WIAA FALL ACCLIMATIZATION

By: Wade Labecki, Ed.D., Deputy Director, Wisconsin Interscholastic Athletic Association

Wade Labecki

Why are changes needed?

Exertional heat illness (EHI) remains the #1 cause of preventable death in high school athletics. It also accounts for thousands of ER and doctor visits each year, time lost from athletics and learning. Between 2006-11, there were over 25 deaths due to EHI in HS athletics, more than any five-year span since the early 1970's. Status quo is unacceptable.

The WIAA has been providing member schools and coaches with information about heat illness and the risk of EHI; and limits of two-a-day practices for years. While there is a higher risk of EHI in southern states, it is a concern that cannot be ignored in Wisconsin. The NFHS has recommended policy changes for a few years, and there are rumors of future legislation on this issue based on the Korey Stringer Foundation guidelines. With a strong, evidence-based, effective policy for EHI, the WIAA will have an effective policy to protect the student-athlete. If legislation would come forward, the WIAA member schools have a policy in place, and if needed, the policy could be used as legislation. The WIAA has reviewed the NFHS recommendations, Korey Stringer Foundation recommendations, and guidelines in our neighboring states to create medically safe guidelines.

What is acclimatization?

It is different than "being in shape" and hydrated. It is the process of allowing the body to progressively adapt to exercising in the heat, so it can cool itself effectively and better tolerate physical activity. This takes about 10-14 days. Appropriate acclimatization practices will reduce the potential of experiencing EHI.

What sports are affected?

While EHI can happen in any sport (hot & humid gymnasium, unsafe weight loss practices with wrestling, etc.), football carries an 11 times higher risk than all other sports combined. Therefore, the immediate focus is on football acclimatization, but these changes for other sports will be considered as indicated. But these general guidelines can be followed for all sports.

When does EHI usually happen?

It mostly occurs during practice (75%) compared to competition (25%). It can happen at any time during practice, from early to > 2 hours in. Most cases occur in August (60.3%), and during the first several days of practice. This is a result of doing too much, too fast, too soon and often wearing too much equipment.

Who is at highest risk?

Higher risk individuals include younger, less experienced athletes that are overweight or obese (the OL and DL make up 50% of EHI in football). Athletes that participate in "equipment-heavy" sports have a higher risk (such as football or a lacrosse keeper). This is because equipment is a barrier to heat loss and can increase the core body temperature. Athletes that are not well conditioned or did not train in the off-season carry a higher risk. Also, consider athletes that trained indoors (A/C). Finally, athletes with a fever or illness, dehydrated athletes, and athletes taking stimulant medication for ADHD are at higher risk for EHI.

What else can be done?

Be prepared by having and practicing an Emergency Action Plan for each team and field/court, practice and game location. Learn more through the WIAA website (www.wiaawi.org) & NFHS (www.nfhslearn.com) which has a free webinar on acclimatization/EHI.

The heat index (combination of temperature and humidity level) should be regularly monitored, or if possible a wet bulb globe thermometer or a digital sling psychrometer should be used to determine the risk level at the practice location. Remember, the news & most websites rely on reporting from a local airport or TV station location, which may often differs from the field of play. These measurements should be repeated during participation. There are also helpful smartphone apps; CoachSmart is a free app that is highly recommended.

Finally, be willing to adjust practice as needed. Due to elevated risk, practice may need to be canceled or postponed. Going without pads and helmets can reduce the risk, as can reducing the intensity of practice by focusing more on technique or instruction over intense exertion. The heat index is often decreased in the early morning and later evening.

Hydration should be encouraged throughout the school day and after practice. Unrestricted and unlimited access to water throughout physical activity (practice and competition) should be allowed. Hydration breaks should be mandatory during practices. It's easy for athletes to follow a urine color chart to help them assess their hydration level (lighter yellow to clear).

How can we help athletes?

They need to know to report symptoms of heat illness right away. They also must know the importance of hydration. Developing a "buddy" system is also a good idea. Weighing in/out each and every practice is a very important tool.

