The Duke of Edinburgh's Award in Bermuda

Gold Overseas Qualifying Journey/Residential Project

Lesson Six |

Participant Outcomes | Wilderness First Aid & Emergency Procedures *(Part One)*

The **Expeditions Section** of The Award is all about **adventure** and **challenge**, but the very word adventure implies **risk**.

Provided a number of sensible precautions are taken, water and expedition areas are treated with the respect they deserve, and one remembers that foul weather can cut anyone down to size, the chances of coming to serious harm during an expedition are very remote.

Survival is all about mental attitude. Teams have been found shivering, cold and hungry, waiting passively for help to arrive while sitting beside rucksacks packed with tents, sleeping bags and food! If a team gets into difficulties, then it is up to the team to get itself out of the situation and not to expect anyone else to extricate them. Journeying in adverse weather conditions, whether very hot or very cold & windy, can be extremely tiring & it is inevitable that a number of participants, especially those who are not fit, may succumb to exhaustion, fatigue, heat and faint. Such conditions would rarely warrant calling out a rescue team, much less the use of a helicopter. **The effective remedy, which can be administered by others members of the team, is rest and plenty to drink - hot or cold as appropriate.** Recovery will take place in its own good time and the journey can be resumed or camp set up for the night. There will always be the occasional accident or illness to a member of the team when outside assistance has to be sought straight away.

There are three essential duties to ensure the safety of any self-reliant expedition: ❶ **always tell someone where you are going,** ❷ **always keep together &** ❸ **always tell the responsible person that you have returned safely.**

❶ **Always Tell Someone Where You Are Going**

Always leave word with a responsible person **where you intend to go** and **the time when you expect to return or reach your destination** - your estimated time of arrival (ETA). This procedure is built into the system by providing the Supervisor and Assessor with a **Route Card** which always includes the names & addresses of all the members of the team.

❷ **Always Keep Together**

The team must always keep together. It **must NOT split up or allow anyone to get left behind**. When some members are slow, this requires enormous self-discipline by the rest of the team. Many serious accidents have occurred because of a failure to follow this dictum. **The only exception to this rule is when there is an emergency and after careful consideration, help has to be sought.**

❸ **Always Tell The Responsible Person That You Have Returned Safely**

Participants have a duty to inform the responsible person **immediately** when they reach their destination or of any changes to original plans or potential delays, so that the person will not be concerned for their well-being or initiate any action to find the team.

These precautions form the basis of all outdoor pursuits where groups are carrying out their activities in some measure of isolation. Experience over the years has shown that the probability of success and the margins of safety can be enhanced if these, as well as certain other principles are observed. These considerations, along with an appropriate level of **physical fitness** and the need to **keep pack-weights to the absolute minimum**, make a sound foundation for planning successful - and safe - expeditions.

These principles will be explored in more detail during our **Camp Craft** section, but basically, they are primarily concerned with the safety of the Participants, such as:

❶ **Choose camp sites with relatively easy access in case of an emergency**
❷ **Limit the amount of ascent to avoid unreasonable physical demands**
❸ **Make any major ascents early in the day where possible**
❹ **Do not plan unnatural routes**
❺ **Have an alternative route for foul weather**
❻ **Select possible escape routes in advance**
❼ **Start early in the day**

EMERGENCY PROCEDURES

In the event of an accident or injury, **first aid** must be rendered immediately. When an accident occurs, it will certainly **create alarm and anxiety among the rest of the team**. Involvement in the first aid tasks will enable the team to regain their composure before assessing the situation and making decisions. The casualty may be able to struggle on with assistance from others, to a place where help or medical assistance can be obtained. The most difficult decision arises when the patient is unable to move. The team may have to split up to enable two participants to fetch help. Before taking this significant step, it may be possible to obtain assistance by mobile phone or members of the public.

To Attract Attention Use

THE INTERNATIONAL DISTRESS SIGNAL

6 long blasts on your whistle
6 shouts or waves of your handkerchief or garment
6 flashes of your flashlight in quick succession
followed by a pause of about one minute

The answering signal is 3 long blasts, shouts, waves or flashes in quick succession followed by a pause of one minute.

Even if you hear an answering signal, continue to send your distress signal until you are sure that you have been located. Your signal will help any rescuers to 'home in' on your position which may be vital in limited visibility.

