

# **CUB SCOUT FIRST AID**



**First Aid**  
**For 8-11 Year Olds**

## **Acknowledgements**

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- Hatfield Rover Crew
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The information contained within this work is correct, to the best of the author's knowledge, at the time of publication. Please do not hesitate to contact the author with questions, comments and suggestions regarding this book. Your feedback is very much appreciated.

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# Introduction

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This book is to help Cub Scout Leaders, parents, teachers and other adults teach 7½ - 11 year old Cub Scouts first aid. In a perfect world only the fifth chapter of this book 'Prevention is better than cure' would be of any use. However, accidents do happen so in the words of Scouting's founder Baden Powell we must always "Be Prepared". This book will prepare Cub Scouts or any young person of the Cub age range for the emergencies most likely to occur at their school, in their home, on the sporting field and during more adventurous outdoor activities.

The information covers the Health and First Aid sections of the Bronze, Silver and Gold boomerangs, and the Level 1 and Level 2 First Aider achievement badges of the Cub Scout Award Scheme. Details of these sections of the award scheme can be found in "The Cub Scout Record Book" as published by The Scout Association of Australia, and are summarised at the end.

Nowhere else in all the many activities of the Scouting Movement is its motto more important than in the field of first aid. If you are always prepared, when you find yourself in an emergency your first aid skills and knowledge may well save the day.

Some words used in this book to understand before you get started:

- **First aid:** Everything that you do to help someone who has been injured before more experienced help arrives, such as the ambulance.
- **Emergency:** A situation where someone needs first aid and without it they might have a permanent injury or even die.
- **Casualty:** An injured person who needs first aid.
- **Emergency services:** Fire, police and ambulance officers who are trained in dealing with emergencies.

# 1. Being Prepared

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Hopefully you're lucky enough to have never been in a car accident. Even if you haven't, you still put on your seatbelt without thinking every time you get into a car (and if you don't put one on you're breaking the road rules!). In the same way, even though you might have never been injured in an accident or emergency, you should be prepared for when an accident does happen. The first way to be prepared is to make sure you know what to do in an emergency. The second is to make sure you have the equipment you need to help people.

## First aid kits

The first step to being able to do first aid is to have the equipment to do it. How much you have inside your first aid kit depends on your knowledge, the size of the container and what you're doing. If you're going on a day hike you may only need a basic kit that you can keep in the car or your backpack. If you're on a camp and doing some rock-climbing you'd probably want an advanced kit with all the extras. Younger Cubs will only need to be familiar with the items in a basic kit, older Cubs who are nearing Scout age should become familiar with the intermediate and advanced items.



## Basic

With this kit you can treat:

- Minor and major bleeding
- Abrasions
- Burns and scalds
- Bites and stings
- Sprains, strains and fractures

<u>Item</u>	<u>Description</u>	<u>What it's for</u>
Basic first aid book	Like this one!	In case you need information quickly
Band-Aids	Have a few different sizes	For small cuts
Sterile wound dressings	Clean piece of fabric, comes in plastic sleeve	For covering grazes and burns
Sterile pads	Clean thick pieces of fabric,	For absorbing blood and

	comes in plastic packet	drying wounds
Antiseptic solution	Such as povidone-iodine, kills germs	Putting on wounds to stop infections
Scissors	Small pair	For cutting tape and dressings to size
Adhesive tape	Sticky tape is ok	For sticking dressings down
Triangular bandage	Cloth triangle-shaped bandage	For making slings
Crepe bandage	3-4m long cloth bandage	For rolling over injuries

## Intermediate

With this kit you can also:

- Remove splinters
- Wash wounds before dressing
- Protect yourself
- Go hiking more safely
- Treat hypothermia

<u>Item</u>	<u>Description</u>	<u>What it's for</u>
Tweezers	Keep them clean and rust-free	To get rid of splinters
Disposable gloves	Plastic latex or nitrile gloves	To keep blood off you
Thermal blanket	Big silver-coloured sheet	To keep someone warm
Saline	Tube of salt water	To wash cuts and grazes
Pencil and paper	A small pad with pencil	To write what happened
Salt	Keep in a waterproof container	To get rid of leeches
Whistle	Even a small plastic one will do	To attract attention

## Advanced

For older Cub Scouts (aged 10+ or younger Scouts). With this kit you can also:

- Keep larger wounds closed
- Treat hypothermia better
- Treat strains and sprain better
- More safely go hiking

<u>Item</u>	<u>Description</u>	<u>What it's for</u>
Steri-strips	Clean tape that sticks well to skin	For closing cuts when help's far away
Chemical ice pack	Plastic single-use ice pack that's activated by breaking a seal inside the pack	For sprains, strains or deep cuts
Glow stick	Plastic glowing light that's activated by bending	To attract attention at night if you're lost

## 2. In an Emergency

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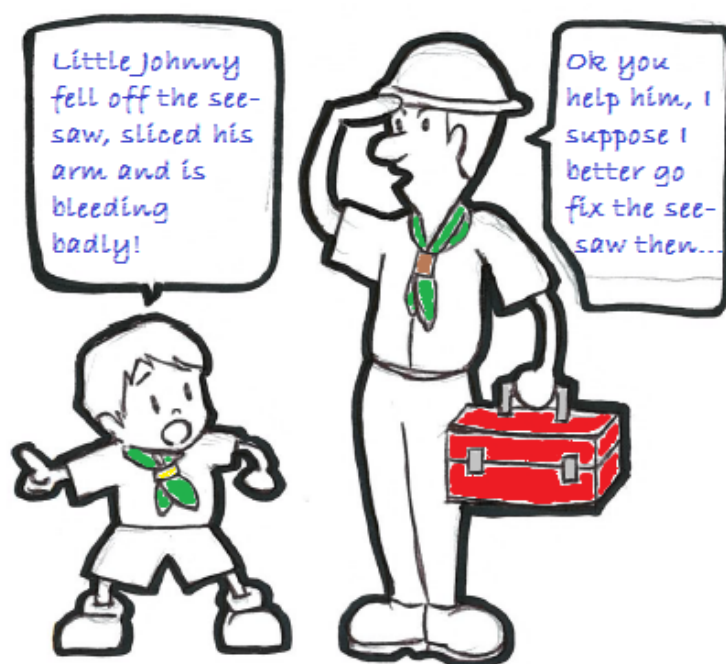
“There’s an emergency! The internet’s not working again!”

While sometimes ‘an emergency’ may not be that urgent, some emergencies such as car accidents and house fires are very serious with people being hurt and even dying if no one helps them. If you’re the first person at an emergency there are some things that even you as a young person can do. By acting fast you might even save someone’s life.

### Adult help

Adults are usually less fun than kids and they’re always telling you what to do, but in an emergency they’re often very useful. This is because:

- 1) An adult will likely have more first aid knowledge than you so may be able to give better care to the injured person/people.
- 2) Adults are physically bigger so may be able to do things like move and lift the injured person, which may be too difficult for you.
- 3) An adult may be more likely to stay calm and remember what to do in an emergency.





However, your first aid knowledge is not useless. In fact, you may be the most experienced first aider at the emergency. In that case it is still extremely important to get adult help, but you may have to direct the adults in treating the casualty, in which case your first aid knowledge will be vital. Also, there may not be any adults around to help you anyway. So you need to make sure your first aid knowledge is always up to date, so that you can help in any emergency.

## Emergency services

Sometimes, even with adult first aid help, the injured person needs medical help. For this, you need to call emergency services. In Australia, the emergency number is 000, which can be dialled from any phone in Australia. The international standard emergency number is 112 and can be dialled from most phones in the world. In 2013 there were 80 countries that used this number.

To decide whether you need to call 000, think about these questions. If the answer is yes to any of them, call 000.

- Is someone seriously injured or in need of medical attention?
- Is your life or property being threatened?
- Have you just witnessed a serious accident or crime?



When you call you will be asked which service you need – fire, police or ambulance. For most first aid emergencies, ambulance will be the answer. You will then be asked some questions about the emergency, which may include:

- What is the exact location of your emergency?
- What is your call-back number?
- What has happened?
- How many people are hurt?
- If someone is hurt, how old are they?
- Are they conscious?
- Are they breathing?