Two weeks prior to the season, encourage athletes to begin gradually exercising in the heat. They should start at 15-20 minutes of intermittent exercise with hydration breaks, adding 5-10 minutes each day. Pre and post exercise hydration is important. It is also recommended that athletes exercise in pairs or groups.

What are the symptoms of EHI?

- Irrational behavior, irritability, emotional instability
- Altered consciousness, coma
- Disorientation or dizziness
- Headache
- Confusion or just look "out of it"
- Nausea or vomiting
- Diarrhea
- Muscle cramps, loss of muscle function/balance, inability to walk
- Collapse, staggering or sluggish feeling
- Profuse sweating
- Decreasing performance or weakness
- Dehydration, dry mouth, thirst
- Rapid pulse, low blood pressure, quick breathing
- Other outside factors may include:
  - They are out of shape or obese
  - It is a hot and humid day
  - Practice is near the start of the season, and near the end of practice
  - It is the first day in full pads and equipment

WIAA ACCLIMATIZATION GUIDELINES FOR FOOTBALL

1. **Short Days and Long Days** – every other day can be a long practice, which is a two-a-day practice.
   - **SHORT DAY**
     - Maximum practice is 3 hours of physical activity plus a 30 minute recovery period
     - A 30 minute recovery period (rest in a cool environment, pads and helmets off, hydrate) must occur no later than 2 hours into practice
     - Unrestricted and unlimited access to water throughout physical activity and strongly encouraged
   - **LONG DAY**
     - Maximum of one practice is 3 hours of physical activity plus a 30 minute recovery period
     - A 30 minute recovery period (rest in a cool environment, pads and helmets off, hydrate) must occur no

later than 2 hours into practice
    - Minimum of a 3 hour break without physical exertion, in a cool environment, with rehydration before the second practice that day
    - Maximum second practice is 1.5 hours with helmets, mouth guards only. May allow wrestling or volleyball style kneepads in an attempt to decrease knee abrasions and contusions, but this is not mandatory (similar to days 1 & 2)
    - Unrestricted and unlimited access to water throughout physical activity and strongly encouraged
    - The longer practice, which is limited to 3 hours of physical activity plus a 30 minute recovery period, may be at any time during the day. When combined with an additional helmet-only practice, there must be a 3-hour break between.
2. **Classroom and weight lifting sessions** are not included in the above "on-field" practice time.
3. **Practice Days 1 & 2**
    - Helmets and mouth guards only – shorts are recommended
    - May allow wrestling or volleyball style kneepads in an attempt to decrease knee abrasions and contusions, but this is not mandatory
        - Spider pads, hex pads or built in padding on clothing (e.g. Under Armor) are not permitted
4. **Practice Days 3 through 5**
    - Helmets, mouth guards and shoulder pads only – shorts are recommended
    - May allow wrestling or volleyball style kneepads in an attempt to decrease knee abrasions and contusions, but this is not mandatory
        - Spider pads, hex pads or built in padding on clothing (e.g. Under Armor) are not permitted
    - Teaching tackling is important, so consider "form fitting" for tackling technique
        - No increased equipment for these drills
        - Not driven to ground
        - Fall into pit
        - Not full speed, but 1 step
5. **Practice Days 6 to 14**
    - Begin with full equipment
    - Required one day of no physical activity: Teams must rest from all physical activity for at least one calendar day after six consecutive days of practice or competition.
6. **Scrimmages** may take place after 8 days of practice whether a short or long day
    - Acclimatization rules apply to scrimmages
7. **Practice Days 15 (week 3) to end of season**
    - Only 1 practice per day
    - Maximum practice is 2.5 hours
    - 30 minute recovery period not required
    - Monitor weather and heat conditions and adjust appropriately
    - Unlimited access to water and hydration should be available

2014 Example Practice Schedule

8/5 - Tuesday – First day of practice – **Long Day** – Helmets and mouth guards only
7:00 two hours of physical activity
9:00 recovery period
9:30 one hour of physical activity
10:30 – 1:30 three hour break (one hour lunch, one hour weight room, one hour classroom)
1:30 one and a half hour of physical activity – Helmets and mouth guards only

