

# **Adventurer's MK**

## **FIRST RESPONDER**

### **RATIONALE FOR ADVENTURE**

This adventure will provide Adventurer's with an introduction to the skills and responsibilities of a first responder. Activities will cover essential personal safety and first aid skills.

### **TAKEAWAYS FOR ADVENTURER'S**

- Essential first aid skills.
- Essential personal safety skills.
- Understanding of the role of the first responder in the local community.

### **ADVENTURE REQUIREMENTS**

Do all of these;

- 1 Explain what first aid is. Tell what you should do after an accident.
- 2 Show what to do for the hurry cases of first aid:
  - Serious bleeding
  - Heart attack or sudden cardiac arrest.
  - Stopped breathing
  - Stroke
- 3 Show how to help a chocking victim
- 4 Show how to treat for shock
- 5 Demonstrate that you know how to treat the following:
  - Cuts and scratches
  - Burns and scalds
  - Sunburn
  - Blisters on the hands and feet
  - Broken arm or hand
  - Insects bites and stings
  - Nosebleed
  - Frostbite
- 6 Put together a simple first aid kit. Explain what you included and to use each item correctly.
- 7 Create and practice an emergency readiness plan

### **MEETING PLAN**

#### **PREPARATION AND MATERIALS NEEDED**

Four index cards

Set of scenarios cards

Materials for hurry cases

Divide into teams of two or three

### **REQUIREMENT ONE**

ASK: What does first aid really mean? *First aid is knowing what to do first and to aid in the recovery of injury or medical emergency.*

ASK: What things would you need in a first aid kit?

ASK: What number do you call in an emergency and what information should you give to the emergency services?

ASK: What is the first thing you should do when you come across an accident or emergency?  
*Check it is safe to approach, and then check the injured person is okay*

### **IN THE EVENT OF AN ACCIDENT**

1. Avoid injury to yourself by looking for possible danger or risks and making the area safe as possible for you and the injured person before you deliver first aid.
2. Do not move the injured person unless you have no other choice.
3. Identify any help available nearby. This may be in the form of people or medication.
4. If you are alone, try to attract the attention of other people who can help with calling 999 or getting medical equipment or supplies.
5. If there is more than one person injured, start delivering first aid on the person who has the most serious or life-threatening injuries. (unconsciousness or severe bleeding)
6. If the injured person does not respond to you asking their name or gentle shaking, begin the steps in the CPR section.
7. If a casualty refuses help or first aid, call 999 and explain the situation and watch them until help arrives. If you need to attend other casualties, make sure someone stays with the first injured person as they should not be left alone

### **REASSURING PATIENTS**

Being able to reassure someone who's injured is important in a first aid situation. The injured person is likely to be anxious, worried and confused. Take a few deep breaths to clear and calm your mind before you make any decisions on first aid treatment.

### **WAYS TO REASSURE SOMEONE WHO HAS BEEN INJURED**

- Ask the casualties name.
- Crouch or sit beside them.
- Talk in a manner that's quiet but firm and direct in order to build trust and confidence.
- Place a hand on their hand or shoulder and also check to see if their hand is cold.
- Explain to them what actions you're planning to take.
- If you are treating children, use simple language and if the parents are there, involve them to gain their trust.
- Listen carefully to what they say, without interruption. Nod and tell them you've understood, asking them to repeat and summarise what they have just said.

### **MAKING AN EMERGENCY CALL**

Stay calm, speak clearly

Dial 999

Operator: Emergency operator which service please?

Respond: Ambulance please.

Operator: What is your emergency?

Respond:

- ❖ What is your name.
- ❖ What number you are calling from.
- ❖ Where you are located.

- ❖ What has happened,
- ❖ How many people are involved - and
- ❖ what you are doing or have done.

## **REQUIREMENT TWO**

Dealing with injuries:

### **Wounds and infections:**

With lots of sharp tools, jagged edges and sharp surfaces, there are all sorts of hazards that can lead to cuts, scrapes and puncture wounds. Knowing how to treat a serious wound and prevent it from getting infected is an extremely useful first aid skill.

