

HEAT RELATED ILLNESS

The brain regulates body temperature



If it is too hot, the body needs to get rid of heat. How does it do this?

- By dilating blood vessels
- By sweating

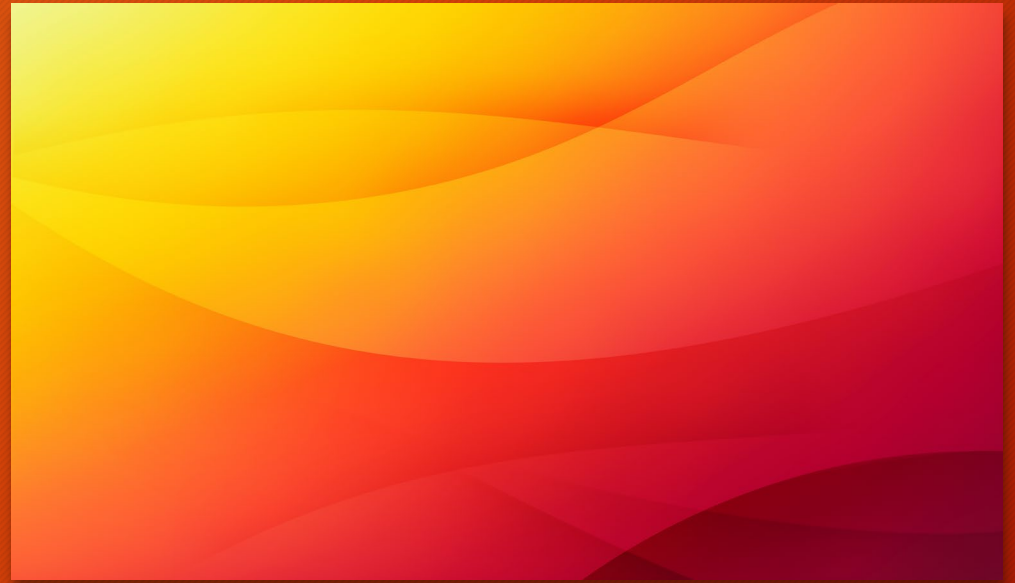
Body temperature:

Dilated blood vessels:

- Help heat escape
- But can cause ankle swelling because fluid leaves the blood vessel and goes into the tissue.

Sweating:

- Cools the body through evaporation
- Causes loss of body water which can lead to dehydration.



Ability to lose heat is altered by:

- Aging - less sweating
- Obesity - fat insulates the body
- Alcohol – interferes with brain activity
- Medications – can affect brain activity
plus have other effects



Heat Rash

Sunburn

Heat Cramps

Heat Exhaustion

Heat Syncope

Heat Stroke

Problems caused by too much sun include:

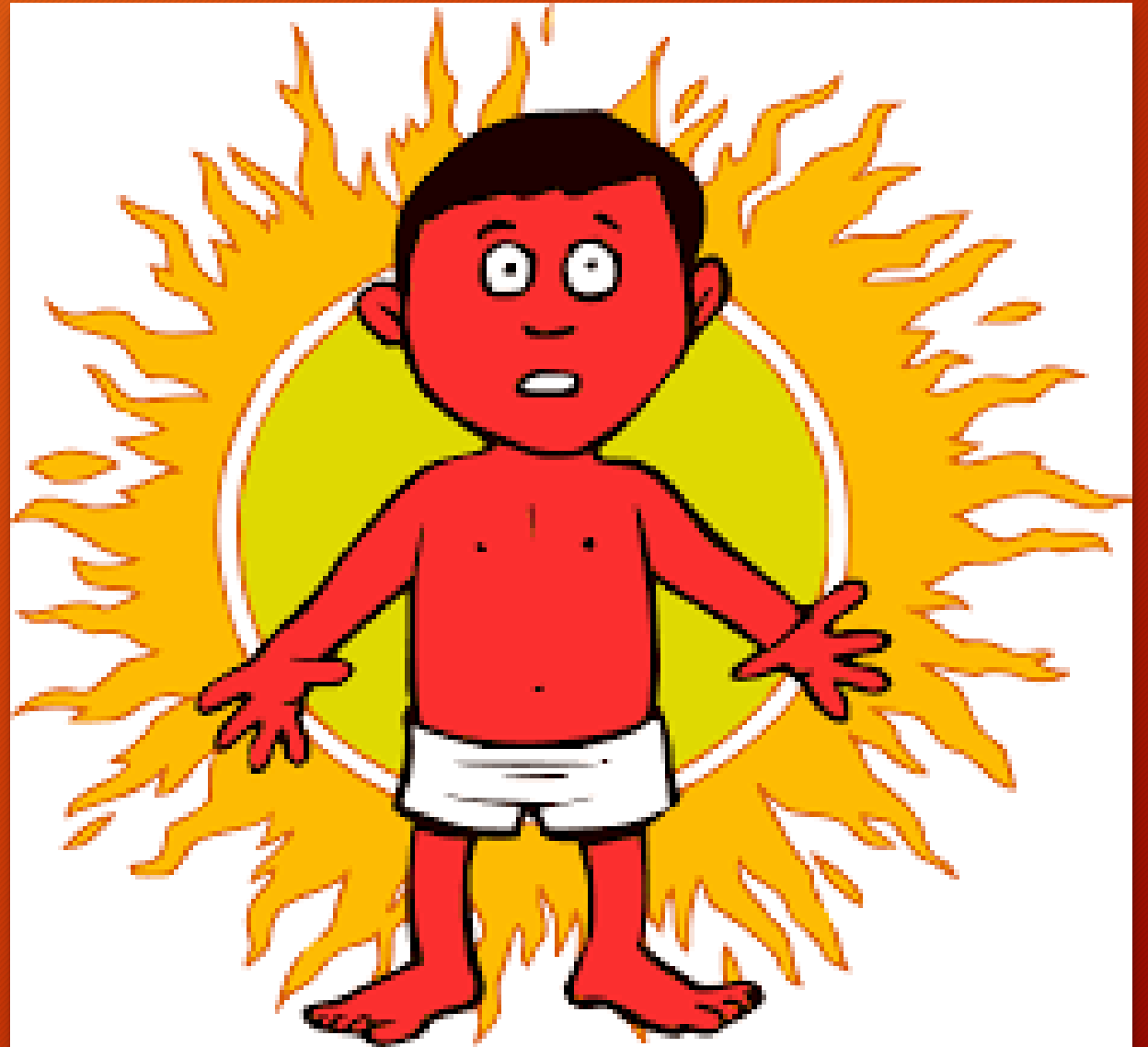
Heat Rash



- Caused by a hot, humid environment and plugged sweat glands
- Appears as tiny raised, red bumps with extreme itching
- Treatment: rinse skin with cool water, use mild lotions, and change into dry clothing
- Prevention: wash regularly, keep skin clean and dry

Sunburn

- Caused by too much exposure to the sun
- Presents as red, painful, blistering, or peeling skin





- Treatment: cool the skin, apply cooling gels or lotions such as aloe, Noxzema, Solarcaine, etc.
- Drink extra water
- Seek medical attention if severe blistering
- Prevention:
 - apply sunscreens of factor 15 or greater
 - wear light clothing
 - limit exposure to the sun

Sunburn – treat and prevent

Heat Cramps—what & why?

- Heat cramps result from heavy sweating which causes loss of salt along with water. Lack of salt (electrolytes) can cause cramping of muscles.
- The painful cramps that usually occur in the arms, legs, and stomach start suddenly and can be a warning of more dangerous heat illnesses.





If these occur:

- move to a cool area
- loosen clothing
- consume drinks that contain salt such as Gatorade

To prevent:

- drink fluids regularly
- reduce activity levels in the heat

Heat Cramps

Heat syncope is fainting due to heat.