8/6 - Wednesday – Second day of practice – Short Day – Helmets and mouth guards only
7:00 one and a half hour of physical activity
8:30 recovery period
9:00 one and a half hour of physical activity

8/7 - Thursday – Third day of practice – Long Day – Helmets, shoulder pads and mouth guards only
7:00 two hours of physical activity
9:00 recovery period
9:30 one hour of physical activity
10:30 – 1:30 three hour break (one hour lunch, one hour weight room, one hour classroom)
1:30 one and a half hour of physical activity – Helmets and mouth guards only

8/8 - Friday – Fourth day of practice – Short Day – Helmets, shoulder pads and mouth guards only
7:00 one and a half hour of physical activity
8:30 recovery period
9:00 one and a half hour of physical activity

8/9 - Saturday – Fifth day of practice – Long Day – Helmets, shoulder pads and mouth guards only
7:00 two hours of physical activity
9:00 recovery period
9:30 one hour of physical activity
10:30 – 1:30 three hour break (one hour lunch, one hour weight room, one hour classroom)
1:30 one and a half hour of physical activity

8/10 - Sunday – No Physical Activity

8/11 - Monday – Sixth day of practice – Long Day – Full Pads
7:00 two hours of physical activity
9:00 recovery period
9:30 one hour of physical activity
10:30 – 1:30 three hour break (one hour lunch, one hour weight room, one hour classroom)
1:30 – one and a half hour of physical activity – Helmets and mouth guards only

8/12 - Tuesday – Seventh day of practice - Short Day – Full Pads
7:00 one and a half hour of physical activity
8:30 recovery period
9:00 one and a half hour of physical activity

8/13 - Wednesday – Eighth day of practice – Long Day – Full Pads
7:00 two hours of physical activity
9:00 recovery period
9:30 one hour of physical activity
10:30 – 1:30 three hour break (one hour lunch, one hour weight room, one hour classroom)
1:30 one and a half hour of physical activity – Helmets and mouth guards only

8/14 - Thursday – Ninth day of practice – Short Day – Full Pads
7:00 one and a half hour of physical activity
8:30 recovery period
9:00 one and a half hour of physical activity

8/15 - Friday– Tenth day of practice – Long Day - Full Pads
7:00 two hours of physical activity
9:00 recovery period
9:30 one hour of physical activity
10:30 – 1:30 three hour break (one hour lunch, one hour weight room, one hour classroom)
1:30 one and a half hour of physical activity – Helmets and mouth guards only

8/16 - Saturday – Eleventh day of practice– Long Day or Scrimmage

8/17 - Sunday – No Physical Activity

8/18 - Monday - Twelfth day of practice– Long Day – Full Pads
7:00 two hours of physical activity
9:00 recovery period
9:30 one hour of physical activity
10:30 – 1:30 three hour break (one hour lunch, one hour weight room, one hour classroom)
1:30 one and a half hour of physical activity – Helmets and mouth guards only

8/19 - Tuesday – Thirteenth day of practice - Short Day – Full Pads
7:00 one and a half hour of physical activity
8:30 recovery period
9:00 one and a half hour of physical activity

8/20 - Wednesday – Fourteenth day of practice – Long Day - Full Pads
7:00 two hours of physical activity
9:00 recovery period
9:30 one hour of physical activity
10:30 – 1:30 three hour break (one hour lunch, one hour weight room, one hour classroom) 1:30 one and a half hour of physical activity – Helmets and mouth guards only

8/21 - Thursday – Fifteenth day of practice – Short Day – Full Pads
7:00 one and a half hour of physical activity
8:30 recovery period
9:00 one and a half hour of physical activity

8/22 - Friday – Game Day

8/23 - Saturday – No practice scheduled

8/24 - Sunday – No Physical Activity

Remainder of the season – All short day in-season practices

In-Season Short Days – Full Pads
4:00-6:30 two and a half hour of physical activity
- Maximum practice is 2.5 hours
- 30 minute recovery period not required
- Monitor weather and heat conditions and adjust appropriately
- **Unlimited access to water and hydration should be available**