KNOWLEDGE IS POWER

Knowledge Is Power

- Heat Illness
- Hydration
- Weigh in / Weigh Outs
- Injury Protocol for Athletes
- Helmet Fitting
- Equipment Maintenance
- Tackling Techniques
- Proper Usage of Equipment
- Concussion

HEAT ILLNESS

Heat Illness

- Heat Cramps
- Heat Syncope
- Heat Exhaustion
- Heat Stroke

Heat Illness

Heat Cramps

- Muscle Spasms
  - Usually from loss of large amounts of salt and water
  - May also be due to inadequate consumption of electrolytes
  - Can be prevented by proper hydration (prior to day of exertion)

Heat Syncope

- Fainting due to overheating of the body
  - Over heating along with inadequate water or salt

Heat Illness

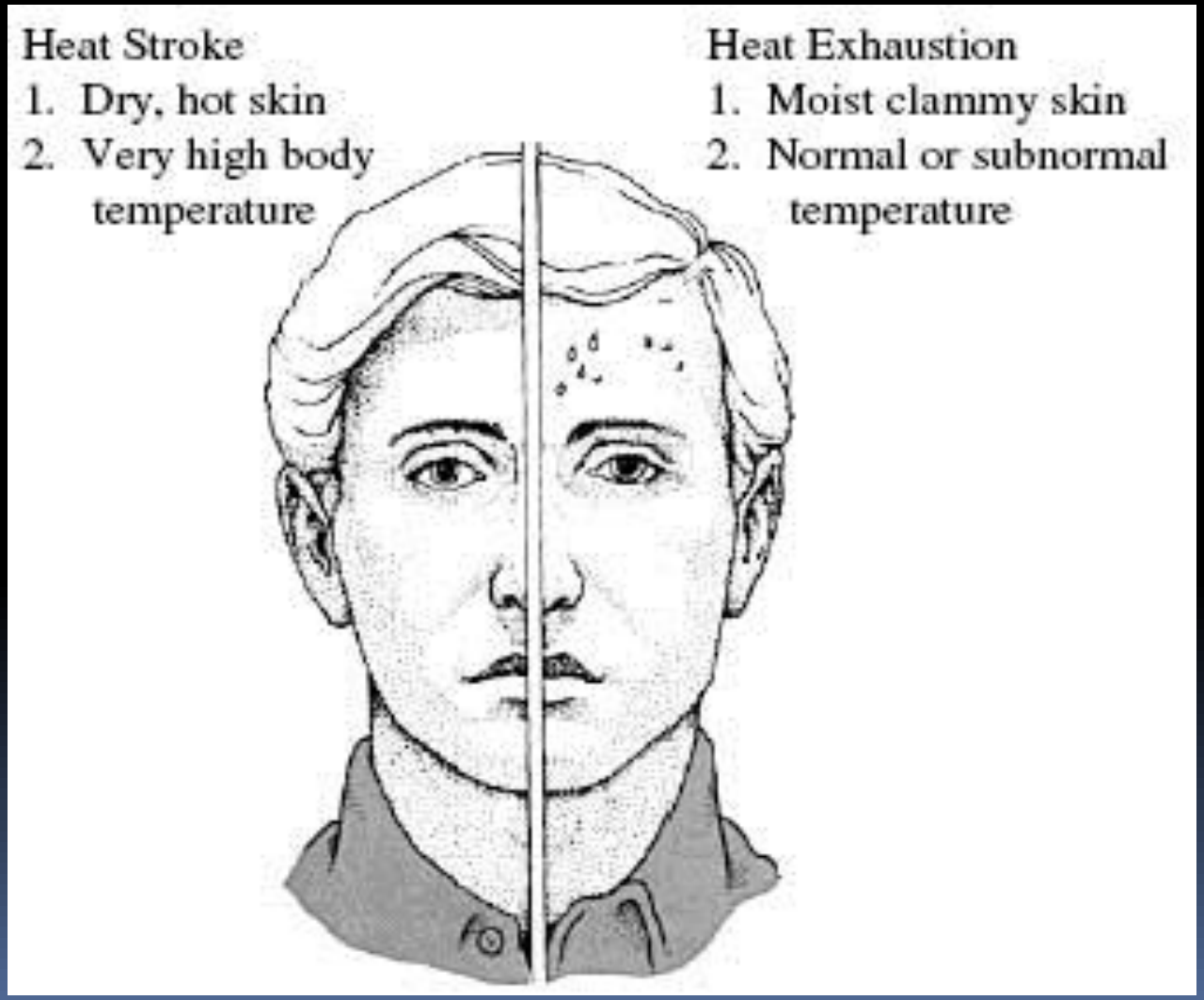
Heat Exhaustion

- Signs and Symptoms
  - Heavy Sweating
  - Weakness
  - Cold, Pale, and Clammy Skin
  - Fast, Weak Pulse
  - Nausea or Vomiting
  - Fainting
- Can Progress Quickly to Heat Stroke

Heat Stroke

- Signs and Symptoms
  - High Body Temp. (above 103)
  - Hot, Red, Dry, or Moist Skin
  - Rapid and Strong Pulse
  - Possible Unconsciousness
  - Core Temp > 104 degrees
- Life Threatening

Stroke Vs. Exhaustion



HYDRATION

Hydration

- Adequate Hydration
  - Urine is clear or very light colored
  - Will reduce heat related issues
  - Will increase your bodies ability functions
- Staying Hydrated with Exercise
  - For every pound lost you should drink 16 - 20 oz of water to replace those fluids

Hydration

- With small amounts of dehydration
  - Decreased brain function
  - Increased headaches
  - Become lethargic
  - Decreased alertness
  - Decrease in body and muscle function

Hydration

- IF YOU LOSE 5 LBs FROM THE START OF PRACTICE TO THE END OF PRACTICE HOW MUCH WATER SHOULD YOU DRINK THAT NIGHT?