Follow any instructions given by the person you are speaking to. Make sure you don't hang up until they tell you to. If there is anything you don't hear properly or don't understand, ask them to repeat it for you.

## **Approaching a casualty**

When you cross the road you always look and listen for traffic before you start to walk. It wouldn't make much sense to start walking and then look for traffic! In the same way, in an emergency it is important to do things in the order of how important they are.

To help us remember things we sometimes use what's called an acronym, where each of the letters of a made up word stand for something we need to do. In first aid we use the acronym **DRS ABCD** (pronounced "Doctors A B C D"), which stands for: Danger, Response, Send for help, Airways, Breathing, Compressions, Defibrillation. Since you are too young to safely do Compressions, and Defibrillation can be dangerous to the first aider, we will only discuss DRS AB here.

**D – Danger:** The most important person to look after in an emergency is actually not the casualty but yourself. This is because if you get injured trying to help someone, not only are you now useless to the casualty, but further first aiders must divide their attention between two casualties instead of just one. Dangers you should look for include motor vehicles, electrical wires, sharp objects, venomous animals and anything that might hurt you. If you can get rid of the danger, e.g. safely turn off the power, block off the road with traffic cones, do so. If you can't, do not approach the casualty. When you are sure there is no danger to you, continue.

**R – Response:** While a person who appears to be unconscious may need your help, they could just be sleeping, so you should check to see if the casualty is responding to you before doing anything else. To check response we Talk to and Touch the casualty.

- **Talk:** If the casualty is not alert, call out loudly to the casualty using their name if you know it.
- **Touch:** If the casualty doesn't respond when you talk loudly, touch them on the shoulder in the same way that you would try and wake someone who was sleeping. If you are not sure if they responded, you can firmly squeeze the fingernails of both hands, then firmly rub the middle of their forehead.
- If the casualty does not respond to you talking to and touching them, continue. If they respond but have a serious injury or you are worried about them, continue.



**S – Send for help:** At this point it's important to get adult help. If you have an unconscious casualty, always call 000. However, some casualties may be responding but have a serious injury that means you should still call 000. While you're waiting for help to arrive, continue.

**A – Airways:** An unconscious casualty cannot protect their airways. To protect it for them, you usually need to place them in the recovery position, explained below. First look in the casualty's mouth for any solid matter such as vomit or a broken tooth and remove it. Then use one hand on their chin to hold their mouth open and sweep the front of the mouth with 2-3 fingers for anything you couldn't see. If they have loose dentures, remove these but well-fitting dentures can safely be left alone. If you have gloves in your first aid kit, put these on before putting your fingers in the casualty's mouth and use your other hand to hold the mouth open while sweeping. Don't put

anything other than fingers in their mouth (because if you leave something in there it might block off their airway, but if you only use your fingers you're definitely not going to leave them in their mouth!). Once the airway's clear, continue.

**B – Breathing:** Breathing is necessary for life and someone who is not breathing needs urgent resuscitation as soon as possible. To check for breathing:

- Look for movement of the lower chest and upper abdomen.
- Listen for the sound of breathing at the casualty's nose and mouth.
- Feel for movement of the lower chest and upper abdomen and feel for air coming out of the casualty's nose and mouth.

If the casualty is breathing, observe them. If they are taking fewer than 10 breaths a minute or their breaths are very shallow, they may not be breathing well enough to keep them alive and may need resuscitation, so get adult help. If they are breathing, keep them warm and in the recovery position, and wait for help to arrive.

## **The recovery position**

To a professional AFL footballer, the "recovery position" after a match usually means standing in freezing water at the beach the next morning. While putting someone in cold water would definitely check for their response, it's hardly the best place to do first aid!

Instead, we place unconscious casualties on their side in a position that is stable, allows any vomit to drain out of their mouth, and stops their tongue from flopping back in their throat and blocking their airway. Since this is usually the safest position for a casualty to recover in, it is called the recovery position. To place someone in the recovery position:

- 1) Check to see which side of their body is least injured. You will be rolling them towards that side.
- 2) Kneel down on the other side of the casualty; you will be rolling them away from you. The side of the casualty that is closest to you we will call the near side and the side furthest from you we will call the far side.
- 3) Place the casualty's far arm out at a right angle to their chest.
- 4) Place the near arm across the casualty's chest with the fingers resting on the opposite shoulder.

- 5) Bring up the near knee until the near leg makes a right angle and support the thigh with your hand.
- 6) With your other hand, lift under the casualty's shoulder and gently roll them away from you onto their side.
- 7) Keep the near knee and hip bent at right angles to support the casualty's body.
- 8) Allow the near arm to fall across the outstretched arm in a natural position.
- 9) Tilt the head back as far as possible to open up the airway and continue with A – Airways of DRS ABCD.



**Important:** Some injuries can damage the part of the spine that is in the neck. If this happens, even small movements can damage a casualty's spinal cord and leave them permanently unable to use their legs and sometimes even their arms. If you are unsure if a casualty has injured their neck, do not attempt to move them without adult help.

# 3. Conditions and Treatments

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Depending on who you ask, there are between 10,000 and 100,000 human medical conditions that have ever been described. Most of them are very rare so even most doctors wouldn't have even heard of them. While there are only a few hundred medical conditions you could have to worry about at an emergency that's still quite a lot to remember. Fortunately we're not trying to turn you into a paramedic (that would take a few years and books much thicker than this one!), but there are some simple conditions that you need to know well as a first aider.

## **Bleeding**

For almost 2,000 years until the late 1700s, the most common medical procedure performed by doctors was to cut patients and allow them to bleed! It was used to treat everything from seizures in King Charles II to a throat infection in George Washington (both of whom died soon afterwards). Nowadays we know bleeding is not useful (except in rare conditions like *polycythaemia rubra vera*, try saying that one quickly!) and can cause death, so we treat all bleeding urgently.

## **Minor bleeding**

A minor cut is one that clots and stops bleeding by itself within a few minutes, or is small enough that a Band-Aid can be put on it and that stops the bleeding. To treat minor bleeding:

- 1) Clean the cut by putting it under running water or dabbing it with a clean damp tissue or cloth.
- 2) Dab the cut dry with a clean tissue or cloth.
- 3) Put a Band-Aid or similar small sticky dressing over the cut.

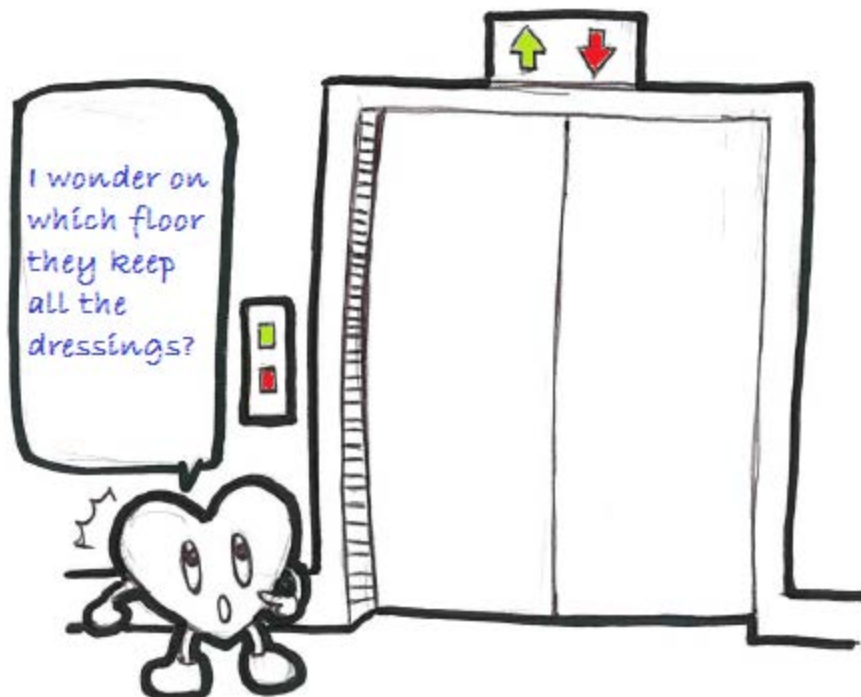
You do not need to do any further first aid. If the casualty was cut by a rusty or dirty object or if they were bitten by an animal, ask them when they last had a tetanus vaccination (an injection to stop a germ called tetanus infecting people, tetanus germs live on rusty metals, in soil, in dust and in animal manure). Most people in Australia have a tetanus vaccination when they are born, at 4 years old and in Year 10 at school. If they haven't had a tetanus vaccination in the last 10 years, they should see their doctor as soon as possible.

