FIRST AID – HEAT CASUALTIES

Soon ROTC cadets will be having their first community service and Fund raising event of the semester – State Fair Parking. Unfortunately, this event occurs during the hottest days of the summer. While we are directing cars during State Fair parking, the temperatures are routinely in the 90’s with heat index readings in the low 100’s!

During this period of instruction, we are going to learn about various heat causalities and how to prevent and treat them.

There are two types of sweating –

1. **Nervous** -
   A) Mr. Pollio wants to see you – NOW!
   B) Your First Uniform Inspection: Tuesday
   C) You are going to be SgtMaj’s dummy!
   D) The Col’s Military Ball dance class is tomorrow and you are going to be his partner!

Any others?

These are all examples of “Nervous Sweating”

2. **Cooling** -
   A) You’ve been exercising – you’re hot
   B) It is hot outside – real hot!

*Cooling Sweating* is an attempt by your body to cool down because your body has become overheated! This occurs when your body becomes overheated due to exertion, exercise or an increase in external temperature and is the *body’s primary cooling mechanism* when exposed to hot weather.

The only real problem with sweating is that in order for your cooling system to work you must keep your cooling tank full. ONE way to do this is to drink plenty of fluid – preferable **WATER**.

Water consumption can lead to a feeling of being bloated. In the 1970’s, the University of Florida discovered that when we sweat, not only does our body produce fluid to cool us down, it also excretes a mineral – anyone know which mineral?

*SALT*, commonly known as sodium. Hence, they created a fluid replacement drink that not only replaces the water, but also the sodium, or the salt our body looses – this drink is called “Gatorade”! Coaches use this drink to help their football players perform better. Next time you get a bottle of Gatorade, look at the ingredients – water, food coloring, sodium, and flavoring – basically it’s nothing but flavored water and sodium or **salt**!
Gatorade not only replaces fluid – water, but also replaces the salt you lose through sweat – hence Gatorade is a better fluid replacement drink after heavy exercise!

Again, the key ingredient in fluid replacement drinks is sodium or common table salt, so, if you can’t get Gatorade or any “fluid replacement” drink, how would you make your own?

EASY! To every 12 ounce glass of water, just add a pinch of salt.

So, if you know you are going to be outside in high temperatures, one of the best ways to prevent becoming a heat casualty is to drink plenty of fluid replacement drinks!

How can you tell if you are getting enough fluids into your body? Check the color of your urine!

- Clear or light yellow indicates proper hydration.
- Darker yellow = you need fluids
- Deep yellow or light brown – YOU’RE IN SERIOUS DEHYDRATION!

How can you tell if you are taking in enough salt into your system? When your sweaty shirt dries you should see lines of white salt stains!

How many different types of heat casualties are there? THREE

1) HEAT STROKE - the most serious
2) HEAT CRAMPS – the most painful
3) HEAT EXHAUSTION – the most common

What is the easiest way to treat any heat casualty?

Get the person into the shade and cool them off!

HEAT STROKE SYMPTOMS
*This is the most severe casualty

- The body stops sweating and overheats.
- The victim usually has a severe headache.
- The skin is hot, dry (no sweating) and red.
- The victim may feel dizzy or confused.

*Cooling of the victim is CRITICAL. Cool them down quickly and call for medical help (911)
HEAT EXHAUSTION SYMPTOMS
*This is the most common heat casualty.

- The skin is cool, pale, and sweaty or clammy.
- The victim is exhausted, weak and wants to lie down.
- Nausea may occur.

HEAT CRAMP SYMPTOMS
*This is the most painful heat casualty.

- Muscle cramps of the stomach, arms, and/or legs.
- Leg cramps after running and suddenly stopping and sitting or lying down.

*The best way to treat a heat cramp is to massage that area.

**The best way to prevent heat cramps – cool down slowly

HOW DO YOU PROTECT YOURSELF FROM BECOMING A HEAT CASUALTY?

1. Drink plenty of replacement fluids or water beforehand if you know you will be out in hot weather.

2. Wear light weight/light colored clothing.

3. Wear a hat.

4. Apply sunscreen.

5. Try to stay out of direct sunlight.

6. While out in the sun, drink plenty of fluids.

7. Take breaks in the shade.

8. Watch the color of your urine.

9. Watch for symptoms of heat illness in yourself and the people with you.

10. If possible, wet yourself down – especially head and chest area.
HEAT CASUALITIES TERMINOLOGY

A) Heat Exhaustion  
**Symptoms:**  Skin-cool, pale, sweaty. Dizziness/light headed.

B) Heat Stroke  
**Symptoms:**  Skin – hot, dry, red. No sweating! Dizziness/light headed.

C) Heat Cramps  
**Symptoms:**  Cramps in muscles, usually in arms, legs and stomach. Dizziness.

TREATMENT

A) Heat Stroke  
Cool victim immediately! HEATSTROKE can be fatal!

B) Heat Exhaustion  
Cool victim – give water, also increase salt use. May need to take salt tablets.

C) Heat Cramps  
Cool victim – give water.
FIRST AID – HEAT CASUALITIES STUDY GUIDE

Know:

How many types of sweating are there and what are they?

What is the body’s primary cooling mechanism when exposed to hot weather?

Where was the first fluid replacement drink invented (to help football players perform better) and what was this fluid replacement drink called?

What is the key ingredient in fluid replacements drinks commonly known as?

Besides the key ingredient in fluid replacement drinks, what else is added?

How much of the key ingredient would you add to a 12 ounce glass of water to make a good substitute fluid replacement drink?

If you know you are going to be outside and exposed to hot weather what should you do before hand?

How many different types of heat causalities are there and what are they?

Which one is the most serious?

What is the easiest way to treat any heat casualty?

If the skin is hot, dry (no sweating present), and red/flushed, what type of heat casualty is this?

If the skin is cool, pale, and sweaty or clammy, what type of heat casualty is this?

If the person is experiencing cramping of the legs, arms, or stomach, what type of heat casualty is this?

What is one of the many ways to reduce the chance of becoming any type of heat casualty?

What are the symptoms of Heat Stroke, of Heat Exhaustion, and of Heat Cramps?

What is the most serious type of Heat Casualty?

If an individual becomes any type of heat casualty, what should you do immediately?

What else should you do?

What is the easiest way to tell if you are drinking enough fluids?

What color should it be?
FIRST AID – HEAT CASUALTIES TEST

1. How many types of sweating are there?

2. What are they?

3. What is the body’s primary cooling mechanism when exposed to hot weather?

4. If you know you are going to be outside and exposed to hot weather, what should you do before hand?

5. How many different types of heat casualties are there?

6. What are they?

7. Which one is the most serious?

8. What is the easiest way to treat any heat casualty?

9. If the skin is hot, dry (no sweating present), and red/flushed, what type of heat casualty is this?

10. If the skin is cool, pale, and sweaty or clammy, what type of heat casualty is this?

11. If the person is experiencing cramping of the legs, arms or stomach, what type of heat casualty is this?

12. What is one of the many ways to reduce the chance of becoming any type of heat casualty?

13. What are the symptoms of Heat Stroke?

14. What are the symptoms of Heat Exhaustion?

15. What is the most serious type of Heat Casualty?

16. If an individual becomes any type of heat casualty, what should you do immediately?

17. What else should you do?

18. What is the easiest way to tell if you are drinking enough fluids?

19. What color should it be?

20. What is an option for hydrating other than water?