

DEHYDRATION

- * Dehydration occurs when the body loses too much water.
- * Death from dehydration can occur in 3 days or less.

DEHYDRATION

Our body is made up of 2/3 water.

Water forms the basis for

- * Blood
- * Digestive juices
- * All body fluids

WATER

Water is lost daily through

- * Lungs – water vapor
- * Skin – sweat
- * Tears
- * Urine
- * Stool



LOSS OF WATER

* **10 cups of water is lost in an average day.**



LOSS OF WATER

*Lack of access

*Illness

*Medications

*Activities and environment



CAUSES OF EXCESS WATER LOSS

Lack of access

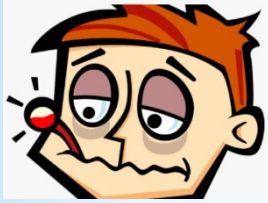
*Some people are unable to get a drink when wanted or even communicate thirst.



*During travel, access may be limited.

CAUSES OF EXCESS WATER LOSS

Illness



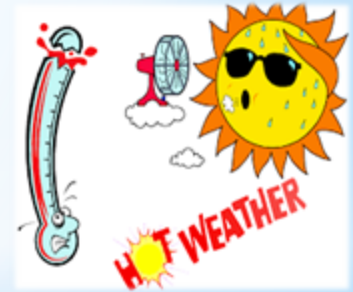
- * Vomiting and diarrhea
- * Fever
- * Increased urination from an infection
- * Lung or kidney disease
- * Burns (water is lost through damaged skin)



**CAUSES OF EXCESS
WATER LOSS**

Activities and environment

- * Excessive sweating
- * Rapid breathing during exercise
- * Inadequate water consumption
- * Diets using laxatives and diuretics to lose water weight
- * Hot, dry, windy days



**CAUSES OF EXCESS
WATER LOSS**

Medications

- * Diuretics (used to treat high blood pressure and heart failure)
- * Antihistamines
- * NSAIDs such as ibuprofen
- * Some psychiatric medications (lithium, antipsychotics, Depakote)



**CAUSES OF EXCESS
WATER LOSS**

Older age

- * Less ability to conserve water
- * Less able to feel thirst
- * Poor response to change in temperature



RISKS FOR DEHYDRATION

Chronic illness

- * Poorly controlled diabetes
- * Kidney disease
- * Alcoholism



RISKS FOR DEHYDRATION

Athletes

- * Endurance athletes are especially at risk.
- * Longer exercise = more water loss
- * Exercising a lot over many days can lead to dehydration.



RISKS FOR DEHYDRATION

High altitudes



- * Especially over 8,000 feet
- * At high altitudes, the body attempts to adjust with rapid breathing and increased urination.

RISKS FOR DEHYDRATION

Mild dehydration

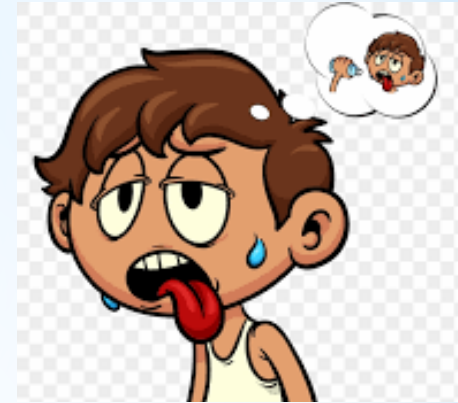
- * Thirst
- * Dry lips
- * Slightly dry mouth



SYMPTOMS

Moderate dehydration

- * Dry sticky mouth
- * Thirst
- * Sleepiness, tiredness
- * Less frequent urination
- * Lack of tears with crying
- * Headache



SYMPTOMS

Moderate dehydration

- * Muscle weakness and cramps
- * Dizziness or lightheadedness
- * Sunken eyes
- * Skin that lacks elasticity (doesn't bounce back when pinched in a fold)



SYMPTOMS

Severe dehydration

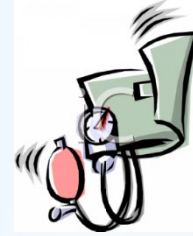
- * Extreme thirst
- * Irritability, confusion
- * Little or no urination
- * Urine is dark in color
- * Lack of sweating



SYMPTOMS

Severe dehydration

- * Low blood pressure
- * Fast heart rate and breathing
- * Cold hands, blue lips
- * Fever