### **Controlling Bleeding**

Most bleeding can be stopped using direct pressure onto the wound and elevation of the wound above the heart. Always make sure you put gloves on before touching someone else's blood.

Hand the patient a piece of clean gauze and tell them to put pressure on their own wound whilst you make a pressure bandage by placing gauze over the wound and wrap it tightly with a bandage. If the gauze is getting saturated add more gauze on top but do not remove any existing gauze that's already in the wound.

### **Preventing Infection**

Once the bleeding has been successfully controlled, the first step is to wash or "irrigate" the wound with at least half a litre of clean water. The goal is to flush out any dirt and germs that have already made their way under the skin. If there are any large pieces of dirt be sure to carefully pull these out using tweezers.

When the wound is relatively clean you can cover it in antibiotic ointment and then clean gauze and a wrap to hold it securely in place. Check the wound once or twice a day to reapply the ointment and monitor for signs of infection. A little bit of swelling, warmth, redness and puss is normal as the body fights off bacteria. But if the symptoms get more extreme – hot to the touch, bright red, hardening of the skin, painful and itchy – then that's a sign that the body is losing its battle against an infection and you need to step in. Remove all the gauze, open the wound back up and re-clean it very thoroughly with at least a full litre of water.

### **Burns and Scalds**

Burns (caused by dry heat) and scalds (caused by wet heat)

The very first step for treating burns is to stop the burning process. Immediately soak the affected area in cold, clean water for at least 20 minutes or until the pain is relieved. Cover the burned area with cling film placed lengthways or a clean plastic bag is also idea to cover a hand or foot. A clean (non fluffy) gauze can also be used if no cling film available, and keep the wound elevated to reduce swelling.

### **Knee and Ankle injuries**

"usable" injuries where the patient still has most of the mobility in their joint and can comfortably put weight on it, then the common RICE acronym is your guide.

- Rest. Especially if each use causes pain, which is a sign of tendinitis.
- Ice. Alternate 20 – 30 minutes of cooling with 15 minutes of warmth.
- Compression. Support the injury by wrapping it with an elasticated bandage. Making sure circulation is preserved.

- Elevation. Have the patient lie down and elevate above chest height.

“Unusable” injuries where the patient can’t easily move the joint through its full range of motion or feels pain when putting weight on it, then the joint should be splinted in a comfortable position.

### **Broken Bones**

It can be difficult to tell the difference between a break and soft tissue damage. If in doubt treat the injury as an “unusable” injury. Keep the casualty still to prevent further damage, gently supporting the injured limb. Where the fracture is open, where the covering skin is broken or bone is sticking out through the skin, cover with a sterile dressing and tie the limb to a splint.

### **HEAT AND COLD INJURIES**

“Hypothermia” is the rapid lowering of your body’s core temperature. “Hyperthermia” is the raising of your body’s core temperature and comes in two general stages: heat exhaustion and then heat stroke. Both these conditions develop over periods of continued exposure to the elements, and can be exacerbated by poor planning and poor supervision.

#### **Heat Exhaustion (In hot weather ration sweat not water)**

Heat exhaustion is caused by an extreme loss of salt and water from the body through excessive sweating and is a warning that the body is getting too hot. Without treatment a person may develop heat stroke which is particularly dangerous and requires immediate medical treatment.

Signs and symptoms of heat exhaustion are:

- Cramp in the arms, legs or stomach
- Headache
- Pale, moist skin
- Fast weak pulse
- Thirsty or nauseous
- Giddy or confused
- This condition occurs when a person has been sweating heavily while working in warm conditions. Symptoms generally include tiredness, flushed skin, and heavy sweating. Thirst is usual and subject may feel dizzy upon standing.
- Lie the patient down in a cool place, remove outer layer of clothing and raise their legs to improve blood flow. Fan the casualty and cool them with water.
- Treatment consists of rest in a cool location and drinking of cool water. Subject can be further cooled by wetting down and/or fanning.