Hydration

- 80 – 100 ounces of water!!!
- Equal to almost a gallon of water
- 1 Gallon is about 128 ounces
  - You should drink at least a gallon of water a day if you're a Football player

Hydration

- General Recommendation
  - Your average person should drink half their body weight in water per day.
  - If you way 225 lbs.
  - You should drink 112 oz. of water per day

Weigh In / Weigh Out

- Why we weigh in
  - To ensure that you are within 3% of the previous practices weight
    - If you've lost too much weight you're already starting off dehydrated thus increasing the risk of heat related illnesses
  - It is very important that we weigh in and out with a purpose and not just ignore the reason behind it
  - ITS FOR YOUR SAFTY

Weigh In / Weigh Out

- Weigh Out
  - This is mainly for your information
    - Allows you to know how much water weigh you've lost during practice that day
    - Thus how much water you need to drink that night to gain that weight back.
    - Remember that it's 16 – 20 oz. per pound you lose.

Injury Protocol for Athletes

- Athletes who are on the field when someone else gets hurt.
  - Never help that person up.
  - Move back to your team's location. (sideline, dug-out)
- If you get injured
  - Report it to your coach, then to the athletic training staff.

HELMET FITTING

Helmet Fitting

- Properly Fitted Helmet
  - Front of the helmet should sit 1 inch above the player's eyebrow
  - The Skin of the forehead should move with the front pad (no room for twisting)
  - The chin strap should be pressed firmly against the chin
    - feel comfortable as well as snug

EQUIPMENT MAINTENANCE

Equipment Maintenance By Athlete

Helmet

- Daily checks
  - Tight screws
  - Rust / Worn out pads
  - Tight facemask
  - Proper fit
  - Proper amount of air
  - Properly adjusted chin strap
  - No Colored or Tinted Visors
  - Cutting your hair will change the fit of the helmet
  - (Visors increase fog and heat)

Shoulder Pads

- Daily Checks
  - Clips are properly secured to straps
  - Straps are tight
  - Straps are not worn out
  - Strings in chest area are in good shape
  - All additional items attached properly
    - (back flap, collars, rib-protector)

Equipment Maintenance

- Clean your Equipment as often as you can
  - The school will do its part, but you also have to do yours. Please take your stuff home and clean it as often as you can.

TACKLING TECHNIQUE

Tackling Technique

- Poor Techniques
  - Head Down
    - Can be catastrophic
      - Life Altering and/or Life Changing for you and people around you
  - Arm Tackle
    - Leads to Stinger / Burners (nerve injury to shoulder)
    - Possible shoulder instability
    - Possible subluxations / dislocations
  - Plus More

Tackling Technique

- Good Techniques
  - Head Up
    - See what you're hitting
  - Hit with your shoulder
    - Get in front of the person you're hitting (Square Up)

PROPER USAGE OF EQUIPMENT

Proper Usage of Equipment

- Make sure you have pads where you are supposed to (this will reduce injuries and keep you within the rules of the game)
- Commonly moved or modified pads
  - Hip
    - Don't cut away the top of the pad as it was made to protect your Ilium.
  - Knee
    - Don't cut or try to shrink your knee pad as direct trauma to your knee will lead to increase complications.

CONCUSSIONS

What is a concussion?

Watch as Dr. Sanjay Gupta explains the physiology of concussions and possible long-term effects of suffering one.

http://www.youtube.com/watch?v=yyRBlSAfb_k

Symptoms

- Headache or “pressure” in head
- Nausea or vomiting
- Dizziness/problems with balance
- Feeling sluggish or hazy
- Confusion
- Double or blurry vision
- Eye Dysfunctions
- *And more as well*

Prevention

- Proper hitting technique
  - Head Up
- Proper fitting equipment
  - Helmet
  - Mouth Peace

Treatment

- This is a ***functional*** issue, not ***structural***

- The fastest way to recover from a concussion is to abstain from activities that could strain the brain such as:
  - Watching TV
  - Working/playing on the computer and cell phone
  - Video Games
  - Reading

  All of these activities heavily stimulate the brain and can lead to prolonged symptom recovery

Treatment

- The number one goal in recovering from a concussion is to become symptom free

New Research

- Neurofeedback
  - Is beginning to show promise in both diagnosis and treatment of concussions.
  - Reading and changing the wave patters in given locations of the brain.
  - The brain can be trained
    - Being used for ADHD as well as learning disabilities

Gfeller-Waller Concussion Awareness Act

- Gfeller-Waller Act was implemented in 2011 to protect the safety of student-athletes in North Carolina
- Outlines procedures for identifying and treating concussions
- Sets standards for both return to school and return to play policies

Gfeller-Waller – Return to Play

- Once cleared by a physician:
  - Day 1 – 20-30 minutes of walking, light weight lifting (no bench, no squat)
  - Day 2 – 30 minutes of jogging, moderate weight lifting
  - Day 3 – 30 minutes of running, sports-specific drills and regular weightlifting
  - Day 4 – Non-contact practice drills
  - Day 5 – Full contact practice
  - Day 6 – Full participation

For More Information on Concussions

- Look up CNNs documentary called "Big Hits Broken Dreams"
  - CNN works with J. H. Rose High School out of North Carolina
  - Southeast Raleigh is also apart of this documentary (via highlights)
  - https://www.youtube.com/watch?v=VH2KjltYXUY