Fetching Help

No one should dash off to fetch help straight away! Splitting up a team is a drastic step & certain procedures must be followed.

❶ Decide which **two people** are going to fetch help - usually the best navigator and a fit member of the team.
❷ Communal camping gear must be redistributed so that **a tent, poles & flysheet are left behind** - it is not much use having the tent if one of those fetching help has departed with the poles!
❸ Ensure that **a stove, fuel and an ample supply of food remains with the injured and companions**.
❹ Those fetching help should **retain their personal emergency equipment**.

The number of Young People on an expedition team is between 4 and 7. A team of this size will enable 2 people to fetch help and 2, or 3, to stay with the casualty. Waiting for assistance to arrive may be a long & anxious time so, where possible, at least 2 people should stay at the scene of the incident.

❺ **The location of the incident must be carefully determined on the map and the grid reference noted.**
❻ Decide from **where to seek help** and **plan the route**. Everyone should know the grid reference, the position and where help is to be sought.
❼ **A written message must then be prepared**.
❽ It is essential that an **accurate diagnosis or assessment is made of any injury, illness, condition or situation** before summoning help and the diagnosis or assessment **must be written down**. Only by being provided with the fullest medical information can a rescue team or the emergency services render effective assistance in the shortest possible time.

Emergency Message

The written message must contain the following information:

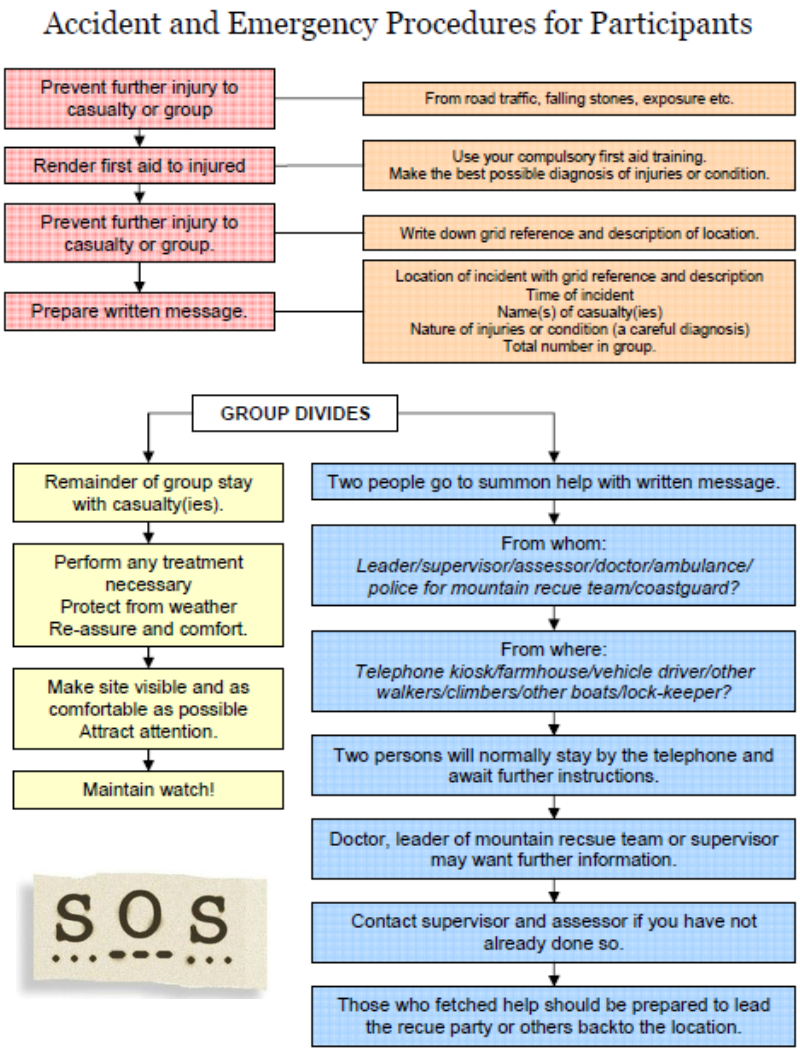
❶ The **location of the incident** with grid reference & a description of the location
❷ The **time** of the incident
❸ The **name(s)** of the injured
❹ The **nature** of the injuries
❺ The **number & names** of the rest of the team

