

THE CONDENSED GUIDE TO OUTDOOR FIRST AID

Part 1: The Boring Basics – planning & preparation

THE 7 P'S OF PLANNING:

1. Preparation
2. Preparation
3. Preparation
4. Preparation
5. Preparation
6. Preparation; and
7. Preparation.



There are many types of accident or illness you might encounter. Having a plan and a systematic approach, which you adapt to the particular situation can save time and lives.



Risk avoidance: things to do

Trip leader:

- Consider communication options:

- PLB



- Mountain radio



- Will you have mobile coverage



- Check who in your party has first aid skills 

- Ask if anyone has medical conditions you need to know about (medication?)

- Have emergency shelter for day trips

- Bothy bag / tent fly



Members:

- Check your first aid kit 

- Tell leader about medical conditions, if appropriate

- Asthma, diabetes, extreme allergies, heart conditions, etc.

- Where do you keep medication 

- Tell leader if you have first aid skills 

- Check forecast – have appropriate gear & food & water 

- Be equipped for emergency

- You may be delayed / benighted



Mountain Radios & PLB's

Mountain radio

- High frequency radio
- Daily scheduled contact time to communicate weather, location & route (“scheds”)
- 2- way communication
- Reception in most mountain areas
- Can inform re delays to avoid unnecessary rescue call outs
- Good chance that emergency call outside scheds will be picked up by another service
- Large & heavy
- Long wire antenna to erect (40m)
- Communication may only be possible at scheds



PLB

(Personal Locator Beacon)

- Small emergency distress beacon
- Emits radio signal when activated
- Signal picked up by satellite/aircraft & relayed to RCCNZ
- **Only to be used in life-threatening situations**
- Small & lightweight
- Use international distress frequencies
- No set up required
- Some units GPS enabled
- Require line of site to satellite (less effective in valleys & gorges)
- Communication is one way so you don't know if signal received



Risk avoidance: things to consider...

Weather Forecast



Ice

Snow

Wind



Avalanche Risk



Rivers



! think ahead !

MSC recommended group first aid kit

- 1 - Crepe bandage: 10cm & 15cm
- 2 – triangular bandages
- 10-12 various plasters
- 1 – Dressing Strip
- 3 – non sticky dressings
- 6 – gauze dressings
- 1 – medium wound dressing
- 1 – large wound dressing
- 1 – pack butterfly stitches
- 1 – roll tape
- 2 – saline 30 ml ✘
- 10 – alcohol wipes
- 1 – box paracetamol ✘
- 10 – antihistamine tablets ✘
- 10 – diarrhea tablets ✘
- 4 – re-hydration sachets ✘

- 1 – thermometer ✘
- 1 – pair scissors
- 1 – pair tweezers
- 1 - Needle
- 2 – pairs disposable gloves
- 1 - CPR face shield
- 1 - Note book !
- 1 - Pen / pencil !
- Assorted safety pins
- Chemical heating packs ✘

Foil wine/juice bladder: ✘

Spare water bottle, splint, padding for splint, cold compress, hot water bottle, small pillow, reflector for signaling, dressing for open chest wound

MSC recommended personal first aid kit

- 1 – crepe bandage
- 1 – triangular bandage
- 6-10 – plasters
- 1 – large dressing
- 2-3 – non sticky dressings
- 2-3 gauze dressings
- 1 – roll tape
- 3-6 Antihistamine tablets
- 4 – aspirin tablets
- 2 – safety pins
- 1 – pair scissors
- 1 – pair disposable gloves
- 1 – CPR face shield
- 1 – note book!
- 1 – pen / pencil!
- Insect repellent
- Sun block
- Lip balm
- Any medication **you** need
(prescribed or OTC)

DO NOT RELY ON OTHERS OR THE GROUP KIT – YOU SHOULD BE ABLE TO LOOK AFTER YOURSELF

The disaster plan (adapt to fit)

1. DANGER:

Rock fall, avalanche,
flame, river, exposure

What can kill/harm

Me

Patient

Group

Only move patient if patient in danger

2. PATIENT MANAGEMENT:

- Best first aider – cares for patient
- Note taker ?
- Runner – messages for first aider ?