## **Major bleeding**

A major bleed is one that has blood flowing or spurting out of it, or continues to ooze blood after a few minutes. Bleeding from an artery (a blood vessel that carries blood away from the heart at high pressure) spurts out of the wound and can kill a person in a few minutes. Bleeding from a vein (a vessel that carries blood towards the heart at low pressure) flows out of the wound constantly but can still kill a person quickly if a large vein is injured. Bleeding from capillaries (small vessels that carry blood through skin and through organs) is usually minor but can be major, especially on the scalp and over joints, where the muscles pull the wound apart and stop it from clotting. For these types of bleeding we use the acronym **CRED**, which stands for: Compression, Rest, Elevation, Dress. Though remember that the most important thing you can do is get adult help and call the ambulance.

**C – Compression:** The best way to reduce major bleeding is to hold a clean pad directly over the wound. If you don't have a pad, use a clean towel or clean clothes. You should hold the wound tightly enough that it would normally be uncomfortable for the casualty, especially for bleeding from an artery. If you have gloves quickly available you should put these on but for major bleeding don't waste time getting gloves before compressing the wound.

**R – Rest:** The more the casualty rests, the slower their heart will beat and the more the bleeding will reduce. Unless the wound is on their back or another hard to reach place, have the casualty lie down and stay still.



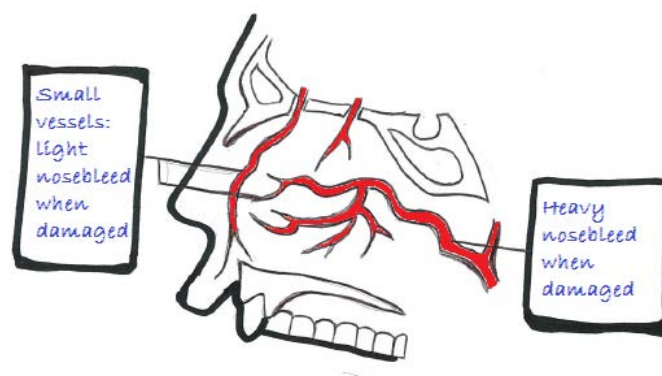
**E – Elevation:** Raise the bleeding wound above the level of the heart. This reduces the rate of bleeding. The casualty may not be able to hold the wound in that position themselves so hold it yourself or leave it in a supported position. For example, for arm wounds, you can rest the casualty's arm on their chest while they're lying down. For leg wounds, you can put the casualty's legs up on a chair or other object so that they're higher than their chest.

**D – Dress:** Once the casualty is resting with their wound elevated and you've held it with firm pressure for a few minutes, the bleeding may have slowed enough that you can put a dressing over the wound. Unless the first pad is completely soaked in blood, do not remove it as some blood clot may have formed on it and removing the pad may make the bleeding worse. Apply another pad over the first, bandage it in place with a crepe bandage and stick it together with tape. If there is a large foreign body in the wound such as a knife or other sharp object, do not remove it, put the pads around it and wrap the crepe bandage around it.

## Nosebleeds

A nosebleed can be caused by being hit on the nose, or by either very high or low air pressure, such as scuba diving or flying at high altitude. While there are lots of different ways of treating nosebleeds, the main things a person with a bleeding nose should do are:

- Sit upright and rest until the bleeding stops.
- Pinch the soft flaps of the nostrils together for at least 10 minutes. You should be pressing right up against the bone at the top and back of the nose (this puts pressure on the bleeding vessels).
- Hold the head forward so blood comes out the nostrils and doesn't go back into the throat (blood is very irritating to the stomach and can cause vomiting)
- When the bleeding has stopped, don't blow or pick the nose as this may cause bleeding to start again.





## Abrasions

When someone falls off their bike and slides across concrete or gravel, or when someone falls off play equipment and scrapes along the tarmac, the type of injury caused is called an abrasion. The skin is usually broken with some minor bleeding and dirt stuck in the wound. To treat an abrasion:

- 1) Soak the wound in warm soapy water. If you can't do this because of where the wound is, use clean pads or pieces of cloth that have been soaked in warm soapy water to gently clean the wound from the centre to the edge. Do this all the way around the wound.
- 2) While the wound is soaking, remove any large stones or pieces of bark that are stuck in the wound and can be easily removed.
- 3) Dry the wound well by blotting with clean pads or tissues.
- 4) Apply a layer of antiseptic solution such as povidone-iodine, and allow it to dry in the air. If you don't have any antiseptic, use sterile saline (which comes in most first aid kits) instead.
- 5) Put a sterile dressing over the abrasion, wrap a crepe bandage over it to hold it in place and stick it down with tape.

If there's still a lot of dirt in the wound, make sure the casualty gets medical attention to have it cleaned properly.



## Heat exhaustion

On a hot summer's day, even a small amount of work can leave you feeling exhausted. Heat exhaustion is what happens when someone loses too much water through sweating and becomes dehydrated. It used to be called hyperthermia, but we try not to use that word because it's too similar to hypothermia, the word for very low body temperature. A person who is heat exhausted could have many of these symptoms:

- Muscle cramps
- Feeling sick
- Vomiting
- Feeling dizzy
- Pale, cool skin
- Very sweaty
- Fast heartbeat
- Fast breathing
- Confusion
- Tiredness
- Headache
- Blurred vision
- Irritated
- Feeling too hot
- Not their normal self

If it's a hot day and someone has some or all of these symptoms they probably have heat exhaustion. To stop them heating up further, do the following things:

- Lie the casualty down in a cool area such as under a shady tree. Tell them to rest and not move at all. Raise their legs slightly by bending their knees up.
- If they have any tight clothing on, loosen it, especially at the neck and waist.
- If the casualty is awake and alert, given them many small sips of water to drink. If they are feeling too sick to drink or are vomiting, give them ice chips to suck.
- If they are still too warm after a minute or two, put wet towels over them to cool them faster. If you have a fan, turn it on and place it so the air is blowing across the casualty.
- If you have ice packs, put them in the casualty's armpits and groin to cool them even faster. Make sure you don't put ice packs directly onto skin.
- If they are not conscious, follow DRS ABCD as usual.



Heat exhaustion that is very severe can become something called heat stroke, which is where the body is so hot that it gives up trying to cool itself down. You can recognise this by the casualty's skin becoming red and dry, they become very confused or they become unconscious and you can't easily wake them up again. This is an emergency and the casualty can have permanent organ damage in less than half an hour and die in a few hours even with first aid treatment. For this reason, if a casualty has severe heat exhaustion you must call the ambulance straight away, before it becomes heat stroke.

## Hypothermia

The word hypothermia means low temperature and happens when someone is exposed to very cold temperatures. It is more likely if the person is very old or young, if their clothing is thin or wet, or if they're already sick before being exposed to the cold. A person with hypothermia could have many of these symptoms:

- Feeling cold
- Shivering
- Confusion
- Difficulty talking
- Poor coordination
- Feeling tired/sleepy
- Pale, cold skin
- Slow breathing
- Slow heart rate
- Blue lips, nose, ears and fingers
- Collapse



If a person has been exposed to cold and they have some of these symptoms they probably have hypothermia. To stop them from cooling down further, do the following things:

- Move the casualty out of the cold and wind into a sheltered place.
- If their clothes are wet and you have dry clothes, help them change into dry clothes.
- Lie the casualty down and cover them in layers. Use all the layers you have available. These may include blankets, thermal blankets from a first aid kit or a sleeping bag.
- Make sure they're not lying on the ground but on something that will keep them warm and dry, like a blanket or foam mattress.
- If they are not conscious, follow DRS ABCD as usual.