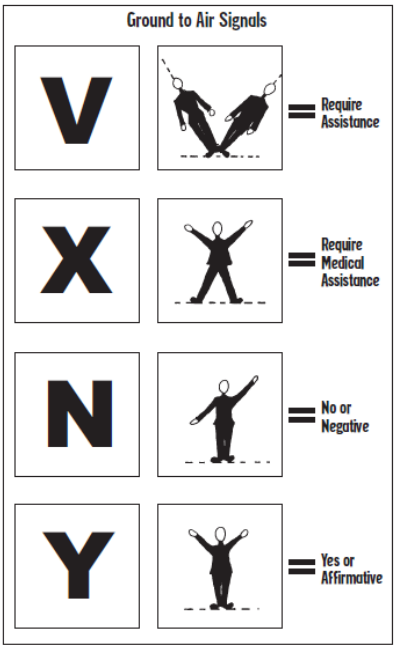
If a mobile phone is available, the information can be texted to the Award Supervisor or emergency services. Those fetching help should look around the locality very carefully and memorise the detail, as **they may have to lead the rescue party back to the scene of the incident**.

They should **note the time of departure** & then set off, looking back at frequent intervals to note the details of the terrain and route from the other direction. **They should head for a house, a farm, a road or other feature**.

In all probability, the house or farm will have a landline telephone. On reaching a road, **seek help from a passing motorist** - most will have a mobile phone. If appropriate, **dial 911 or the emergency services number for your location*** and ask for the police as they contact emergency services directly. The police, mountain rescue service, coastguard or the ambulance service may wish you to provide additional information. *Always carry coins in your emergency pack so that you can contact the Award Supervisor, Assessor or other responsible person and pay for any phone calls.*

*** Emergency numbers in Germany are 110** *(Police)* **and 112** *(Fire Brigade & Ambulance)*. **On a major road, look at the white kilometre stones or posts by the side of the road for arrows pointing in the direction of the nearest emergency telephone.**





Waiting For Help To Arrive

The people left behind have vital tasks to perform and **waiting for help must never be considered a passive role**. ❶ The tent will have to be erected or a shelter to be improvised, ❷ the casualty must be kept warm & insulated from the ground & given warm drinks *(but do not give drinks to a casualty likely to require an anaesthetic)*, ❸ **above all, the patient must be cared for & reassured.** The site can be made more visible by attaching a triangular bandage or brightly coloured garment to a stick or wall where it may flutter in the wind. This will help the rescuers who may arrive by land or air. In addition to the **International Distress Signal**, there is a code of signals for communicating with aircraft *(see image on left)*.

These signals can be made from clothing or anything else at hand & laid on the ground, or by a person taking up the shape of the letter standing up or lying down. **Remember** - if there is a chance of a helicopter landing next to these markers, you must make sure they are **well weighed down** as there is a risk of them being sucked into the engine intakes and fatal damage.

The Duke of Edinburgh's Award in Bermuda

Gold Overseas Qualifying Journey/
Lesson Seven |

Participant Outcomes | Wilderness First Aid & Emergency Procedures *(Part Two)*

The Duke of Edinburgh's Award places great emphasis on First Aid within the Programme.

The recommendation is that **each individual carry their own first aid kit** rather than there being communal kit for the whole team. This has the advantage that anyone becoming separated will have a first aid kit at hand. When individual kits are combined, they will provide sufficient resources to deal with major emergencies. An even greater advantage is that participants can customise the kits to their own particular needs.

Each kit must include any medicines or treatments which the individual needs for conditions such as asthma or diabetes, together with antihistamines and painkillers, as it is unlikely that these will be available from any other source.

Participants should know if they have any allergic reactions. An antihistamine may be important and the only effective remedy for dealing with stings and bites. If Participants are **allergic to an antibiotic** such as penicillin, or any other medicine or drug, they should **make this known to the Supervisor/Assessor** and the other members of the team.

This information is based on the current edition of the Authorised Manual of **The Bermuda Red Cross**.

Purpose: To preserve life/prevent further injury/promote recovery. Most common injuries on expedition are blisters, burns & bleeding.