#### **Heat Stroke**

- Heat stroke occurs when heat is being produced faster than it can be shed. The core temperature can rise above 105° F. Disorientation and bizarre personality changes may be a common sign. Skin turns hot and red and sometimes (but not always) dry.
- To treat subject must be cooled rapidly. Remove heat retaining clothing and cool with water & fanning. Concentrate cooling effort on head and neck. Cold packs may be used on head neck groin, hands and feet. Allow subject to drink cool water when they are able to accept it.
- Subject must see a doctor ASAP

### **Sunburn**

Sunburn is the result of the suns UV A and UV B ray’s on your skin over a period of time. It can start with a minor burn which shows red on your skin, followed by more serious burns that could include

second degree (blisters) or third degree burns. Exposure to the sun is a known cause of skin cancer. The amount of time it takes to burn your skin depends on several factors:

- a. your genetics;
- b. the protection that you put on – sunscreen (SPF 15 or more!) or protective clothing;
- c. amount of time you spend in direct sunshine (note that the sun's rays can still burn you through light cloud/fog/smog/mist, as well as shallow water);
- d. time of year – there is more risk during summer, but you can still get sunburn on the coldest day of winter!
- e. pollution, and other meteorological factors; and
- f. your state of health, medication you might be taking, and other physiological factors.

UV Index – indicates the intensity of the sun's UV rays on a given day. There are four categories -- low, moderate, high and extreme. A low UV Index means it will take more than an hour to burn your skin; an extreme level means it will take less than 15 minutes. The index is often included with weather reports. Protect yourself by:

- a. covering up – wear light clothing, long sleeve shirts and full length trousers (or long shorts at least). Always wear a hat, preferably with a wide brim;
- b. applying sunscreen to exposed skin every 2 hours, or more often if you are near water or perspiring heavily. Put sunscreen on your skin at least 20 minutes before you go out in the sun. Get used to wearing sunscreen, paying particular attention to the most exposed parts – ears, face, neck, shoulders and back, knees and tops of feet. Do not forget your lips, ears and nose. These parts of your body burn easily; and
- c. reducing or avoiding extended exposure during the peak sun hours, 1000-1600hrs.

A sunburn gets worse, even after you move out of the sun. It's a delayed reaction, with most of the pain occurring 12-24 hours after exposure. Because their skin is thinner and more sensitive than an adult's, children and teenagers need extra protection from ultraviolet radiation. A tan indicates that your skin has already been damaged.

### **Dehydration**

Around three quarters of our bodies are made up of water, we are constantly losing water through breathing, sweating and urinating. If we don't replace this water our bodies will begin to dehydrate and eventually die.

Signs of dehydration:

- Feeling thirsty
- Dry mouth, eyes and lips
- Lack of appetite
- Impatience
- Lethargy and nausea
- Headache
- Dizziness or light headed
- Inability to walk
- Delirium

Rest the patient in a shady area, give them plenty of fluids drinks slowly, and keep them cool.

### **COLD**

Hypothermia, or “exposure,” is the most severe form of cold-related injury. It is defined as a body temperature of less than 35° Celsius or 95° Fahrenheit. Hypothermia is a major danger because the symptoms come on so gradually that many victims and their teammates don't notice them until it's too late. Hypothermia is usually first noticed when a person is shivering and can't stop. At this point the condition is not serious and can be treated by getting the person warm, dry and sheltered.

Warm food and drink will also help. Severe hypothermia starts when the person stops shivering –

their body is giving up trying to stay warm. They will become drowsy and eventually lapse into unconsciousness and die without treatment. You can become hypothermic in almost any weather, in any season – but especially in cold, wet and windy environments. Protect yourself from wind and precipitation, keep warm and dry, and make sure you are fit, well-fed and well-rested before working in the cold. Every person who displays signs of hypothermia must receive appropriate first aid immediately – that means stop at the closest safe location and treat the person! Mild hypothermia can degrade into serious in a short amount of time.