**Important:** Don't give them anything to eat or drink unless they're fully awake and alert, and have been warmed up for a few minutes. Otherwise, blood might be moved away from the cold body organs that need it most. Don't use direct heat such as a camp fire, hot packs, massage or a blow heater as this will take heat away from the cold body organs to the skin surface.

## Fainting

Fainting is when someone loses consciousness because of not enough blood reaching their brain, and collapses to the ground. People may faint for different reasons, such as standing in one position for too long, being dehydrated, being in pain or emotionally upset, or due to a more serious medical condition like a funny heart rhythm. Some people even faint at the sight of blood (This may be a protective trick of the body, where in ancient times if someone was cut in a battle and fainted, they



would be thought to be dead and wouldn't be attacked any more, saving their life!).

If the casualty is unconscious, follow DRS ABCD as usual and get medical help. If they are conscious again soon after collapsing on the ground, keep them lying down and help them into a comfortable position. Loosen any tight clothing and lift their legs up so more blood goes back to their heart and brain.

Some people may seem to be well soon after a faint but if they hit their head before or when they fell they could be slowly bleeding inside their skull, which is very serious. If the casualty fainted because they were hit hard in the head e.g. by a swung cricket bat or a falling tree branch, if they fell from more than standing height, e.g. down a flight of stairs, or if they're old or taking lots of medications, you should always get medical attention for them.

## **Burns and scalds**

In Rudyard Kipling's *The Jungle Book*, the main character Mowgli defeats the tiger Shere Khan by scaring him away by waving a burning branch in front of him. Shere Khan was so scared because he knew how easy it was to be burnt by fire and how painful burns can be. While you shouldn't be in the situation of having a burning branch waved in front of you, burns and scalds can still happen in lots of ways.

Burns are injuries from dry heat sources such as the sun, an open flame, stove, oven, electric wire or even a piece of metal that's been left out in the sun on a very hot day. Scalds are injuries from wet heat sources such as boiling water from a kettle or hot drink, or steam from a clothes iron or lifting the lid of a simmering saucepan.

To treat these injuries, follow these steps:

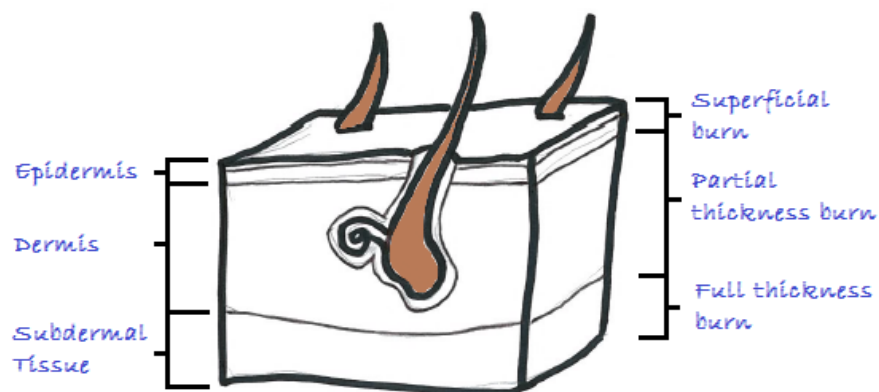
- 1) Remove any clothing from over the burn unless it is stuck to it. For stuck clothing, cut the rest of the clothing around the burn and remove it.
- 2) Cool the injury by holding it under cold (not freezing) running water. If you don't have running water available, use two containers to pour the water over the injury and catch it underneath. Do this for at least 20 minutes.
- 3) If possible keep the burnt area raised to reduce swelling.
- 4) Put a sterile non-stick dressing over the injury. If you have a special burns dressing you can use it, but any dressing will do. If you don't have a dressing, a layer of cling film or plastic food wrap can be used. The importance of covering the burn is to reduce pain, stop germs getting into the wound and

stop the casualty's body dehydrating through the burn (only a problem if it's a large burn).

- 5) Lightly wrap a crepe bandage over the dressing to keep it in place.
- 6) If the burn is larger than a 20 cent coin, the casualty will need to see a doctor as soon as possible. If the burn is larger than the casualty's palm, they will need to go to hospital to have the burn treated immediately.

**Important:** There are some things that people sometimes do when treating burns that aren't helpful and may actually mean the burn takes longer to heal. Don't peel off clothing that is stuck to the burn, don't remove peeled skin and don't break blisters as this worsens the injury. Don't use ice or icy cold water on the burn as this can cause further cold burning. Don't put anything on the burn including creams, lotions and ointments, except for clean dressings or burns dressings (medical professionals might put particular creams on burns but this is because they know the right time to use the right creams).

Burns and scalds can be shallow or deep, with different medical treatment depending on the depth. However, the first aid treatment is the same and the following table is just for your interest:



<u>Depth</u>	<u>Deepest layer</u>	<u>Appearance</u>	<u>Sensation</u>
Superficial – 1 <sup>st</sup> degree	Epidermis	Red, no blisters	Painful
Superficial partial thickness – 2 <sup>nd</sup> degree	Superficial (papillary) dermis	Red, clear blisters, blanches with pressure	Very painful
Deep partial thickness – 2 <sup>nd</sup> degree	Deep (reticular) dermis	Yellow or white, may have blisters, less blanching	Pressure, discomfort, little pain
Full thickness – 3 <sup>rd</sup> degree	Subcutaneous tissue	White/brown, no blisters, no blanching	Painless

## Bites and stings

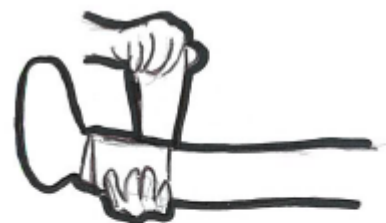
Australia has the 11 most venomous snakes in the world (if you measure how dangerous a snake is by the amount of venom required to kill one mouse) and many of the most dangerous spiders, insects, reptiles and fish. So it's very important that everyone in Australia knows what to do when bitten or stung by a venomous creature!

If someone has been bitten by an animal or insect and you're not sure what it was or what to do, the safest thing to do is to lay the person down, ask them to stay still, and call 000 for help. If you do know what the creature was, follow the steps below:

### Snake or funnel web spider bite

Most Australian snakes and the funnel web spider have venom that can cause serious illness or kill someone. It can be difficult to tell if a snake is a venomous type or not, so it is safest to treat all snake bites as venomous unless you are an expert at telling the difference between snake types. The funnel web spider is a large black spider that lives mainly around Sydney and northern New South Wales, so any spider bites in those areas from dark coloured spiders should be treated as venomous. For these bites you should do the following:

- Lie the casualty down and tell them to rest completely. The more they move, the faster the venom will travel around their body.
- Follow DRS ABCD as usual, taking care to protect yourself from the dangerous animal, and making sure you send for help.
- If the bite is on a limb (they almost always are) apply a Pressure Immobilisation Bandage (PIB):



- Wrap a crepe bandage around the bite site firmly so that it is a little bit uncomfortable for the casualty but doesn't block off the blood circulation.
- Take another crepe bandage and starting from the end of the limb (fingers for arm bites, toes for leg bites) wrap the bandage around the limb. Each time you wrap the bandage around the limb, cover half of the wrap you just made.
- When that bandage runs out, take another bandage and wrap as far up the limb as you can go. Make sure you at least wrap past the knee or elbow, but if possible, wrap up to the hip or shoulder.
- Check that the bandages are not too tight. If the casualty's fingers or toes at the end of the bandage start tingling, become numb, or have increasing pain, loosen the bandages a little bit.
- Keep the casualty flat, don't elevate or lower the bitten limb.
- While you're waiting for help to arrive or while carrying the casualty to safety, keep checking the casualty. If they start becoming sick, you may have to start the ABCD part of DRS ABCD.