FRACTURES, SPRAINS, STRAINS & DISLOCATIONS

These injuries may be hard for the lay person to tell apart. For this reason, First Aid treatment of any of these conditions is handled **as though the injury was a fracture**. Signs and symptoms may include a 'grating' sensation of bones rubbing together, pain, tenderness, swelling, bruising and an inability to move the injured part.
First Aid for any of these conditions consists of:

- ☑ Control bleeding, if present
- ☑ Care for shock
- ☑ Splint affected area to prevent further movement, but do so only if possible without causing further pain to victim
- ☑ Cold packs may help reduce pain & swelling

Victims with traumatic injuries, such as those caused by automobile accidents or falls should not be moved except by trained rescue workers. Head, neck & back injuries are serious & require special care for movement & transport of victims with these conditions. In exceptional circumstances, such as when a victim is at risk of further injury unless moved, the victim's head & neck should be stabilized & the body moved with minimal flexing of the head, neck or spinal cord.

ALL VICTIMS WITH FRACTURES, DISLOCATIONS, SPRAINS & STRAINS REQUIRE IMMEDIATE PROFESSIONAL MEDICAL ATTENTION.

BLISTERS

Blisters are an ever-recurring problem & **prevention is better than cure**. Make sure footwear is fitted properly & broken in. Wear two pairs of socks with boots - one thin & one thick. **DO NOT** pop blister unless it is on the sole of foot. If it is, then popping should be done in a sterilised situation, i.e. area as clean as possible with antiseptic wipe, use sterilised needle *(put in boiling water or in flame & allowed to cool)* & dress after popping. On arrival at your camp site, remove your boots and, if possible, move around without shoes and socks to allow your feet to harden.

Make sure that your feet are not in danger of splinters or cuts or you will only exchange one problem for another.

All other blisters should be covered with blister protection, such as **Compeed** *(www.compeed.com)* or the **Blister Kit** *(www.rei.com/product/121140)* & left to heal on their own. **At the first signs of discomfort, footwear should be removed and you should tend to the 'hot spot', even though it will bring the whole team to a halt.**

BURNS & SCALDS

Burns are caused by dry heat, i.e. touching a hot part of the stove. **Scalds** are caused by wet heat, i.e. spilling hot water on yourself. For minor burns, run the area under cold running water for at least 10 minutes. If no running water is available, a cold/wet compress should be used *(i.e. tea towel/flannel/t-shirt)*. Remove after 10 minutes & if still painful, leave for 5 minutes before returning to water. Avoid covering with any type of dressing that may stick to the wound. **Sunburns** should be cared for like any other burn.

REMEMBER - if a burn is bigger than your hand or on the neck, medical assistance should be sought right away

BLEEDING | RED

Rest | make casualty sit down

Elevate | where at all possible, raise the wound to slow blood flow

Direct Pressure | use a bandage/dressing to put pressure onto the wound until bleeding stops. Then clean & dress with plaster/pad & bandage. Clean only with water. If necessary, use a sling to keep wound elevated if on hand or arm. If there is dirt or a foreign object in the wound, water should clean out most of it. If the object is large, it should be considered a serious wound and **you should leave the object in the wound, apply direct pressure AROUND THE OBJECT and seek medical assistance. Remember - removing the object could cause more bleeding.** If the bandage becomes 'full', apply another **OVER** it. Do not remove the original as that will destroy the body's self-repair system. Limbs should be raised above the level of the heart to reduce blood flow. Medical assistance should be found if wound is serious or fails to recover.

INSECT BITES & STINGS

MAY BE LIFE-THREATENING TO PEOPLE WITH SEVERE ALLERGY TO THE INSECT'S VENOM!

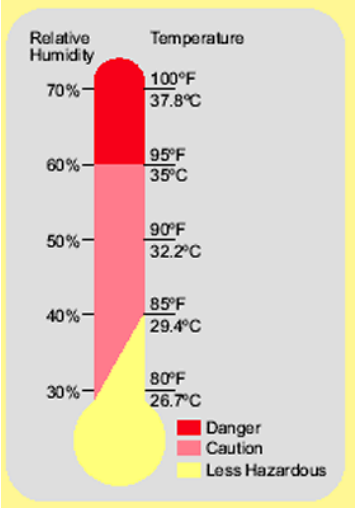
Ask the person if they are allergic to bee or insect stings. If they are, ask them if they have any direct medication, i.e. **AnaPen** *(www.anapen.co.uk)* or **AnaKit** *(www.rxlist.com/ana-kit-drug)*. Once the medication is given, seek medical assistance straight away. **Their life depends on it!**

If they are not allergic to stings, locate the stinger and try to remove it using tweezers or a credit card. Keep the area elevated and treat with **Wasp-eze** or similar product.