Victims of serious hypothermia must receive medical attention. In cold weather you must also beware of frostbite. Frostbite happens when soft tissue freezes. It is a particular danger on days with a high wind-chill factor. If not properly treated, frostbite can lead to the loss of tissues or even limbs. Exposed and remote skin (face, ears, fingers and toes) is often the first to freeze. Prevent frostbite by wearing appropriate clothing, mitts, hat/toque, socks and footwear. Keep active in a cold environment and stay dry. Treat frostbite by slowly warming the affected area. Do not allow this area to freeze again or the flesh cells will die. In cold weather partner yourself together to watch each other for signs of cold related injuries.

### **Hypothermia (Killer of the unprepared)**

Hypothermia is a lowering of the body's core temperature to a point where normal brain and/or muscle function is impaired which usually occurs when the body temperature falls below 35C.

#### **Stages of hypothermia:**

- **Mild** – Symptoms include shivering, difficulty performing complex tasks (fumbles), confusion, apathy, sluggish thinking (grumbles) sluggish speech (mumbles), and altered gait (stumbles).
- **Moderate** - Worsening of the umbles along with uncontrollable shivering.
- **Severe** – Shivering stops; patient displays increasing muscular rigidity, stupor progressing to a coma, decreasing pulse and respiration to a point where they're undetectable

#### **Hypothermia Prevention**

- Wear clothing that retains body heat when wet.
- Stay dry by managing clothing layers, removing layers as you warm up and adding layers back as you cool down.
- Drink plenty of water.
- Eat lots, especially carbohydrates.
- Maintain a pace that prevents overexertion.
- In a group, watch for signs of hypothermia in others.

### **Allergy**

An allergy is an abnormal reaction of the body's defence system. These can include pollen, dust, nuts, shellfish, eggs, wasp or bee stings. People who know they will have an extreme reaction to a trigger substance often carry medication in the form of an anti-injector (epi-pen)

Symptoms of an allergic reaction include:

- Swelling and itching.
- Blotchy red skin or itchy rash spreading over the body
- Swollen, itchy eyes
- Swelling in the throat, difficulty breathing or wheezing
- Dizziness, anxiety and apprehension
- Stomach cramps, vomiting or diarrhoea
- Sudden drop in blood pressure leading to unconsciousness.

If the person is conscious and has an auto injector, help them to use it. If they're unable to do it themselves, hold the auto injector in your fist, pull off the safety cap and press the tip against their thigh through their clothing. This will automatically inject the person with the drug.

### **REQUIREMENT THREE**

The Primary Survey is a quick way for you to find out if someone has any injuries or conditions which are life-threatening. If you follow each step methodically, you can identify each life-threatening condition and deal with it in order of priority.

Use the letters DR. ABC to remember the steps: Danger, Response, Airway, Bleeding and Circulation.

Airways:

#### **Danger:**

If someone needs help, before you go up to them check – is it safe?

- No: If you can see or hear any danger nearby, for you or them, like broken glass or oncoming traffic, then make the situation safe before you get any closer
- Yes: If you can't see or hear any danger then it is safe to go up to them.

#### **Response:**

Do they respond when you ask them: 'Are you alright?' or you give them a gentle shake?

- No: If they don't respond, pinch their ear lobe or gently shake their shoulders, or with a child - tap their shoulder, and with a baby - tap their foot. If they still don't respond, then you can presume they're unresponsive. If they're unresponsive, tilt their head and lift their chin to open their airway. Someone who's unresponsive should always take priority so you should treat them first and as quickly as possible.
- Yes: If they respond by making eye contact with you or some gesture then you know that they're responsive and you can move on to the next stage – Airway.

#### **Airway:**

Is their airway open and clear? Look, listen and feel for normal breathing – chest movement, sounds and breaths on your cheek. Do this for no more than ten seconds:

- No: Treat them for conditions that may be blocking their airway, such as choking or an obstructed airway.
  - ❖ If unresponsive and not breathing, you'll need to do CPR (which is short for cardiopulmonary resuscitation). CPR involves giving someone a combination of chest compressions and rescue breaths to keep their heart and circulation going to try to save their life. If they start breathing normally again, stop CPR and put them in the recovery position.
- Yes:
  - ❖ Place one hand on the casualty's forehead and gently tilt their head back. As you do this, the mouth will fall open slightly. Place the fingertips of your other hand on the point of the casualty's chin and lift the chin. This will open the airway
  - ❖ Put them in the recovery position. This will keep their airway open.

