The Basics of First Aid #14

Treating Heat Related Disorders and Dehydration

The human body is extremely sensitive to changes in temperature and even minor changes can adversely affect it. A rise of less than 7^{o}F above normal body temperature can result in death. The body normally handles heat by sweating to cool the body off. It is therefore critical to make sure that the body remains hydrated, especially in areas of elevated temperature and extreme activity.

Heat related disorders include heat rash, heat syncope, heat cramps, heat exhaustion, heat stress, heat stroke and dehydration.

Dealing with heat rash

– Heat rash is usually due to moist clothing remaining in contact with the skin. Even once the skin has been cleaned and dried, the rash may persist for up to 3 weeks afterwards. To avoid heat rash try to wear moisture wicking clothing that pulls the moisture away from the skin. No special treatment is necessary for heat rash. It will eventually clear up on its' own.

Dealing with heat syncope

– Heat syncope is generally not very serious. It is a dizziness that comes from overheating while sitting in the sun. Simply move the person to a shaded area and cool them down and the problem should go away. Give them plenty of liquids a little at a time to make sure that they aren't getting dehydrated.

Dealing with heat cramps

– Heat cramps are caused by dehydration. When the muscles are low in sodium and fluids they may cramp up or spasm. Rehydration will usually remedy the problem (see below).

Dealing with dehydration

- First it must be noted that it is much simpler to make sure that the body stays hydrated than it is to try to rehydrate a body that has become dehydrated. Drinking plenty of liquids (avoid caffeinated or alcoholic beverages) is key to keeping the body hydrated. Symptoms of dehydration may include fatigue, cramping, dizziness, confusion, extreme thirst, headaches, fainting, and convulsions. To help a victim of dehydration give them small doses of liquids are a great way to rehydrate because they replace the needed electrolytes as well as the liquids) at regular intervals; too much too fast could cause the person to vomit and actually lose even more liquids, so give small doses a little at a time. Move the person to a cooler location. The urine of a well hydrated person will run clearish (as opposed to dark yellow).

Dealing with heat exhaustion or heat stress

- When dehydration continues, the lack of fluids in the body can cause the constriction of the blood vessels which will may result in lightheadedness, dizziness, exhaustion, cramping, fatigue, increased respiration, etc... Rehydration should remedy the problem. If left untreated, however, it could potentially lead to heat stroke which can be fatal (see below)

Dealing with heat stroke

– As we have already mentioned, heat stroke can be fatal. If the body temperature gets too elevated the brain can overheat. Death can result in as little as 30 minutes so it is imperative to get them help immediately.

Heat stroke can be:

1. Slow (fluid depleted heat stroke) which comes about when dehydration is ignored. Eventually, the lack of fluids in the body causes the body to overheat, leading to heat stroke.
2. Fast (fluid intact) which comes about, not as a result of fluid depletion but as a result of extreme heat when the body isn't able to cool itself down adequately or fast enough.

In either case, heat stroke symptoms may include any of the following symptoms:

- Flushed or hot skin
- Hallucinations
- Dizziness
- Disorientation
- Seizures
- Unusual behavior
- Heavy breathing

The most important step, in treating someone with heat stroke, is to lower the body temperature. Move the person to a cooler area and remove all non-breathable clothing. Pour cool water (not too cold or the body could potentially go into shock) on wrists, neck and ankles. Fan them to speed up sweat evaporation. If ice packs are available, put them at the neck (the main artery at the neck will drive the cooled blood to the rest of the body faster). Monitor the patient's temperature. When their body temperature falls below 102^{o} stop cooling them and start to give them small sips of liquid (see rehydration procedures above).

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