REMEMBER, IN ALL CASES OF INSECT BITES, WATCH FOR SIGNS OF ALLERGIC REACTION & IF THEY APPEAR, SEEK PROFESSIONAL MEDICAL ATTENTION WITHOUT DELAY!

HEADACHES

Headaches in wilderness activities are usually a symptom of another problem. Typically, headaches are the first sign that someone is **dehydrated** or suffering from **heat exhaustion**. **Heat Cramps** are the first & least severe signal that a person is suffering from overexposure to heat. If someone complains of muscle cramps or spasms in the legs and/or abdomen, have them rest in a shaded area and offer them a cool drink - water is preferred. A light stretch & some time to rest is usually enough to get their body core temperature to adjust itself. If heat cramps go uncared for, heat exhaustion may set in. If someone is suffering from **Heat Exhaustion**, they will look pale, ashen or flushed - typically in the face - and will be cool to the touch. They may also complain of nausea, dizziness, weakness and/or exhaustion. **DO NOT BE MISLED** - they may be in serious trouble at this stage!! Get them to a cool, shaded place to rest. Loosen or remove clothing & fan them while they **SIP SMALL AMOUNTS** of cool water. If their condition does not improve, seek medical attention right away. The final stage is **Heat Stroke**. This is the least common but most severe heat emergency. The person may have red skin that can be dry or moist to the touch, they may go in and out of consciousness and have a weak pulse and have rapid, shallow breathing.



Seek medical attention right away and give the same care as with Heat Exhaustion until medical attention arrives.

REMEMBER - if someone is unconscious, **DO NOT GIVE THEM WATER**.

A BASIC FIRST AID KIT LIST

- ☑ Ace Bandage: 3" wide roll
- ☑ Alcohol Wipes: 3 packs
- ☑ Aspirin or Tylenol: 12-24 tablets
- ☑ Antihistamine: 12 -24 tablets
- ☑ Antacid: small roll
- ☑ Band aids: 6-12 of various sizes
- ☑ Butterfly Band aids: 6-12 various sizes or Steri-Strip bandages.
- ☑ Cotton Swabs: 20-30 in waterproof container
- ☑ Decongestants: 12-20 tablets
- ☑ Duct Tape: 12" - 24" can be folded or wrapped around medicine bottle
- ☑ Gauze Pads: 4"x4" 6-12, 4"x8" or 5"x9" 2-3
- ☑ Latex Gloves
- ☑ Lighter: mini Bic
- ☑ Moleskin: Large patch
- ☑ Needles (2): sewing needle
- ☑ Prescription Drugs: as needed
- ☑ Razor Blade: single edge
- ☑ Scissors: small pair
- ☑ Sterile Ointment: small tube or packs. Can also be used to help start a fire!
- ☑ Surgical Tape: 1 roll
- ☑ Steri-Strip: 6-12 various sizes or Butterfly band aids
- ☑ Telephone numbers: List of emergency numbers
- ☑ Thermometer
- ☑ Tweezers

Wilderness First Aid & Emergency Procedures | ***Information based on the book*** **Camping & Wilderness Survival** ***by Paul Tawrell - ISBN 0.9740820.2.3***

Purpose: To preserve life/prevent further injury/promote recovery

TAKING ACTION | Those First Moments

Those first few moments are crucial to the victim's survival. Your knowledge of what to do in an emergency could either help remedy the emergency, or make it worse. Below is the sequence of actions when dealing with an emergency.

1. Remain calm; if you are at ease, the victim will be as well.
2. Keep the patient warm and lying down. Moving the patient may be dangerous because of the extent of outside injuries.
3. If the injured person is not breathing, start mouth to mouth respiration immediately.
4. Stop any bleeding.
5. Give your patient reassurance and look out for signs of shock.
6. Check for cuts and fractures. Be especially attentive of possible head, neck and spine injuries.
7. Do not crowd an injured person. Do not remove clothing unless it is imperative.
8. Decide if your patient is able to be moved to seek proper medical care. If not, begin preparing a shelter, with heat and food.