### **Other spiders, ant, bee and centipede bites and stings**

While not as venomous as snake and funnel web spider bites, bites and stings from other spiders and insects can be serious in certain people so it's important to still treat them properly. To treat a spider, ant, bee or centipede bite or sting, follow these steps:

- 1) Look carefully at the wound and remove any barb or stinger in the wound. Spiders don't usually leave a stinger. Ants and centipedes can be brushed off with a finger. Bee stings should be brushed off sideways, if you pull or squeeze the barb more venom will be injected.
- 2) Raise the area of the bite or sting as high as possible to reduce swelling.
- 3) Wrap an ice pack or ice cubes with a wet cloth and put it on the bite or sting site for up to 10 minutes. Reapply the ice pack for up to 10 minutes at a time until the casualty no longer has pain.
- 4) If the casualty is a baby or young child, get medical advice quickly as they can quickly become very sick. If the casualty starts getting severe pain or if they become sick with nausea, vomiting, a headache or fever, get medical help.
- 5) Some people are very allergic to certain insect venoms, particularly bee venom. If the casualty starts to show facial swelling or to have difficulty



breathing, they may be having a severe allergic reaction. In this case, get immediate medical help.

### **Tick bite**

Ticks are small bugs related to spiders that attach to humans and stay attached sucking blood until they fall off, die or have sucked all the blood that they can find. Most ticks have a very hard shield that means even if you stood on one you wouldn't be able to kill it! While they're attached they inject a toxin into the skin that makes the person feel weak and eventually paralyses them completely. Ticks are found along the east coast of Australia, from eastern Victoria to northern Queensland. To treat tick bites:

- If medical assistance is nearby, get help removing the tick.
- If no medical help is nearby, try to remove the tick. Using fine tweezers grab either side of the tick and lever it out of the skin. If the tick's head or mouthparts break off and are stuck in the bite, try and remove them but if you can't, get medical help.
- As well as paralysing people, ticks can also carry dangerous diseases. Make sure the casualty sees a doctor as soon as possible in case they need antibiotics.

## 4. Sprains, Strains and Fractures

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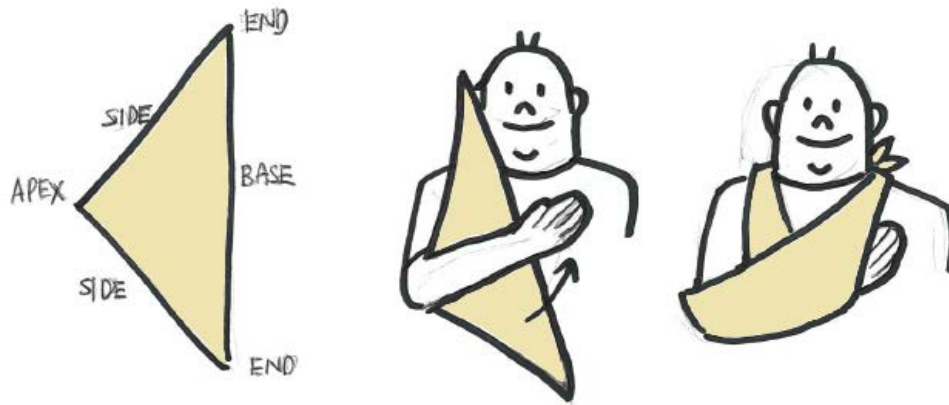
Sprains and fractures are conditions affecting the 206 bones and 640 – 850 muscles (depending on what you count as a muscle) in the adult human body. A sprain is where the part of a muscle that attaches to a joint is overstretched or torn. A strain is where the muscle itself is overstretched or torn. A fracture is where a bone breaks. While the treatment of sprains and fractures is best done by physiotherapists and doctors, it's important to keep the casualty as still and comfortable as possible until they get medical help. For this you need to know how to put on slings and bandages.

### **Arm**

If a casualty sprains their shoulder, elbow or wrist, or breaks their arm, it will be difficult for them to hold their arm in a position that's comfortable. To make things easier for them, putting on an arm sling will take the weight of their arm off their shoulder and arm muscles, and put it on their neck and upper back instead. There are more complicated ways of making slings for particular injuries that more experienced first aiders and doctors can do, but if you put an arm injury in an arm sling you will almost always be helping the patient. To put on an arm sling:

- 1) Ask the casualty to hold their injured arm across their chest with their good arm.
- 2) Put a triangular bandage over their chest with the long edge running down their body (base) and with the wide point (apex) of the bandage pointing to the elbow of the injured arm.
- 3) Pull the upper narrow point (the one that's resting on their good shoulder) around their neck until it rests on the shoulder on the injured side.
- 4) Gently fold the bandage in half around their injured arm, tucking the lower narrow point up underneath their injured arm until it rests on the shoulder on the injured side.
- 5) Tie the two narrow points together with a reef knot. Make sure the reef knot is resting just above the collarbone and not on the neck.
- 6) Pull the sling towards the injured elbow until the fingertips are visible.
- 7) Fold the wide point of the bandage back onto the bandage and stick it there with tape or a safety pin.

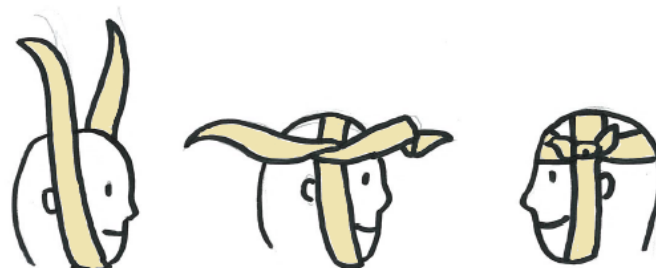
- 8) Keep checking the fingers of the injured arm. If they become dark or blue in colour, or much colder than the good arm, loosen the sling and any bandages that are on the arm. Make sure you can always see the casualty's fingers, so you notice any changes in skin colour.



## Head

It can be difficult to stop bleeding from a cut to the scalp. This is because the muscles in the scalp pull any cut apart and stop it from healing. Because of the hair on the top of most people's head, it's hard to stick down a dressing over the wound with enough force to stop the bleeding. There are two ways to hold a scalp dressing down with a bandage. You can roll a crepe bandage over the dressing and around the head, which is easier to do. But if you don't have one available you can also use a triangular bandage:

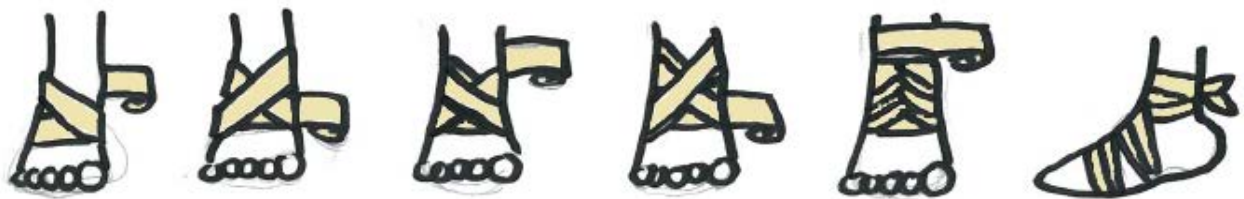
- 1) Lay the triangular bandage out flat.
- 2) Fold the bandage in half by taking the wide angle and bringing it down to the long edge.
- 3) Fold the bandage in half a 2<sup>nd</sup> time by taking the edge where the wide angle used to be and bringing it down to the long edge. You now have what's called a broad bandage.
- 4) Wrap the broad bandage around the head over the top of the dressing you want to hold in place, and tie the two narrow angles of the bandage together with a reef knot.



## Leg

Following a sprain, strain or fracture, it's important to keep the injury as still as possible until medical help is received. The ankle is the most difficult joint to keep still, because the foot is at right angles to the rest of the leg. To keep it still, you need to make a figure 8 bandage:

- 1) Take a crepe bandage and wrap it around the arch of the injured foot a few times.
- 2) Wind the bandage from the arch of the foot up one side of the ankle, around the back and then down onto the other side of the arch. You now have your first figure 8.
- 3) Wrap the bandage under the arch of the foot and make another figure 8 like in step 2, except this time make it slightly higher than the first one.
- 4) Keep making figure 8 patterns, each one higher than the one before, until you run out of bandage.
- 5) Stick the end of the bandage down with tape or use a safety pin to clip it.