If more than one patient, first aider triages & manages accident site

LEADER

3. GROUP MANAGEMENT:

Nominate someone to manage rest of party

They may need to:

- Set up shelter
- Prepare food / hot water
- Go for help
- Move to less exposed position

4. DECISION:

Can the trip continue:

Now or later?

- OR -

Abort trip:

Walk out or arrange evacuation?

Patient(s) Management:

- Do not move patient until primary & secondary survey completed unless patient in danger



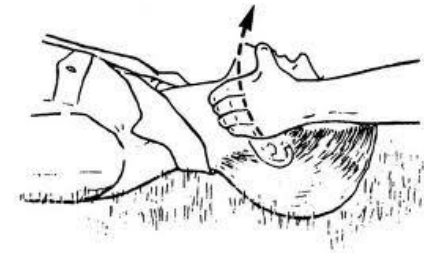
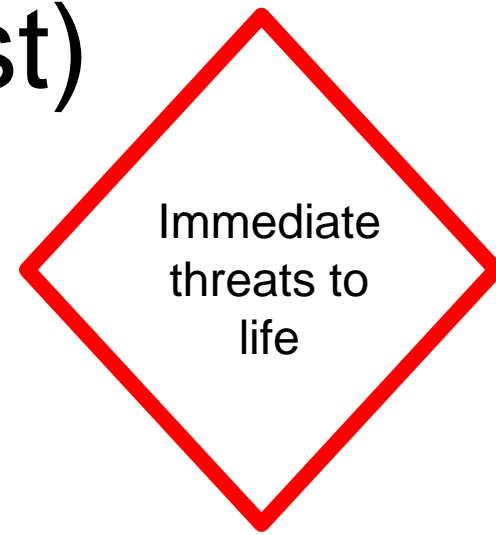
Remove danger from patient as first choice

- More than one patient: triage (sort & sift) and delegate
- Primary survey (dealing with immediate threats to life)
- Secondary survey (finding out what else is wrong)



Primary Survey (fast)

- **D**anger – to me, patient, others
- **R**esponse: Alert / Voice / Pain / Unconscious
 - Alert / Voice responsive = can maintain own airway
 - Pain / Unconscious = maintain airway for them
- **A**irway: open / clear airway
 - Head tilt, chin lift
 - Jaw thrust if suspect spinal injury
 - OPA if carry & know how to use
- **B**reathing: Breathing well enough to support life?
 - Look, listen, feel. If not, why not?
- **C**irculation: pulse, colour, temperature
 - Not breathing and no circulation = **CPR**
- **S**evere bleeding – quick top to toe check
 - Apply pressure, elevate.



Airways & CPR

- If more than 1 rescuer:
 - 1 starts CPR → 1 calls for help (phone, mountain radio, PLB)
→ continue CPR as a team
- 1 rescuer & patient child/infant **or** likely cause is injury or drowning:
 - CPR 1 minute → call for help → resume CPR
- 1 rescuer & patient adult and likely cause of injury not drowning:
 - open airway → call for help → start CPR
- Continue CPR until
 - Patient recovers (!)
 - Medical help arrives
 - All rescuers too exhausted to continue