The ABC's of First Aid

There are three things you need to know right away about a victim: **if their airway is open**, **if they are breathing** and **if their heart is pumping**. If any of these life-sustaining things is not occurring, something needs to be done to ensure they begin soon!

Before beginning this initial **Situation Assessment** on an unconscious victim, kneel down and try to wake the person up. If you can't wake the person up, follow the Accident and Emergency Procedures for Duke of Edinburgh's Award Participants and, if possible, **dial 911 or the emergency services number for your location*** or find your Award Supervisor and/or Assessor.

A | Airway

Put your ear close to the person's mouth and nose, and turn to look at the person's chest to see if it is rising and falling. Listen to hear if air is moving in and out. Feel for the person's breath blowing against your ear. **This will tell you if the Airway is open and if Breathing is going on**. If you can't detect breathing, we figure the airway is blocked. If the person is lying on one side, you'll have to roll him or her back to open the airway. Tip the forehead back and lift the chin a little. This head-tilt/chin-lift method moves the tongue and opens the airway. The victim might start breathing as a result of this repositioning. It is important to do a sweep of the mouth by bending your index and middle finger into a cup shape and quickly sweep through the open mouth.

B | Breathing

When we breathe, air is drawn into our lungs, takes oxygen from the air and carbon dioxide is breathed out. If a victim's airways have been open and there is still no air moving in and out of the lungs it is important that some is pumped there soon. **This is called Rescue Breathing and the best way to learn it is in a First Aid Course**. While giving Rescue Breathing, it is important to hold the person's airway open, pinch the person's nose closed and seal your mask over his or her mouth. Blow in one full breath, wait until the chest falls down and blow in a second breath. Watch the victim's chest to make sure it moves, when you blow air in. If not, chances are the airway is not open. Tilt the person's head a little more and try again. You will have to clear the airway if this does not work. Learn how to do this by taking a First Aid Course, offered by **The Bermuda Red Cross** or **St. John Ambulance**.

C | Circulation

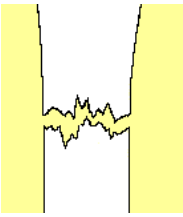
Circulation is when blood moves through the body, carrying oxygen through the body and food to our cells. To check circulation, feel for a pulse, the thumping sensation means the heart is pumping. The simplest way to do that is to slide your index and middle finger in the valley under your neck, beside your Adam's Apple. Another way to check for a heartbeat is to press your ear against the person's chest. People who have no pulse have a heart that has stopped beating. They need chest compressions of **Cardio-Pulmonary Resuscitation (CPR)**, which can be done by placing hands over the victim's lower third of the sternum. CPR alternates between 30 chest compressions and two breaths and then 30 more compressions. It's a 30-2, 30-2 pattern. It's important to take a CPR class to learn how to perform CPR effectively and to remember that someone who is bleeding severely can bleed to death if we don't stop the blood from circulating out of the body.

When Bleeding...

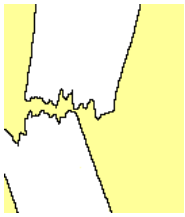
Blood may contain diseases, so it is important to have the victim try to stop their own bleeding, or have Latex gloves available. To control bleeding, elevate the wounded area above the heart and apply pressure using gauze, a clean cloth, or other materials found such as dried seaweed or moss. Place pressure on the wound.

Coping with the Broken Truth

There are two types of fractures:



1 | Simple (open)



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2 | Compound

Signs of a Fracture:

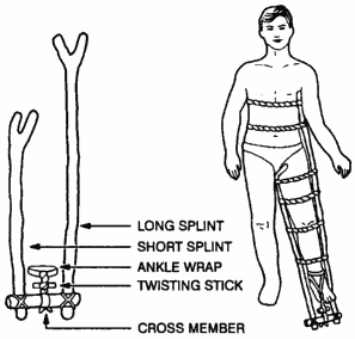
- ☑ Pain in the affected area
- ☑ The area may or may not be deformed
- ☑ The victim is unable to place weight on the limb without experiencing intense pain
- ☑ A grating sensation during motion of the injured area

Treatment of a Fracture:

Always treat an injury as a fracture to prevent the victim's condition from worsening. Splint the joint above and below the fracture. If the fracture seems to penetrate the skin, apply traction to straighten the deformity. Pad the splits and be sure the splints do not hinder circulation. Cover all open wounds with clean dressings before splinting.