## 5. Prevention is Better Than Cure

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You now know how to deal with emergencies and the types of injuries that casualties might have from accidents. Though what about when people become sick and it's not an emergency that needs first aid, like when people get a cold or a runny tummy. If they're quite sick then you would take them to a doctor or hospital. But there are some things that we can all do to not get sick in the first place.

### Disease spread

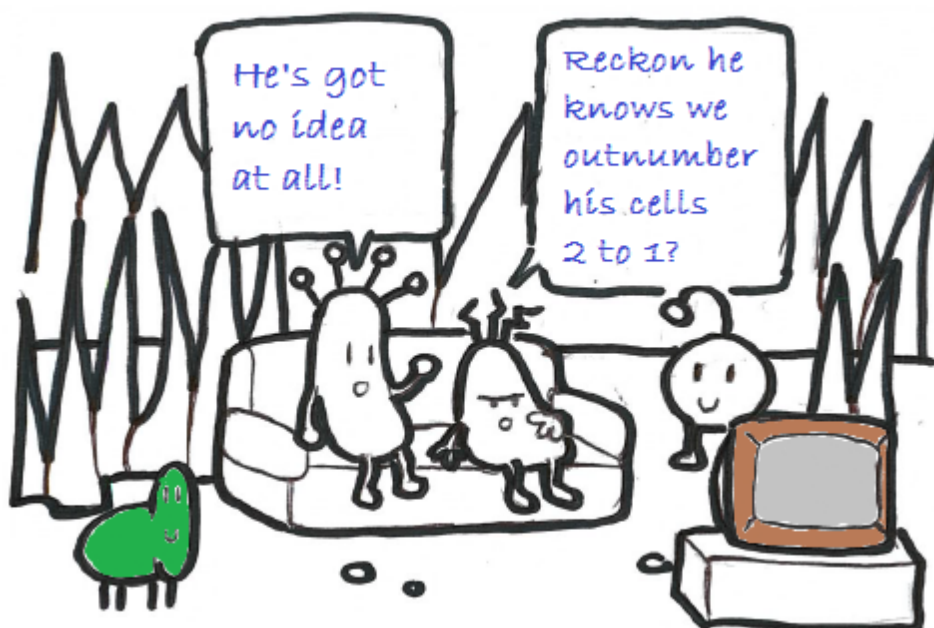
An infectious disease is one that can spread between people or animals, and that you can pick up if a certain germ gets into the wrong place in your body. Germs are microscopic cells that are much smaller than the cells of your own body (cells are the building blocks of your body; you have skin cells, heart cells, liver cells, blood cells and cells for pretty much everything your body has to do). There are different categories of germs depending on how complicated the germ cells are. The three broadest categories of germs are bacteria, viruses and fungi. In these categories there are millions of germs. Each one has a different name and can cause different types of diseases. For example, the germ that causes many cases of pneumonia is a bacterium called *Streptococcus pneumoniae*.

When a germ spreads to a human it is called transmission. Germ transmission can happen in a few different ways:

- **Airborne** – When someone coughs or sneezes and has a germ in their lungs or airways, the germ gets spread through the air and can be carried great distances by air currents. The measles and chickenpox viruses are spread in this way.
- **Droplet** – Some germs are too big to be carried by the air, but they can still be coughed out as drops of mucous or spit that can travel a few metres through the air. If droplets containing germs are breathed in they might cause the person to become sick. This is why it's very important to cover your sneeze or cough with your sleeve or handkerchief. *Rhinovirus*, which is the main cause of the common cold is spread in this way.
- **Indirect contact** – If droplets with germs are not breathed in they might land on furniture, clothing, food or whatever else is around. If someone else

touches the surface that the droplets have landed on and then puts their hand to their mouth, they can pick up the germs that were in the droplet and become sick. If germs land on food and the food isn't stored properly or isn't warmed up properly before serving, the germs can multiply enough to cause illness in whoever eats the food. This is why it's very important to store food properly and to wash your hands after they've become dirty, especially before touching food. Viruses causing gastroenteritis are mainly spread in this way. Head lice can also be spread by wearing a hat that was worn by someone with lice and had lice on it. To make sure that head lice aren't spread you should try not to share hats, headscarves or other head coverings.

- **Direct contact** – If someone is sick with a cold and they sneezed into your face or eyes you would directly pick up the germ that's causing their cold. Direct contact could also be being injected with blood that contains a germ that normally lives in blood. The hepatitis C virus is mainly spread in this way.
- **Vector** – This is where a germ is spread by an animal or insect. An example is *Plasmodium falciparum*, the protozoan (another category of germ) that causes malaria. It is spread by being bitten by an infected female *Anopheles* mosquito. So when travellers come back to Australia with malaria there's no risk of the infection spreading because there are no *Anopheles* mosquitos in Australia. (However the *Anopheles* mosquito has recently been found [and quickly killed!] in northern Queensland. This seems to be due to climate change allowing the mosquito to migrate from Indonesia and survive in tropical Australia when it couldn't before.



# Personal hygiene

## Cleanliness

Just like humans, germs need food and drink. Except germs will eat and drink things that we would never think of putting in our mouths! When are you most comfortable? Chances are, it's when you're in a warm room at around 21 degrees with food and drink in easy reach (and probably while watching TV or surfing the internet!). Like us, germs particularly like warm, moist places to live. Some parts of our body that are their favourites are our hands, nails, feet and teeth.

**Hands** – Your hands come into contact with far more dirt than any other part of your body because you use them to touch so many things. You also have lots of sweat glands on your palms, which means your hands are usually slightly wetter than the skin of your arms or legs. This means that germs can grow well on your hands and because you use them to touch so many things, germs can be easily spread by hands. To stop this from happening you should wash your hands whenever they're dirty but you should also wash your hands at these times:

- After going to the toilet
- Before eating, even if using cutlery
- Before cooking
- After touching animals

How often do you wash your hands before eating lunch at school? You should scrub your hands for at least 30 seconds every time you wash them (but the water doesn't need to be running while you're scrubbing!). If that sounds like too long, surgeons scrub their hands for at least 5 minutes before an operation, so on a busy day they might spend half an hour in total just washing their hands!

**Nails** – A lot of dirt can build up under your nails, which provides food for germs. To stop the germs from multiplying it's important to keep your nails well-trimmed and to remove dirt from underneath them. If you don't, after you wash your hands many germs can still be there in the hard to reach places under your nails and you might still be spreading germs.

**Feet** – Because your feet are in socks or shoes for most of the day, any sweat gets trapped, which again makes a nice warm, moist place for germs to live. The *Trichophyton* group of fungi are germs that particularly like warm, moist feet and cause a condition called tinea pedis or athlete's foot. It can be very hard to get rid of fungus from the feet, so it's better to avoid getting it altogether by washing your feet

every day, changing your socks regularly, keeping your toenails clipped and avoiding shoes if you can, such as by wearing thongs or going barefoot at home.

**Teeth** – Your mouth is another warm, wet place that germs love. Even better for germs, pieces of food get stuck between teeth and if not removed they are the perfect place for germs to multiply. Germs can then multiply so much that they invade teeth and rot them, and unlike skin, teeth can't grow back. To stop this from happening, it's important to brush your teeth at least once a day, but it's better if you brush twice or three times a day.

## **Sleep**

It might seem a bit strange that for about one third of the day humans do, well, nothing at all! Sleep is very important for your body to stay healthy. There are lots of things that your body can only do properly while you're asleep, like repair particular parts of your body. Also, our muscles can only do so much work and our brain can only do so much thinking before the chemicals that the muscle and nerve cells use to function run out. While you're asleep and not doing much work or thinking, the cells can re-make those chemicals, ready for another day's work.

Different people need different amounts of sleep. Most babies need 14-16 hours of sleep a day. Children aged 1-3 usually need 12-14 hours a day, while children aged 3-12 usually need 10-12 hours a day. You can still function with less sleep but you won't be able to learn or play as well as when you have had enough sleep.

## **Diet**

Humans get all the energy we need for our bodies to work and grow from food. The things in food that our body uses for energy and to build cells are called nutrients.