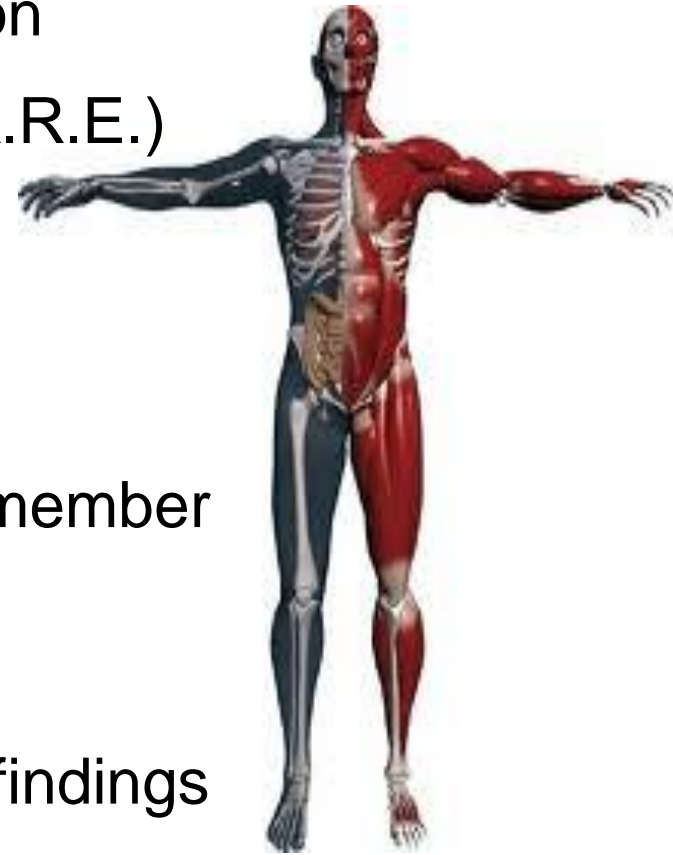
CPR: cardio pulmonary resuscitation

- 30 chest compressions : 2 breaths
- Compressions
 - Mid-chest across nipple line
 - Adult: 2 hands, straight arms, depth of 4-5 cm
 - Child: 1 or 2 hands, straight arms, depth = 1/3 chest
 - Infant: 2 fingers, depth = 1/3 chest
 - Rate or 100 bpm
- Breaths
 - Maintain open airway (head tilt, chin lift / jaw thrust / OPA)
 - Clear airway (remove obstructions)
 - Pinch nose, open mouth, make seal over lips
 - Watch for rise of chest
 - Consider breathing through nose/only use compressions
- Check for signs of life every 3 minutes



Secondary Survey: **Top To Toe** (adapt)

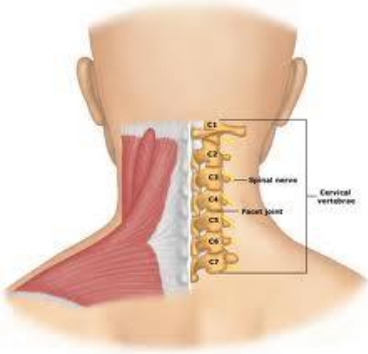
- Methodical check of whole patient to determine injuries
- Performed after immediate threats to life dealt with
- If possible leave patient in original position
- Always ask the patient's permission (C.A.R.E.)
- Respect / provide privacy
- Tell the patient what you are doing, even if unconscious
- Compare one side to other or uninjured member of party
- Look for medic alerts as you go
- If possible, have someone take notes of findings
- Be gentle but firm.
- Stop & investigate pain - unconscious patients can indicate pain



How to do a full **T**op **T**o **T**oe survey

Head

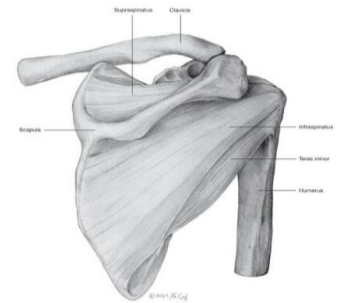
- Fluid from nose / ears / mouth
- Symmetry / check for broken bones
- Mouth: damaged teeth / foreign matter
- Skull: depressions / bleeding / tenderness
- Eyes: PEARL – finger test



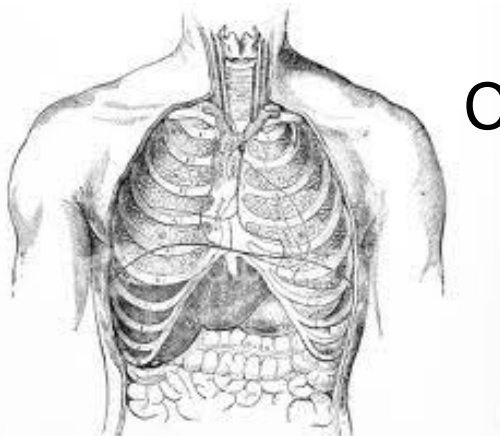
- ## Neck
- Patient unconscious after *accident* – assume neck injury
 - Base skull to top shoulders: tenderness / rigidity / deformity
 - Windpipe central – not forced to one side