WARNING! Maintain traction at all times. Muscle spasms tend to pull against the traction that the second rescuer is applying. Without traction, these spasms yank the broken bone into angulations, causing extreme pain and risking heavy bleeding. Femur fractures are often associated with heavy bleeding. Maintaining traction can reduce bleeding.

How To Make a Traction Splint



Larger bones, such as the femur in your leg require you to make a Traction Splint, to ensure the broken bones are not rubbing against one another. To make a Preliminary Traction Splint, immobilize the fracture, because any movement can worsen the injury. Apply traction by having a second rescuer gently pull on the heel to straighten the leg. Maintain traction throughout the entire splinting process. Find rigid material to extend below the crotch to below the knee. Any sticks or pieces of wood long enough will work well. Gather materials to tie the splint in place, such as bandanas, belts, clothing, pack straps or triangular bandages. Make sure the leg is straight. Place the splinting material along the underside of the leg so it extends from the crotch to below the underside of the knee. Fold the splinting material up around the sides of the leg. Tie the splinting material into place below and above the fracture. Make sure the knee is immobilized & check circulation, sensation & motion beyond the fracture site to make sure the splint isn't too tight.

Treatment of a Dislocation

Dislocations are the separations of bone joints causing the bones to go out of proper alignment. These misalignments can be extremely painful & can cause an impairment of nerve or circulatory function below the area affected. You must place these joints back into alignment as quickly as possible.

Signs and symptoms of dislocations are:

- ☑ joint pain
- ☑ tenderness
- ☑ swelling
- ☑ discoloration
- ☑ limited range of motion
- ☑ deformity of the joint

You treat dislocations by reduction, immobilization, and rehabilitation. Reduction or 'setting' is placing the bones back into their proper alignment. You can use several methods, but manual traction or using weights to pull the bones are the safest and easiest. Once performed, reduction decreases the victim's pain and allows for normal function and circulation. Immobilization is nothing more than splinting the dislocation after reduction.

You can use any field-expedient material for a splint or you can splint an extremity to the body. The basic guidelines for splinting are:

- ☑ Splint above and below the fracture site
- ☑ Pad splints to reduce discomfort
- ☑ Check circulation below the fracture after making each tie on the splint

Coping with the Shock of Shock

Shock is a depression of all of the body processes and may follow any injury regardless of how minor. Factors such as haemorrhage, cold and pain will intensify shock. When experiencing shock the patient will feel weak and may faint. The skin becomes cold and clammy and the pulse, weak and rapid. Shock can be more serious than the injury itself, it may even be fatal.

Move the victim to cover, if there are no neck, spine or back injuries. If there are no head or chest injuries, place the patient on their back with the head and chest lower than the legs. This will help the blood circulate to the brain, heart, lungs and other major organs. If severe head and chest injuries are present, elevate the upper body. If chest injuries are present, elevate the injured side to assist in the functioning of the uninjured lung. Elevate the victim's feet higher than the level of their heart. Loosen clothing at the neck, waist, or wherever it may be restrictive. If the injured person becomes unconscious, place them in a face down position to prevent choking on blood, vomit or the tongue. Keep your patient warm and under shelter.

Moving Someone into Recovery Position

It is important for an unconscious victim to be moved into **Recovery Position**, to prevent choking on blood, vomit or their tongue.

Step 1

Put one arm out and fold the other over their chest.

Step 2

Support their head and lift their knee.
Keep your knees close to the body of your friend and gently roll them away.

Step 3

Recovery Position

Source: http://comingbackalive.com/firstaid.html

Remember…

Size-Up The Situation *(condition, tools, surroundings)*

Use All Your Senses, Undue Haste Makes Waste

Remember Where You Are

Vanquish Fear and Panic

Improvise

Value Living

Act Like the Natives/Locals

Live by your Wits, but for now, Learn Basic Skills

NOTES: