

First Aid Notes

PGS

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Shock

Any medical condition or injury can lead to shock. Shock is brought on by low circulating blood volume. Patient will have lowered blood pressure.

Signs and symptoms

- *Initial signs*
 - pale face, lips or fingernails
 - feeling faint or dizzy
 - cool, moist, sweaty skin
 - nausea
 - anxiety
- *Severe shock:*
 - feeling agitated
 - feeling thirsty
 - weak, rapid pulse
 - shallow, fast breathing
 - capillary refill more than 2 sec
 - blue face, earlobes, lips or fingernails (patient is very sick!)
 - decreasing level of consciousness

Treatment

- DRSABCD
- Help the patient lie down. Do not raise their legs.
- Reassure them.
- Manage severe bleeding, if any, then other injuries.
- Loosen tight clothing.
- Keep them warm using a blanket.
- Give them small amounts of cool water (if they're conscious, don't have abdominal injuries and won't need an operation soon).
- If they have difficulty breathing, put them in the recovery position.

Heat-induced illness

The aim is to cool down and rehydrate the patient.

If they don't improve within 10 minutes, call an ambulance.

Signs and symptoms

- patient is hot, breathless and sweaty (or dry - worse!)
- they can't continue their activity - they feel too weak
- high body temperature
- feeling faint or dizzy
- nausea, vomiting or diarrhoea
- pale skin and signs of shock setting in
- weak, rapid pulse
- feeling unsteady on their feet
- decreasing level of consciousness

Treatment

- Help patient to lie down in a cool, shaded area.
- Remove as much of their clothing as possible.
- Soak them with water.
- Apply ice packs to neck, armpits, groin.
- Fan them continuously.
- Keep spraying them with water or wiping them with a wet cloth.

Swelling and cramps

Hot conditions may result in the body becoming temporarily overheated. This can lead to heat-induced swelling of hands or feet.

Losing too much water and salt through sweating can cause heat cramps, especially in the legs and abdomen.

Treatment

Swelling

- Raise the affected limb.
- Get the patient to exercise it.
- Keep them cool.

Cramps

- Get the patient to stop and rest.
- Gently stretch the muscle that's affected.
- Massage the muscle if it helps reduce pain.
- Apply a cold pack.
- Get the patient to drink some water.

Wounds and Dressings

Wound types

Type	Description	Cause
Bruise	Visible discolouration on skin, with pain and swelling	Blow from something blunt
Incision or cut	Straight cut with edges that come together	Sharp object
Laceration	Wound with ragged edge, edges may not come together	Sharp, possibly jagged objects
Graze	Superficial scraping of skin, may have dirt in it	Scraping across a hard surface
Abrasion	Superficial or deep (possibly with pits) scraping of skin, may have dirt in it	Scraping across a hard surface
Skin tear	Wound with ragged edge	Severe force or thin, fragile skin

Dressings

Dressings can

- absorb blood and other fluids

- keep a wound clean
- help protect a wound from infection
- protect a wound from bumps and scrapes
- reduce pain

What dressings to use

Dry dressings

- cuts and lacerations
- closed blisters (with no skin loss)
- punctures

Moist (non-adherent) dressings

- grazes and abrasions
- open blisters (with skin loss)
- skin tears
- burns

Adhesive dressings

- minor wounds

Combine dressing

- large or deep wounds

Alcohol and drugs

Users' own reports about their drug use are unreliable!

Record what they say, treat what you find!

Broad groups

Substances that slow patients down - depressants

Signs and symptoms

- reduced pulse rate
- reduced blood pressure
- reduced level of consciousness
- usually also reduced respiration rate and respiration volume
- this general reduction in vital signs leads to reduced movement, resulting in *reduced temperature*

Treatment

- Maintain the patient's airway and ventilation (usually with a bag valve mask (BVM) resuscitator - picture below).



Examples

- alcohol
- cannabis
- barbiturates (and other sleeping tablets)
- benzodiazepines (and other tranquilisers)
- narcotics (e.g. heroin)
- volatile substances (e.g. petrol, thinners)

Alcohol - snippets

- Being drunk slows down the brain's ability to trigger a gag reflex, which prevents choking, so a drunk person may inhale vomit into their lungs.
- Keep them as upright as possible - never lay them down. If they can't sit up, put them into the recovery position.
- Alcohol is a diuretic. It also causes the stomach to produce more acid than usual, which may cause stomach ache, diarrhoea or vomiting. Give them an open bottle of water so they can *sip* when they want or rinse out their mouth - don't give them acidic drinks like fruit juice.
- Alcohol can cause a drop in body temperature, so keep them warm if they're cold.
- Don't leave them alone - particularly if they're vomiting. Monitor them.

