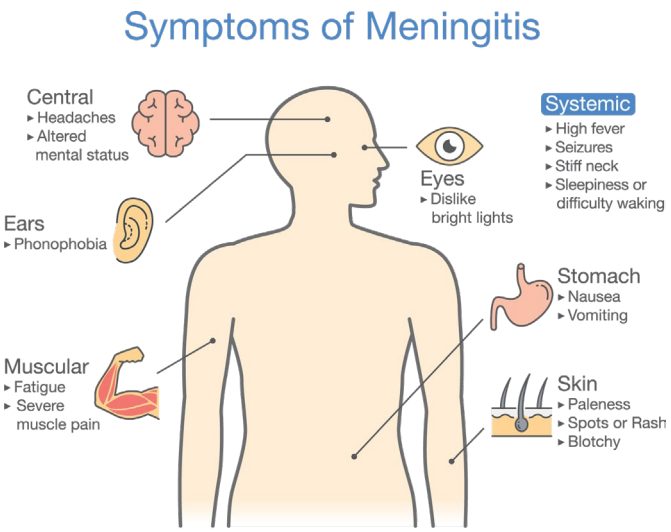
Meningitis

Your lecturer will ask you to investigate meningitis and to create a mind map on meningitis.

The mind map should include:

- a description
- the signs and symptoms in children and infants
- the treatment

Use the learner notes, classroom books and the internet.



Your lecturer will ask you to hand in your mind map.

Learner activities topic 8: employability skills

Self-evaluation

Skills used in teamwork include listening skills, communication skills, negotiating skills, problem-solving skills, decision making, organisational skills, and health and safety awareness.

Which of these skills were used when planning first aid incidents?

Evaluate the part **you** played in planning and implementing one first aid incident.

Did you **contribute ideas** in **planning** first aid incidents? If so, which ideas did you contribute?

What skills did you use in your role in the **implementation** of first aid incidents? Did you **play a part** in preparation for the first aid incident? If so, what did you do? What was your contribution?

What was your role **during** the first aid incident? What did you do? Did you do it well?

What was your role at the end of the first aid incident? What skills did you demonstrate?

What were your strengths when planning and implementing the first aid incident? What did you do well? What skills did you use?

What do you feel are areas in which you could improve? What could you do better?

Review your own contribution to group planning and group presentation in terms of strengths and areas for improvement.

You are being asked to consider what you did and how well you did it!

When considering your contribution to the group plan, think of ways you could contribute to a plan.

- Putting forward suggestions for the ways in which your plan can be presented
- Listening to others
- Responding to the suggestions of others and building on their ideas
- Gathering information
- Sharing information
- Communicating clearly
- Helping others carry out an idea
- Making drawings
- Working on the computer
- Co-operating with others
- Thinking of possible difficulties and problem solving

You can perhaps think of other ways people can contribute to plans.

My contribution to the group plan — what I did:

When considering your contribution to the group presentation, think of ways you contributed to this part of the work. You may have:

- constructed a poster
- made drawings
- made signs
- drawn a chart
- written out part of the dialogue
- put forward ideas when deciding on the form of presentation
- made a model
- delivered the plan to the class, actually speaking about the plan

You can perhaps think of different ways of contributing to a group presentation.

My contribution to the group presentation — what I did:

Glossary

Airways — The passage by which air reaches a person's lungs.

Ambulance — A vehicle used to transport sick or injured people with medical needs.

Anaphylaxis — Is an extremely dangerous allergic reaction. The condition is caused by a massive over-reaction of the body's immune system.

Anaphylactic shock — Anaphylaxis resulting in a collapse of the circulatory system and a dangerous decrease in blood pressure. Anaphylactic shock is a life-threatening reaction that requires immediate treatment.

Angina — Chest pain brought on by physical exertion or anxiety due to narrowing of the arteries in the heart.

Asthma — Is a condition caused by an allergic reaction in the lungs, often to substances such as dust, traffic fumes or animal hair.

Automated external defibrillator — A device that delivers a controlled electrical shock to the heart in order to restore its normal rhythm.

Breathing — Is the process that moves air in and out of the lungs.

Broken bone — A bone fracture is a medical condition in which there is a break in the bone.

Bruising — To injure the underlying soft tissue or bone of without breaking the skin.

Burn — A burn is a type of injury to flesh caused by heat, electricity, chemicals, light, radiation or friction.

Cardiopulmonary resuscitation — The emergency substitution of heart and lung action to restore life to someone who is not breathing or showing any vital signs of being alive.

Chest compressions — The act of pushing on the chest during cardiopulmonary resuscitation. Chest compressions help push blood through the heart and surrounding blood vessels.

Chilblains — Inflammation of small blood vessels on the skin caused due to repeated exposure to cold.

Choking — Choking is the blocking of an airway due to a foreign object lodged in the throat or windpipe.

Circulation — The continuous motion by which the blood travels through all parts of the body under the action of the heart.

Compression — An injury to the head that causes compression of the brain. This can be due to swelling of the brain itself or bleeding into the skull.

Concussion — An injury to the brain which causes ‘shaking’ or ‘jarring’ of the brain.

Cuts — Severed skin.

Epilepsy — A medical condition characterised by repeated seizures.

Epileptic seizure — An epileptic seizure, occasionally referred to as a fit, is defined as a transient symptom of ‘abnormal excessive or synchronous neuronal activity in the brain’.

First aid — Simple emergency medical care procedures intended for lay rescuers to perform before emergency medical professionals are available.

Fracture — A fracture is the separation of an object or material into two, or more, pieces under the action of stress.

Frostbite — Damage to tissues from freezing due to the formation of ice crystals within cells, rupturing the cells and leading to cell death.