**Macronutrients** – Some we need in large quantities, which are called macronutrients ('macro' means big). There are three groups of macronutrients, which are called carbohydrates, fats and proteins. In very simple terms our bodies use carbohydrates for short and medium term energy, fats for long term energy storage and building cells, and proteins for building cells and making the message systems that allow cells to talk to each other and keep your body working properly.

There are many different types of carbohydrates, fats and proteins, and it can be confusing to know which of the different types are healthier than others since research on the different types is always changing. A simple way to make sense of it



all is by the equation energy in = energy out. If the amount of energy you take in through eating is roughly the same as the amount you use for all your activities, your body will stay healthy. If you take far too little energy in for the amount you want to use, your body will react by using the proteins and fats it normally uses to grow, for energy instead. So you will not grow as much in height and your organs including your brain will not function as well. If you take in much more energy than you need, your body will turn the extra nutrients into fat and store it in your muscles, in your thighs and around your tummy. When you have too much fat in your body, the fat stops your body from working as well as it should and can cause particular diseases, such as high blood pressure and type 2 diabetes.



**Micronutrients** – Some of the things in food we need in smaller quantities, these are called micronutrients ('micro' means small). There are many of these and they fall into the categories of vitamins, minerals and organic acids. Some are found mainly in vegetables, such as the B vitamins. Some are mainly in animal meat, such as vitamin B12 and iron. Some you only get the parts for and your body has to put them together to make the finished micronutrient, such as vitamin D (you eat the materials to make vitamin D in fatty foods like oily fish and some dairy products, then your body sends the materials into your skin where UV light from the sun turns them into finished vitamin D, complicated isn't it!).

**What to eat** – To make sure you get the right amount of energy and all the micronutrients you need, it's best to eat foods that are as unprocessed as possible. This is because processing foods causes the amount of energy in them to increase,

which makes it very easy to eat a lot more energy than you need. Also, processing often removes some of the micronutrients, which means you won't get enough of the things you do need.

For example, multigrain bread is in general better for you than white bread (even though the seeds can be hard to eat sometimes!). This is because the seeds still have all the micronutrients that are in bread and the energy is slowly released into your body. White bread has had all the seeds removed and the grain crushed up into fine flour. While it makes it easier to spread jam on it, the fine flour is broken down into macronutrients very quickly in your gut. Your body gets a shock and tries to turn some of the excess nutrients into fat to store it for another time. The multigrain bread was broken down more slowly so the nutrients produced never get very high at any one point. This means the body turns a lot less of it into fat compared to white bread and your body gets continuous energy for a longer time.

The full story is much more complicated but basically the more steps that a food has taken between the farm and your mouth, the more likely it is to be unhealthy. To make it easier to work out how much of the different types of food you should eat, the food pyramid is useful and tells you what you should eat every day, and what you should only eat sometimes.

## 6. Test Yourself

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If you want to get better at a sport, tying knots or playing a musical instrument, you have to practise that skill until you're a master. It's a little difficult to practise first aid because emergencies don't happen every day (and it would be highly illegal to make your own real emergencies just to practise first aid!). The next best thing is to have someone who knows what they're doing run a fake emergency where someone pretends to be hurt but the people around pretend to help them as if it were a real emergency.

If you've just read this book and can't wait to see how much you remember, try these questions. If you get any wrong, go back and read that part of the book to make sure your knowledge is the best it can be.



### Chapter 2

**Adult help** – Choose whether these statements are true or false:

- 1) After you get an adult's help in an emergency there is nothing more for you to do. (T/F)
- 2) You should call 000 if someone gets a papercut. (T/F)
- 3) If you don't know your location, you should find it out before calling 000. (T/F)
- 4) If you're in a foreign country and you don't know the emergency number, you can try calling 112. (T/F)

**Approaching a casualty** – Choose the best answer:

- 5) The most important person in an emergency is: A) bystanders. B) you. C) the casualty. D) the ambulance paramedic.
- 6) Which of these is NOT a good way to check for a response: A) rub the casualty's forehead. B) squeeze the casualty's fingernails. C) Tell the casualty to stand up. D) Call out loudly to the casualty.
- 7) Which of these is something you should do while clearing a casualty's airway: A) remove well-fitting dentures. B) put them in the recovery position. C) use a stick to clear vomit from their mouth. D) lie them on their back to get a good look into their mouth.
- 8) To check a person's breathing you can: A) hold a balloon over their mouth. B) push on their chest and see if their breathing pushes your hand back. C) put soapy water in their mouth and see if it bubbles. D) place your cheek over their mouth to feel for breathing.

**The recovery position** – Fill in the blanks, the words in brackets are a hint:

- 9) You always roll the casualty towards the side that is \_ \_ \_ \_ \_ (how much) injured.
- 10) Roll the casualty \_ \_ \_ \_ \_ (direction) from you.
- 11) Place their far arm and near knee at a \_ \_ \_ \_ \_ (what sort of angle) angle to their body.
- 12) After rolling the casualty, tilt the head \_ \_ \_ \_ \_ \_ \_ \_ \_ (direction).

## Chapter 3

**Bleeding** – Choose whether these statements are true or false:

- 1) For minor bleeding, once you've cleaned the wound, stopped the bleeding and dressed it, you never need to do anything more. (T/F)
- 2) CRED stands for compression, rest, elevation, dress. (T/F)
- 3) You should always get medical attention for a casualty with major bleeding. (T/F)
- 4) A casualty with a nosebleed should lean backwards so no blood drips on the floor. (T/F)

**Abrasions** – Choose the best answer:

- 5) The best way to clean an abrasion is to: A) use clean pads to clean from the centre of the wound to the edge. B) pour warm water over it while scrubbing it clean. C) remove just the large pieces of dirt, then dress it. D) soak the wound in warm soapy water.
- 6) To make sure the wound doesn't get infected: A) spray it with bug-spray. B) put an antiseptic or saline solution over it. C) tell the person to get a germ-killing medicine from a doctor. D) put a dressing on it before washing it, to stop germs getting in.

**Heat exhaustion** – Fill in the blanks, the words in brackets are a hint:

- 7) A person with heat exhaustion often has pale, \_ \_ \_ \_ (temperature) skin.
- 8) You should tell a heat exhausted person to \_ \_ \_ (position) down and rest.
- 9) If someone is heat exhausted and vomiting, give them \_ \_ \_ (object) to suck.
- 10) When heat exhaustion becomes heat stroke, the casualty's skin becomes \_ \_ \_ (colour) and dry.

**Hypothermia** – Choose whether these statements are true or false:

- 11) A person with hypothermia usually has a slow heart rate. (T/F)
- 12) You should tell a hypothermic person to run around outside to warm up. (T/F)
- 13) You can lie someone with hypothermia down directly on the ground. (T/F)
- 14) If someone's cold and asking for a warm drink but is quite groggy, you shouldn't give one to them. (T/F)

**Fainting** – Choose the best answer:

- 15) Which of these is NOT a reason that someone might faint: A) too much blood reaching their brain. B) being dehydrated. C) having a funny heart rhythm. D) standing up for too long without moving.
- 16) When someone faints you should: A) get them to stand up as soon as possible. B) tighten their clothing so it keeps blood in their brain. C) if they're unconscious, put them in the recovery position. D) lie them flat on their back.
- 17) After a faint, a person needs to get medical attention if the reason for them fainting was: A) they were standing up in school assembly for too long. B) they were having a blood test and saw the blood. C) they saw a mouse and are very scared of mice. D) they fell off a 5m high ladder.

**Burns and scalds** – Fill in the blanks, the words in brackets are a hint:

- 18) If clothing is stuck to the burn, \_\_\_ (action) the clothing around the burn.
- 19) To cool a burn or scald hold it under \_\_\_ (temperature) water.
- 20) You should cool a burn with water for at least \_\_\_\_\_ (number) minutes.
- 21) If a burn is bigger than a \_\_\_\_\_ (number) cent coin, the casualty should see a doctor as soon as possible.