Substances that speed people up - stimulants

Signs and symptoms

- increased pulse rate
- increased blood pressure
- increased level of consciousness
- usually also increased respiratory rate and respiratory volume
- this general increase in vital signs leads to increased movement, resulting in *increased temperature*
- sweating
- confusion and inability to answer simple questions

Treatment

- Reduce stimuli affecting the patient (i.e. move them away from loud music to a quiet place with no bright lights) to help *bring their temperature down* into the normal range (reducing stimuli and agitation is always the most effective way to reduce temperature).
- To reduce temperature, you may also need to
 - give them small amounts of water - give them an open bottle and say, "Sip when you need to"
 - remove clothing
 - keep the environment cool
- Stay with them - don't leave them alone - and monitor them.

Examples

- amphetamines
- cocaine
- ecstasy (i.e. MDMA or methylenedioxymethamphetamine - similar structure to methamphetamine (speed))

Notes

- The effect of stimulants is similar to a state of fright. Blood is moved to the muscles to prepare for running away, pupils dilate so the person can see better. Maintaining this state of fright requires energy - the body uses up available energy stores (glucose) and *body temperature increases*.
- MDMA affects how the body regulates temperature and the body may not respond to warning signals from the brain about it overheating, so the person may not realise their body temperature is becoming too high.

Heart conditions

First, some terminology ...

Angina (or ischaemic chest pain)

- temporary pain or discomfort in the chest usually brought on by exercise or emotional stress because the coronary arteries are too narrow to supply the extra oxygenated blood required by the increased stress

Chronic heart failure

- an ongoing condition, where the heart muscle is weak and cannot pump normally, often because of age, chronic heart disease or a previous heart attack

Heart attack

- occurs when there's a blockage in an artery supplying blood to some part of the heart, preventing blood from reaching the heart muscle beyond the blockage and leading to damage to the heart muscle
- symptoms can appear suddenly but more often start slowly and persist for hours, days or weeks
- the heart usually keeps pumping during a heart attack
- heart attack *can* bring on cardiac arrest

Cardiac arrest

- an electrical malfunction of the heart that causes it to pump irregularly or not at all
- when pumping is disrupted, the heart cannot supply blood to the brain, lungs or other organs and the patient loses consciousness and has no pulse
- there is often no warning or symptoms before the patient collapses

Note the difference between heart attack and cardiac arrest.

Angina

- angina is usually relieved by rest and angina medication
- most patients with angina are aware of it and have angina medication

Signs and symptoms

- discomfort or tight or squeezing pain in the chest (usually in the centre)
- pain may be mild to severe
- pain may spread from chest to jaw, neck, back, one or both shoulders, arms or hands **or** be in any of those other places rather than in the chest
- shortness of breath

If the patient has the above symptoms and they aren't relieved by angina medication, treat the patient as for a heart attack.

Chronic heart failure

Signs and symptoms

- general tiredness
- breathlessness when exercising or lying down
- coughing and wheezing
- swollen feet, ankles, legs and abdomen

Heart attack

- Warning signs and symptoms vary
- Symptoms can start suddenly or develop gradually
- People can have one or a combination of symptoms

Signs and symptoms

- discomfort or pain in the centre of the chest
 - this may start suddenly or build up slowly over several minutes
 - the quality might be tightness, heaviness or squeezing
 - it might be mild to severe
 - it could spread to the jaw, throat, neck, back and one or both shoulders, arms and hands

Atypical signs and symptoms

- pain might not be tight or squeezing
- patient may also
 - be short of breath
 - have choking feeling in throat
 - feel nauseous
 - feel dizzy
 - have a cold sweat

- women may have minimal symptoms (40 % of women have no chest pain), as may elderly people or diabetics
- these minimal symptoms may only be
 - shortness of breath
 - jaw or arm pain
 - nausea

Cardiac arrest

Oxygen

Masks

There's a good video (with transcript) on masks in my "first aid resources" folder.

Note on terminology *Oxygenation* - putting an oxygen mask on someone's face. *Ventilation* is taking or moving air into the lungs, which then move upwards and outwards, and then the body using oxygen and excreting carbon dioxide.

Glossary

COPD - chronic obstructive pulmonary disease (chronic inflammatory lung disease that inflames and narrows the airways; usually caused by long-term exposure to dust or cigarette smoke; also called emphysema or chronic bronchitis)