

Preventing Heat Illness

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Health Promotion

Lafene Health Center

Session Outline

- Hydration
- Perspiration (a.k.a. Sweat)
- Dehydration
- Heat Illness
 - Cramps
 - Exhaustion
 - Stroke
- Treatment of Illness
- Prevention Tips

Hydration

- Consuming adequate amounts of fluids
 - adults 8-12 ozs. every hour during active periods.
- Water or sports drinks replace fluids lost through perspiration.
- Drink more than you think you will need.
- Cool drinks tend to be more palatable, may be easier to drink ↑'d volume.
- Urine check:
 - Normal volume and pale yellow.
 - Normal frequency - at least once every four hours.

Sweat

The Importance of SWEAT

 Normal body function.

 Salt = sweat leftovers.

 Sweat facts:

 2 - 4 million sweat glands (100 grams).

 Highest concentration - bottom of feet.

 Lowest concentration - back.







 Women have more sweat glands than men.

 Male sweat glands are more active.

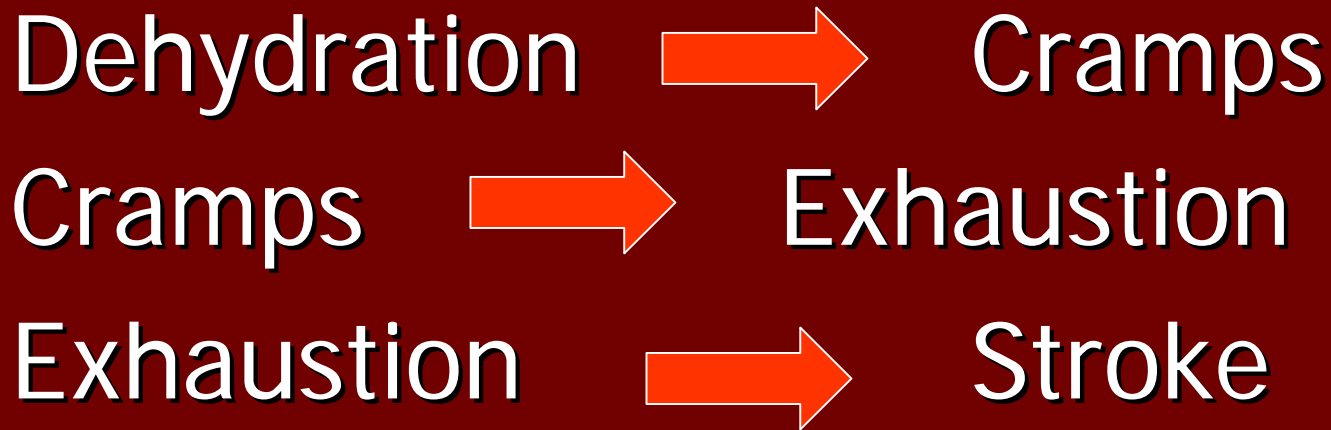
 Men can become dehydrated more quickly.

Sweat = Perspiration

The SWEAT Process.

-  Evaporation causes cooling of the skin.
-  Blood is diverted to the skin surface.
-  Circulating blood volume is reduced.
-  Water and electrolytes (salts) are lost.
-  Above 95° F the body relies on sweating to control internal body temperature.
-  High humidity "gums up" the sweating cooling system (sweat evaporation is affected).

Heat Illness



Dehydration

- ☞ Dehydration - loss exceeds replacement.
- ☞ Thirst is not a reliable indicator of dehydration.
- ☞ Evaporation cannot occur in high humidity.
- ☞ Normal body cooling prevented → body temperature increases.
- ☞ Decreased blood to the brain → pass out.

Dehydration

Symptoms

- Dry Mouth
- Thirst
- Irritability
- Headache
- Seeming bored or Disinterested
- Dizziness
- Cramps
- Excessive Fatigue

Dehydration - Treatment

- Move to shaded or air conditioned area.
- Give fluids to drink.
- Watch for further signs of continuing dehydration.

Muscle Cramps - Treatment

- Occurs in voluntary muscles (i.e. legs).
- Stop exercising/activity.
- Get out of the sun/heat.
- Massage extremity.
- Drink water or sports drink.



Heat Exhaustion

- Caused by fluid loss.
- Blood supply is sent to the skin.
- Reduces blood to the brain.
- Confusion and/or unconsciousness.
- Wet skin – perspiration present.

Heat Exhaustion - Treatment

- Stop activity.
- Get out of heat (not in the sun).
- Lie down.
- Raise your feet.
- COOL OFF!!!! (AC)



Get fluids ASAP!

Heat Stroke

- LIFE THREATENING!
- Body temperature increases.
- Skin is usually hot and dry (no sweat).
- Symptoms:
 - Dizziness
 - Vomiting
 - Diarrhea
 - Confusion

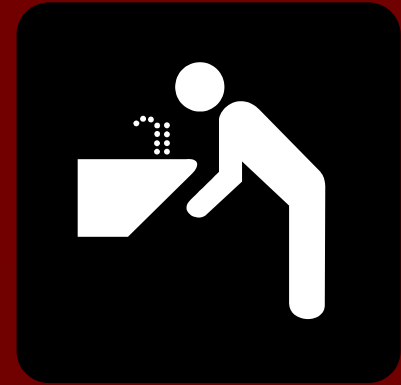
Heat Stroke - Treatment

- Get immediate medical attention.
- Call "911."
- Reduce body temperature with cool water.
- Get in tub of cold water.
- Drink cool liquids if person is conscious.

Call 911



Prevention Tips



- Listen to your body.
- Wear loose-fitting clothing.
- Stop activity when you start to feel overheated.
- Avoid overheating -- pour water over your head.
- Get out of the heat -- avoid hot places.
- Drink plenty of fluids:
 - Before, during and after entering heat facility
 - Schedule water breaks to drink at least 8 ozs. of water/hour.
 - Avoid caffeine and alcohol which add to dehydration.
- Obese and/or older adults at > risk.

Prevention Tips (cont.)

- Medications, prescription and over-the-counter, may interfere with you body's ability to regulate temperature.
 - Gastrointestinal drugs containing atropine (Donnatal); antidepressants or antipsychotics (Thorazine, Haldol, Prozac);
 - Antihistamines (Benadryl);
 - Certain cardiovascular medications including betablockers (Blocadren) and diuretics (Diuril);
 - Parkinson's disease medications.
- If you use any of these medications, be especially careful to limit your exertion and drink plenty of water during hot, humid weather.

Wallet Card

- Place this card in your wallet so that you have it handy should you need to refer to it.
- Look out for each other, if your neighbor is becoming confused or acting “funny,” get him to a cool area and HYDRATE!
- Sources:
 - The Merck Manual, 16th Edition, R. Berkow, M.D., Editor, 1992.
 - University of Michigan Health System (web resource)
<http://www.med.umich.edu/1libr/primry/life18.htm>
 - drkoop.com (web resource)
<http://www.drkoop.com/template.asp?page=newsdetail&ap=93&id=510008>