**Bites and stings** – Choose whether these statements are true or false:

- 22) Someone who has been bitten by a snake or a spider that is possibly a funnel web spider should lie as still as possible until help arrives. (T/F)
- 23) When applying a Pressure Immobilisation Bandage start from above the bite site and wrap towards the end of the limb. (T/F)
- 24) If someone has a bee stinger stuck in their arm you should pull it off immediately. (T/F)
- 25) You should apply an ice pack to ant and centipede bites. (T/F)
- 26) You should never try and remove a tick from someone who has been bitten by yourself. (T/F)

## Chapter 4

**Arm** – Choose whether these statements are true or false:

- 1) An arm sling is made with a crepe bandage. (T/F)
- 2) When making an arm sling, point the wide point of the bandage of the bandage towards the elbow of the injured arm. (T/F)
- 3) The sling should cover the whole arm including the hand and you shouldn't be able to see the casualty's fingers. (T/F)
- 4) The sling should be tied with a reef knot above the collarbone on one side and not at the back of the neck. (T/F)

**Head** – Choose the best answer:

- 5) It's difficult to stop bleeding from a scalp cut because: A) the scalp has lots of blood vessels so lots of blood comes out when there's a cut. B) the scalp muscles pull any cut apart. C) hair stops scalp cuts from healing. D) you can easily make more cuts when trying to bandage the scalp.
- 6) The best way to hold a dressing on the scalp down is to: A) stick it down with strong tape. B) use a triangular bandage. C) use the hair to tie the dressing down. D) use a crepe bandage.

- 7) Put these steps of making a broad bandage in the correct order: A) fold the bandage in half by taking the wide angle and bringing it down to the long edge. B) lay the triangular bandage out flat. C) fold the bandage in half by taking the edge where the wide angle used to be and bringing it down to the long edge.

**Leg** – Fill in the blanks, the words in brackets are a hint:

- 8) The most difficult joint to keep still is the \_\_\_\_\_ (joint).  
9) A crepe bandage can be used to make a \_\_\_\_\_ (bandage type) bandage.  
10) When you wrap a crepe bandage around the foot each wrap should be \_\_\_\_\_ (position) than the one before.

## Chapter 5

**Disease spread** – Choose whether these statements are true or false:

- 1) You can stop transmission of chickenpox and rhinovirus by staying away from other people if you have them. (T/F)
- 2) Covering your sneeze or cough is not a good way to prevent droplet transmission of germs. (T/F)
- 3) You can stop the spread of head lice by not sharing hats with other people. (T/F)
- 4) Climate change may make some diseases more common in Australia. (T/F)

**Personal hygiene** – Choose the best answer:

- 5) You should wash your hands: A) before cooking. B) before eating. C) after going to the toilet. D) all of the above.
- 6) When you wash your hands you should scrub for at least: A) 10 seconds. B) 30 seconds. C) 1 minute. D) 2 minutes.
- 7) To stop your feet from getting an athlete's foot infection you should: A) walk around barefoot at home. B) let your toenails grow long. C) wear the same pair of socks until they get a hole in them. D) keep your socks and shoes wet.
- 8) You need to sleep so that: A) you can dream nice dreams. B) your parents can get some peace and quiet. C) your body can repair itself. D) your toys and the TV can get some rest from not being used.

**Diet** – Fill in the blanks, the words in brackets are a hint:

- 9) Macronutrients are nutrients that we need in \_\_\_\_\_ (amount) quantities.
- 10) Micronutrients include vitamins, \_\_\_\_\_ (type of micronutrient) and organic acids.
- 11) Processed foods are more likely to be \_\_\_\_\_ (amount) in energy compared to unprocessed food.
- 12) The \_\_\_\_\_ (amount) steps a food has between the farm and your mouth, the more unhealthy it is likely to be.

## Answers

### Chapter 2

- |      |      |          |               |
|------|------|----------|---------------|
| 1) F | 4) T | 7) B     | 10) away      |
| 2) F | 5) A | 8) D     | 11) right     |
| 3) T | 6) C | 9) least | 12) backwards |

### Chapter 3

- |         |         |            |       |
|---------|---------|------------|-------|
| 1) F    | 8) lie  | 15) A      | 22) T |
| 2) T    | 9) ice  | 16) C      | 23) F |
| 3) T    | 10) red | 17) D      | 24) F |
| 4) F    | 11) T   | 18) cut    | 25) T |
| 5) D    | 12) F   | 19) cold   | 26) F |
| 6) B    | 13) F   | 20) twenty |       |
| 7) cool | 14) T   | 21) twenty |       |

### Chapter 4

- |      |      |             |            |
|------|------|-------------|------------|
| 1) F | 4) T | 7) B A C    | 10) higher |
| 2) T | 5) B | 8) ankle    |            |
| 3) F | 6) D | 9) figure 8 |            |

### Chapter 5

- |      |      |          |              |
|------|------|----------|--------------|
| 1) T | 4) T | 7) A     | 10) minerals |
| 2) F | 5) D | 8) C     | 11) high     |
| 3) T | 6) B | 9) large | 12) more     |



# 7. Index

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## **Glossary**

**000:** The standard Australian emergency number, which can be dialled from any phone in Australia.

**112:** The standard international emergency number, which can be dialled from most phones in the world.

**Abrasion:** The type of injury caused when someone slides or scrapes across a surface like concrete or gravel.

**Antibiotic:** A group of medicines that kills the category of germs called bacteria. Antibiotics do not work against other types of germs and particularly antibiotics are better at killing certain bacteria than others.

**Antiseptic:** A chemical that kills germs. Povidone-iodine is one type of antiseptic.

**Artery:** A blood vessel that carries blood away from the heart at high pressure and if cut causes life-threatening bleeding.

**Casualty:** An injured person who needs first aid.

**Capillary:** A small blood vessel that if cut causes minor bleeding, but in particular locations such as the scalp can cause major bleeding.

**Compression:** Applying pressure to certain injuries is called compression, and can help some injuries to heal.

**Conscious:** Someone who is conscious is awake, alert and able to respond to their surroundings properly.

**Crepe bandage:** A long bandage that is 3-4m long and 5-15cm wide. It is usually rolled up into a cylinder when not being used and can be easily wrapped around a wound.

**Dehydration:** A condition where the body has lost too much water and can't function properly as a result.

**Elevation:** Raising an area is called elevation, and raising a bleeding wound above the level of the heart can help it to stop bleeding.

**Emergency:** A situation where someone needs first aid and without it they might have a permanent injury or even die.

**Emergency services:** Fire, police and ambulance officers who are trained in dealing with emergencies.

**First aid:** Everything that you do to help someone who has been injured before more experienced help arrives, such as the ambulance.

**Foreign body:** Anything in a wound that is not normally found at that site. For example, gravel in a wound is a foreign body but blood and skin are not.

**Hygiene:** Everything that you do to keep yourself clean so that you don't let germs grow and protect yourself from infections.

**Hypothermia:** A condition where the body's temperature is too low for it to function properly.

**Nutrient:** The chemicals in food that our body uses for energy.

**Paralyse:** Certain toxins can cause a person's muscles to stop working completely. When this happens, the person can't move their muscles and is said to be paralysed.

**Resuscitation:** The process of bringing someone who is unconscious back to normal consciousness. The most well-known form of resuscitation is cardiopulmonary resuscitation (CPR), which involves moving blood around a casualty's body by pushing on their chest when the casualty's heart has stopped beating.

**Saline:** Salt water that can be used to wash wounds.

**Scald:** A burn-like injury caused by a wet heat source such as hot water or steam.

**Sterile:** When something has been cleaned so well that there are almost no germs on it. Sterile things are kept in airtight packages. As soon as the package is opened the sterile thing is not sterile anymore because there are germs in the air.

**Tetanus:** A germ that lives on rusty metals, in soil, dust and animal manure, that can cause a serious infection if it gets into the body through a cut, but can be prevented with a vaccination that lasts 10 years.

**Transmission:** The process through which a germ spreads to a human from another source. The main types of transmission are airborne, droplet, indirect contact, direct contact and vector.

**Unconscious casualty:** A casualty who does not respond to you when you try to get their attention. A person who is sleep can be woken up but someone who is unconscious cannot be woken up. Always send for help when dealing with an unconscious casualty.

**Vein:** A blood vessel that carries blood towards the heart at low pressure but can still cause major bleeding if cut.

**Venomous:** Something that can hurt you by injecting venom into you via a bite or sting.

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