Heart — The muscle that pumps blood received from veins into arteries throughout the body.

Heart attack — The death of heart muscle due to the loss of blood supply. The loss of blood supply is usually caused by a complete blockage of a coronary artery, one of the arteries that supplies blood to the heart muscle.

Heat exhaustion — A warning that the body is getting too hot.
Heat stroke — A medical condition caused due to overheating of the body. If untreated, it can damage brain, heart, kidneys and muscles.

Hypothermia —A condition of having a lower body temperature than normal body temperature. It causes excessive shivering, slowed breathing, mumbled speech, confusion, drowsiness and weak pulse.

Internal bleeding — Is bleeding occurring inside the body. It can be a serious medical emergency depending on where it occurs (eg brain, stomach, lungs), and can potentially cause death and cardiac arrest if proper medical treatment is not received quickly.

Medical condition — A condition may also be a disease or a sign of a disease.

Meningitis — A life-threatening medical condition where the protective coverings of the brain become infected and inflamed.

Paramedic — A certified healthcare provider who is trained to treat and transport victims of emergencies. Paramedics provide advanced life support to victims.

Primary survey — A position where the casualty is laying on their side to protect their airway.

Qualified first aider — individual who has completed a recognised learning programme or qualification and has attend refresher courses to meet the requirements of the Health and Safety Executive approved Workplace First Aider

Recovery position — A position where the casualty is laying on their side to protect their airway.

SEEP — Is a process to help the treatment of bleeding. Sit or lay, Examine, Elevate, Pressure.

Secondary survey — A more detailed assessment of a patient involving checking for injuries and taking observations.

Seizure — Abnormal or excessive activity in the brain that can cause a variety of symptoms such as muscle movement, unconsciousness and rigidity.

Shock — Is a lack of oxygen to the tissues of the body, which is caused by a fall in blood volume or blood pressure.

Sprain — Any injury where fibres of a ligament are stretched or torn.

Strain — Any injury where a muscle or tendon is stretched or torn.

Stroke — A stroke, is the rapidly developing loss of brain functions due to disturbance in the blood supply to the brain.

Trench foot — A painful condition of the feet caused by long immersion in cold water or mud and marked by blackening and death of surface tissue.

Unconsciousness — Is the condition of being not conscious — in a mental state that involves complete or near-complete lack of responsiveness to people and other environmental stimuli. Being in a comatose state or coma is a type of unconsciousness.

Wound — A wound is a type of injury in which skin is torn, cut or punctured (an open wound), or where blunt force trauma causes a contusion (a closed wound).

Resources

Resources required for workshop/practical sessions

Materials/equipment	**Source/supplier**
First aid kit	
Plasters	
Bandages	
Doll	
Disposable gloves	
Disposable aprons	
Disposable face masks	
Hand sanitiser	

Useful texts, journals, videos, and websites

Texts

DK (2021). *First Aid Manual: Written and Authorised by the UK's Leading First Aid Providers*. 11th Ed. DK

Videos

https://youtu.be/FZO8R9giCf0

https://youtu.be/ea1RJUOiNfQ

https://youtu.be/uZYptqxfZ1E

https://youtu.be/GmqXqwSV3bo

https://youtu.be/NupCeGFUuoo

https://youtu.be/ep4cQrYFL0w

https://youtu.be/8A0kljQU48U

Websites

Health and safety law (leaflet) (hse.gov.uk)

Social distancing poster (yas.nhs.uk)

emergency_first_aid_advice_poster.pdf (sja.org.uk)

what_to_do_unreponsive_adult_poster.pdf (sja.org.uk)

what_to_do_unresponsive_baby_poster.pdf (sja.org.uk)

Defibrillators (AEDs and PADs) - how and why to use them | British Heart Foundation (bhf.org.uk)

https://www.gov.uk/government/publications/novel-coronavirus-2019-ncov-interim-guidance-for-first-responders

Covid-19 first aid guidance (redcross.org.uk)

Covid-19 first aiders advice | St John Ambulance (sja.org.uk)

Head Injuries in Adults, Babies & Children | St John Ambulance (sja.org.uk)

Stroke - Warning Signs & First Aid Advice | St John Ambulance (sja.org.uk)

Unresponsive Casualty - CPR & Recovery Position | St John Ambulance (sja.org.uk)

Breathing Difficulties - First Aid Advice | St John Ambulance (sja.org.uk)

Heart Conditions - Heart Attacks & Cardiac Arrest | St John Ambulance (sja.org.uk)

Hot & Cold Impacts - First Aid Advice | St John Ambulance (sja.org.uk)

Choking First Aid - First Aid Advice | St John Ambulance (sja.org.uk)

First Aid for Bleeding - First Aid Advice | St John Ambulance (sja.org.uk)

Bones and Muscles Injuries - First Aid Advice | St John Ambulance (sja.org.uk)

Minor Illnesses & Injuries - First Aid Advice | St John Ambulance (sja.org.uk)

Diabetic Emergencies - First Aid Advice | St John Ambulance (sja.org.uk)

Meningitis - Symptoms & First Aid Advice | St John Ambulance (sja.org.uk)

Seizures Symptoms & Treatment - First Aid Advice | St John Ambulance (sja.org.uk)

Severe Allergic Reaction - Symptoms & Treatment | St John Ambulance (sja.org.uk)

Poisoning Symptoms & Treatment - First Aid Advice | St John Ambulance (sja.org.uk)

Paediatric First Aid - CPR, Choking & More | St John Ambulance (sja.org.uk)

Image acknowledgements

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Shutterstock ID: 392644273 recovery position p27, 112
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Shutterstock ID: 582475678 burn p83
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