Shoulders

- Feel for tenderness & deformity
- Compare sides



Chest



Check entire chest for tenderness & deformity

Press down on chest bone

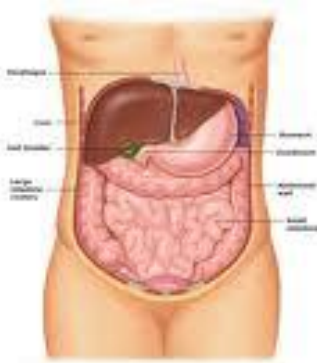
Check ribs

press down from top & in from sides

ask patient to take a deep breath & examine area that hurts

Check both sides rise & fall evenly

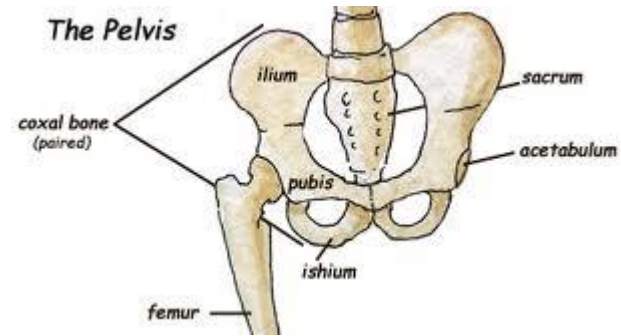
Abdomen



- Divide into quarters & check each quarter
- Soft (i.e. normal) / tender / rigid?
- Look for discolouration / bruising & distension

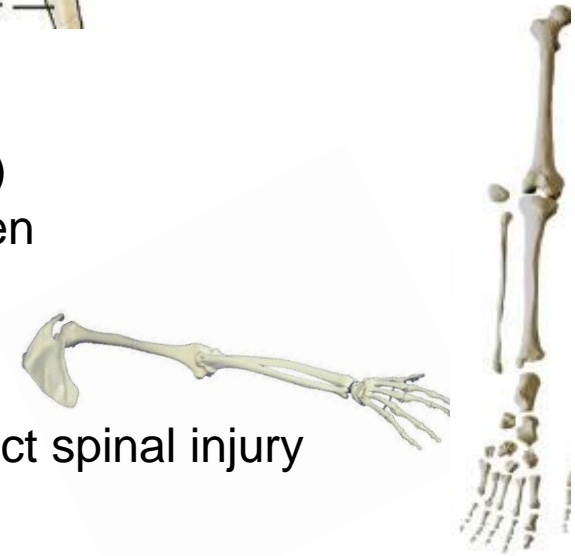
Pelvis

- Check for deformity
- Press front & sides of pelvic bone
- Passed urine (blood?)



Arms / Legs

- Swelling / deformity / discolouration
- Gentle, firm pressure (try to “bend” bone)
- Check circulation in limb if appears broken
- Ask conscious patient to:
 - move limbs through normal motion
 - Push / pull / rotate / flex
- Feeling/movement of hands/feet – suspect spinal injury



Back

- Check spine & ribs for tenderness
- Feel backbone from shoulder to pelvis, without moving spine
- Cause of accident may indicate if spinal injury should be suspected

Secondary Survey – gather information

Ask the patient if conscious, their companions if unconscious
You can do this while examining patient.

- **S**igns & symptoms
 - you see signs (top to toe), patient tells you symptoms
- **A**llergies
 - Do you have any allergies? What happens to you?
- **M**edication
 - Are you taking any medication? What is it? Why do you take it? When did you last take it? How much did you take? Have you omitted to take it?
- **P**ast medical history
 - Has this happened before? What happened last time?
- **L**ast oral intake
 - When did you last eat / drink? What did you eat / drink?
- **E**vents immediately prior
 - What were you doing immediately before? Did you do anything in particular?

Secondary Survey – gather information

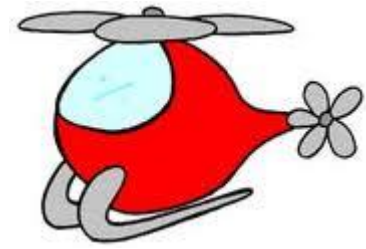
- **O**nset
 - When did the pain start? What were you doing?
- **P**revents / provokes
 - What makes it worse? Does anything make it better?
- **Q**uality
 - Can you describe the pain? Is it dull, sharp, stabbing, burning, etc?
- **R**adiate / Region
 - Where does it hurt? Does it hurt anywhere else?
- **S**everity
 - On a scale of 1 to 10, with 1 being nothing & 10 being unbearable, how bad is it?
- **T**iming
 - Is it constant? When is it worse? When is it better?