SYMPTOMS

In very severe cases

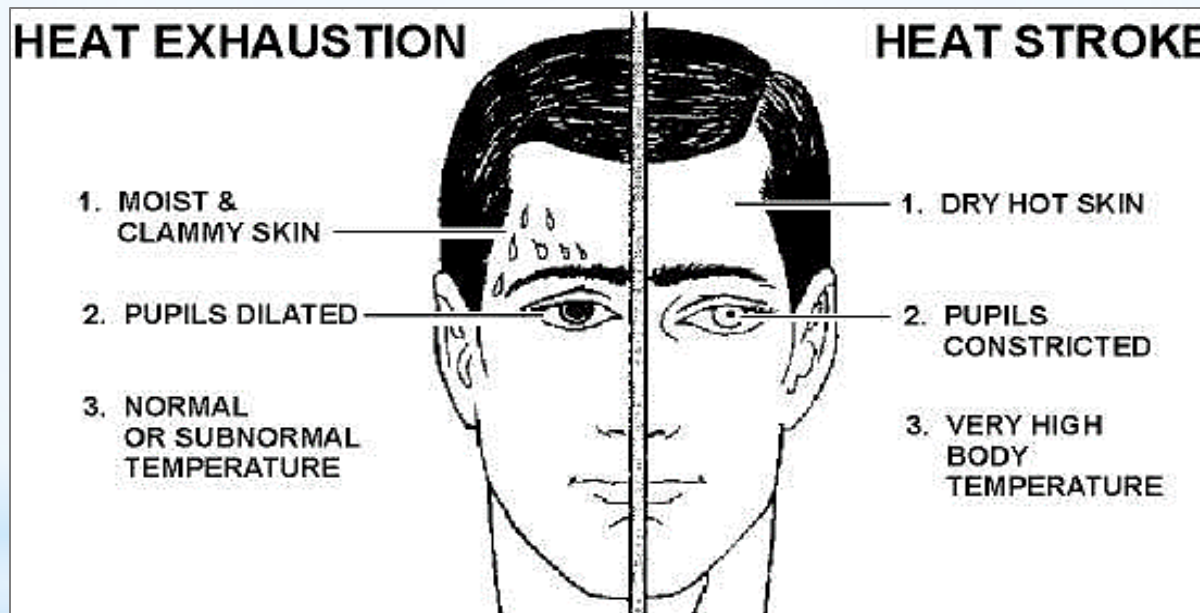
- * Delirium
- * Loss of consciousness
- * Coma



SYMPTOMS

Heat injury

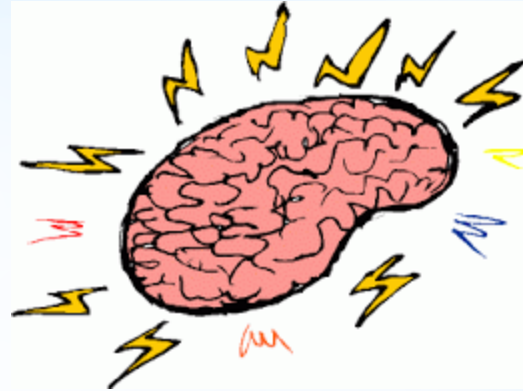
- * Heat cramps
- * Heat exhaustion --- Heat stroke



COMPLICATIONS

Heat stroke

- * Brain swelling
- * Seizures
- * Shock
- * Kidney failure



COMPLICATIONS

The recommended daily fluid intake per US Academies of Sciences, Engineering, and Medicine is:

- * About 15.5 cups (3.7 liters) of fluids a day for men.
- * About 11.5 cups (2.7 liters) of fluids a day for women.
- * These recommendations are for those who have normal and regular physical activity.

RECOMMENDATIONS

Another way to determine how much fluid someone should consume in one day is to divide the body weight (in pounds) by 50 which equals the quarts of fluid needed each day.

These recommendations cover fluids from water, other beverages, and food.

- * About 20% of daily fluid intake comes from food.

RECOMMENDATIONS

- * Consume adequate fluids and foods that contain a lot of water (fruits and vegetables).
- * Drink extra fluids during hot weather or when ill.



PREVENTION

* Hydrate extra the day before strenuous exercise, during exercise, and after exercise.



* Schedule physical exercise during cooler parts of the day.

PREVENTION