#### **If you suspect spinal injury**

If you think the casualty could have a spinal injury, you must keep their neck as still as possible. Instead of tilting their neck, use the jaw thrust technique: place your hands on either side of

their face and with your fingertips gently lift the jaw to open the airway, avoiding any movement of their neck.

### **Bleeding:**

There are three general types of bleeding that can occur from injuries:

1. CAPILLARY BLEEDING: These are smaller wounds that have just affected the capillaries. The blood will ooze out. These injuries are not crucial but care should still be taken to prevent infection.
2. VENOUS BLEEDING: If a vein has been severed, then more blood will come out of the wound. The blood will not spurt but rather comes out steadily. Venous bleeding can be dangerous in some situations, especially if multiple veins are affected.
3. ARTERIAL BLEEDING: This is the most critical type of bleeding. The blood will come out in spurts and will be brighter red in colour. Because arteries are typically under so much pressure, it is important to have lots of pressure put on the wound to stop the bleeding. The heart is literally pumping blood right out of the body. You should also elevate the injured area above the heart.

### **If there's an object in the wound**

If there's an object in there, don't pull it out, because it may be acting as a plug to reduce the bleeding. Instead, leave it in and apply pressure either side of it with a pad (such as a clean cloth) or fingers, until a sterile dressing is available.

### **Circulation:**

When vital organs do not receive enough oxygen due to reduced blood circulation then shock sets in. Shock can be a life threatening condition and should be treated immediately. If there are signs of shock but no visible injuries, there could be internal bleeding.

Early signs of shock are:

- Cold and sweaty skin, pale or tinged with grey.
- Rapid pulse becoming weaker.
- Shallow, fast breathing.

If they are showing signs of shock:

- Lay them down with their head low and legs raised and supported, to increase the flow of blood to their head. Do not raise an injured leg.
- Loosen any tight clothing around the neck, chest and waist to make sure it doesn't constrict their blood flow
- Fear and pain can make shock worse, by increasing the body's demand for oxygen, so while you wait for help to arrive, it's important to keep them comfortable, warm and calm. Do this by covering them with a coat or blanket and comforting and reassuring them
- Keep checking their breathing, pulse and level of response.
- If they become unresponsive at any point, open their airway, check their breathing, and prepare to treat someone who has become unresponsive.

### **Heart attack**

If you think someone is having a heart attack, look for the four Ps:

1. Pain – a continuous pain in the chest, which could spread to the jaw, neck or arms
2. Pale skin
3. Rapid and weak pulse

#### 4. Perspiration/sweating

What you need to do - Heart attack

Help move them into the most comfortable position. The best position is on the floor leaning against a wall with knees bent and head and shoulders supported. This should ease the pressure on their heart and stop them hurting themselves if they collapse.

Give them a 300mg aspirin, if available and they're not allergic, and tell them to chew it slowly.

Be aware that they may develop shock. Shock does not mean emotional shock, but is a life-threatening condition, which can be brought on by a heart attack.

Keep checking their breathing, pulse and level of response.

If they lose responsiveness at any point, open their airway, check their breathing, and prepare to treat someone who has become unresponsive. You may need to do CPR.

#### **Cardio-Pulmonary Resuscitation (CPR)**

Lay the patient flat on their back, gently tilting the head back and lifting the chin with two fingers. Remove any objects from the mouth and nose.

Begin the cycle of 30 chest compressions and two rescue breathes. Place the heel of one hand on the centre of their chest and place your other hand on top of the first interlocking your fingers, keeping your fingers away from the body. Lean over the casualty and with your arms straight press down on the breastbone by (5 – 6 cm). Allow the chest to come back up without taking your hands away and repeat at a rate of 100 – 120 compressions a minute.

After every 30 compressions pinch the nose closed, Take deep breathes and place your mouth over their mouth and blow steadily into their mouth and look towards the chest to check that it rises. Remove your mouth and the chest should fall. Repeat for another rescue breath and continue with the chest compressions.