WRAPT

- **W**armth – very important when outdoors!
 - Keep insulated from ground
 - Hat on head, cover neck
 - Cover patient
- **R**eassurance
 - Keep patient reassured - tell them what is happening.
 - Do not lie.
- **A**ssess again
 - Reassess constantly.
 - Record vitals periodically (pulse, respiration, temp., etc)
- **P**osition
 - Position appropriately
- **T**reatment
 - Treat appropriately



Evacuation / Aborting trip



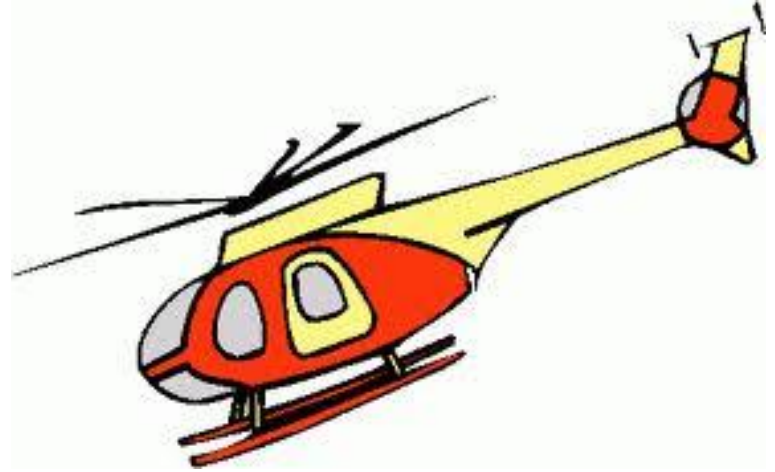
- Is injury life threatening?
 - Get help ASAP: PLB, radio, phone, send others
- Is patient able to walk out?
 - Patient may be very slow – do you have time / resources (torches, food, warm clothing)?
 - Could some of party go ahead?
- Can you carry them out?
 - Carrying a patient,
1 hour's walk = 6 hours
 - Stretcher: 18-24 people working in teams of 6
 - High likelihood of injury to other party members
- Do you need to request help to evacuate patient?
 - PLB, Radio, phone, send other party members



When to set off a PLB...

If the injury is life threatening

time is of the essence – get help ASAP
e.g. Severe bleed / CPR been administered



Will they need a helicopter to get out?



i.e. can they walk out? If not and you are not very close to a road or track that vehicle can travel down then you are going to need a helicopter

Evacuation: when you need help

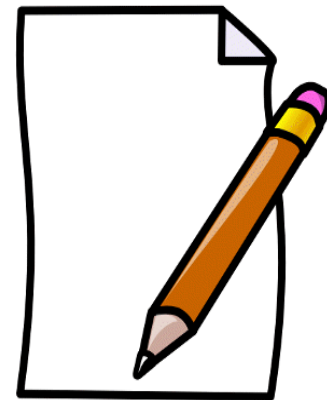
Mountain radio / mobile phone:

- State number of casualties, severity & urgency
 - I have 1 patient with broken thigh. She is currently conscious & breathing unaided. She has **major blood loss & severe shock**. I require **immediate** help if she is to survive.
- Map series & number & grid reference
 - Using TOPO50 map CJ01 we are at grid reference 236142
- Description of location
 - We are at the bottom of the bluff on the west of Mt Big, approximately 300 meters down from the summit.
- Ask to have the message repeated back to you

Evacuation: when you need help

Sending for help:

- If possible, send 2 people
- Sufficient water, food & gear for own safety
- Take a *written* message:
 - What has happened, what assistance needed, level of urgency
 - Condition of patient when left
 - Treatment administered
 - Location (marked on map, if possible)
 - Names & addresses of group members
 - Known medical conditions of group members
 - Physical & mental condition of group members
 - Resources of group: clothing, food, shelter, fuel, gear



Part 2: to be continued

- How to treat:
 - Head injuries
 - Fractures & dislocations
 - Soft tissue injuries
 - Burns
 - Wounds
 - Environmental conditions
 - Existing medical conditions
 - Poison, stings & bites