It is caused by the pooling of blood in dilated blood vessels and lack of adequate fluid intake.



Heat Syncope

Fainting due to heat

Fainting (syncope) occurs suddenly

Treatment is aimed at cooling the person:

- Move to a cooler area
- Loosen clothing
- Offer sips of cold water when safe to drink

Prevention:

- Drink fluids regularly
- Reduce activity levels during the hotter parts of the day
- Avoid extreme heat

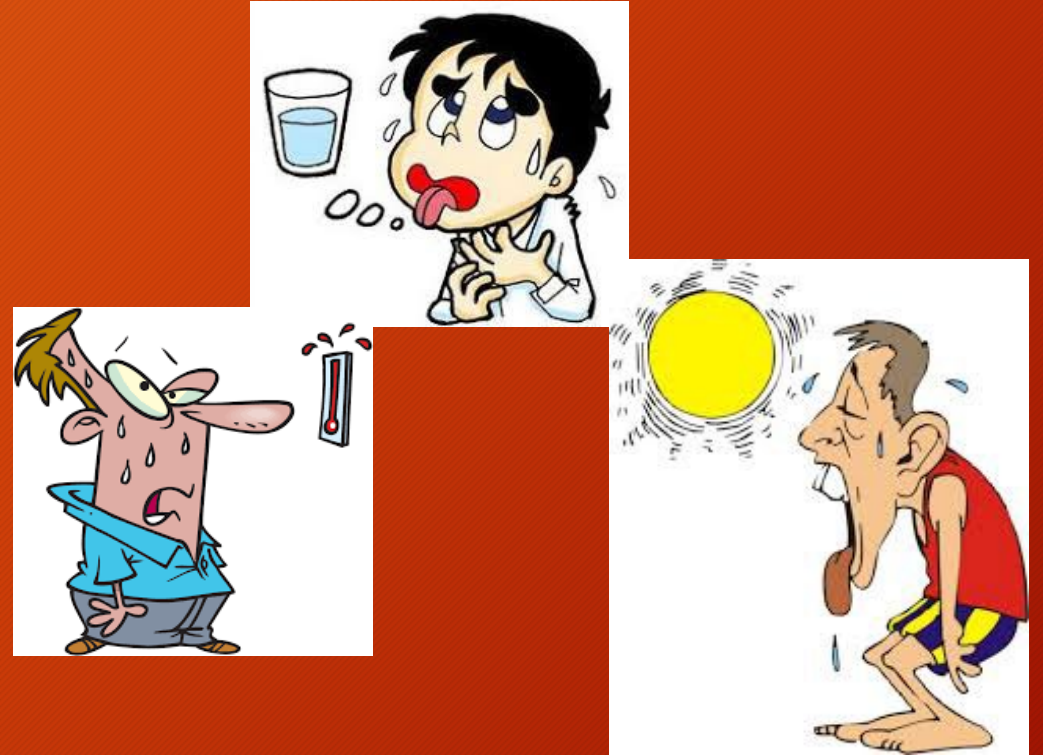


Heat exhaustion is caused by the breakdown of the body's cooling system due to loss of fluid from sweating without adequate fluid and salt replacement.



Heat Exhaustion

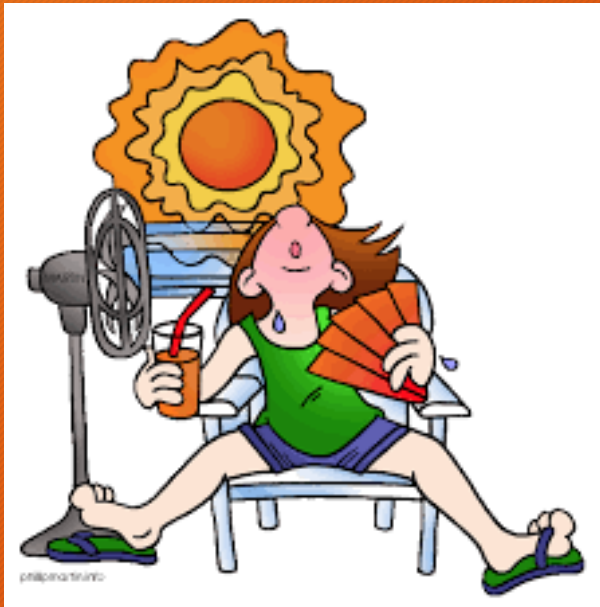
Thirst
Heavy sweating
Moist, clammy skin
Low blood pressure
Weak pulse
Fatigue, weakness
Panting, breathing fast
Dilated pupils, blurred vision



Heat Exhaustion Symptoms

Treatment of Heat Exhaustion

Get medical assistance – it can progress to heat stroke and death



- Move to a cool, shaded area
- Loosen or remove excess clothing
- Provide cool water
- Fan and lightly spray with cool water

Heat Stroke

A Medical Emergency



Heat stroke can suddenly develop when fluid and salt reserves are used up causing the body to lose the ability to sweat. The body temperature then rises dangerously high.

Cause of Heat Stroke



Heat Stroke Symptoms



Skin: hot, dry, red, mottled

Skin may be blue from lack of oxygen

Temperature over 104°F

More Symptoms

Fast pulse

Headache

Weakness

Dizziness

Confusion

Seizure

Agitation

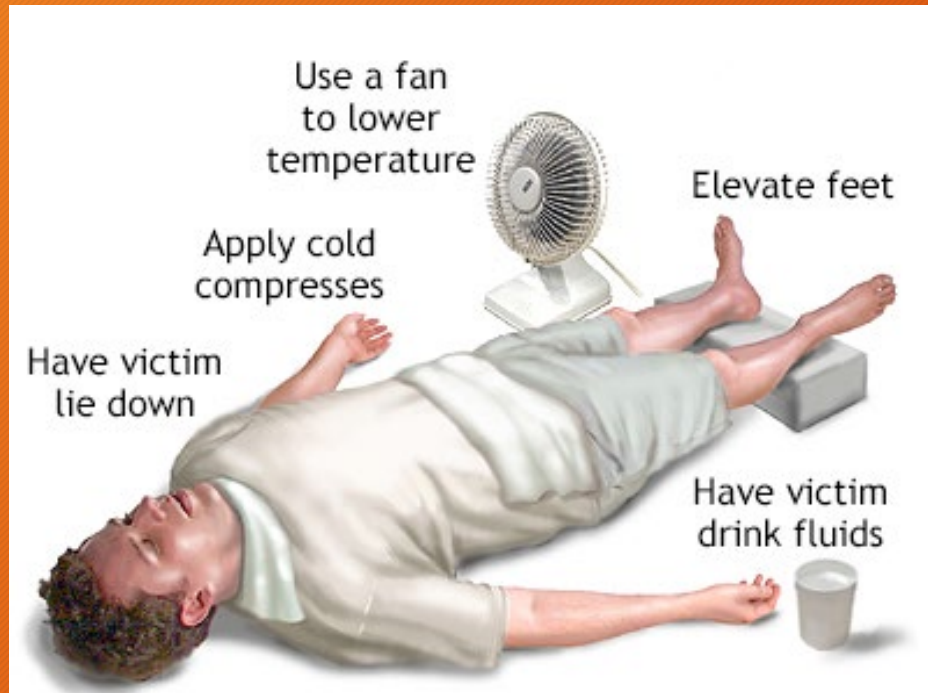
Loss of consciousness



Call 911

Death can occur quickly
from a **HEAT STROKE!**





Move to a cool spot
Elevate the feet
Remove excess clothing
Apply cool, wet cloths
Cool with fan or spray with cool water
Offer water if able to safely drink

Treatment of Heat Stroke

Prevention

- Reduce activity levels and heat exposure
- Wear light clothing and broad brimmed hats
- Drink fluids regularly, avoid alcohol
- Eat light meals
- Check for signs of problems developing

