

**The College of William and Mary**  
**Division of Sports Medicine**  
**221-3407**

Please review the attached information concerning the prevention of heat illnesses and procedures for monitoring environmental conditions. Contact one of the athletic trainers immediately if you have any questions or concerns.

**Preseason Preparation:**

All student-athletes should be protected from premature exposure to the full rigors of sport competition. Therefore, each coach should design a progressive sport-specific pre-participation conditioning program, including minimal fitness requirements. The coach should consult with the athletic training staff and the strength and conditioning staff in the development of a preseason program. Every coach should strongly encourage their student-athletes to participate in a preseason conditioning program and realize that their student-athletes must meet minimal fitness requirements to participate. Student-athletes not meeting minimal fitness requirements should have their level of participation restricted until the minimal fitness requirements are met. Each coach should conduct fitness evaluations of their student-athletes during the first week of practice.

**Planning/Supervision:**

All intercollegiate athletic activities must be conducted with the safety of the student-athlete as the paramount concern. Each coach must take appropriate time and measures to plan and conduct safe, well-organized practice sessions. All practice sessions must be supervised by the coach. The coach is ultimately responsible for the safety and well-being of the student-athlete during all practice and competitive situations, as well as during team travel.

**Emergency Care:**

All coaches are required to be certified in cardiopulmonary resuscitation (CPR). The staff of the Division of Sports Medicine may, from time to time, conduct CPR training, free of charge for the intercollegiate coaching staff.

Each coach has the responsibility to request appropriate coverage of their practices and events according to departmental guidelines. When a member of the athletic training staff is not present, the coach or appointed representative has the responsibility for providing appropriate emergency care to an injured athlete. When an athletic event is covered by a member of the athletic training staff, appropriate emergency equipment will be available. All personnel are responsible for locating emergency communication sources and maintaining an awareness of established emergency and referral procedures, well in advance of the event or practice.

Keep this information for quick reference. Also, please review these procedures with all your student-athletes and members of your staff.

## **Prevention of Heat Illnesses**

General conditioning provides only partial heat acclimatization. Each coach should design a progressive sport-specific pre-season conditioning program, including minimal fitness requirements. Student-athletes not meeting minimal fitness requirements should have their level of participation restricted until these minimal fitness requirements are met. Every coach has the responsibility of designing practice schedules so that student-athletes will be exposed gradually to hot and/or humid environmental conditions over a period of 7 to 10 days to provide better acclimatization. Each exposure should involve a gradual increase in the amount, intensity, and duration of exercise undertaken over a period of days to weeks until it is comparable to that likely to occur in competition. If heat conditions are extreme (see below), practices or competitions should be held at a cooler time of the day.

When protective gear and clothing are worn, frequent rest periods should be scheduled so that the gear and clothing can be loosened to facilitate evaporation of sweat and other modes of heat loss. During the acclimatization process, it is advisable to use a minimum of protective gear and clothing and to practice in T-shirts, shorts, socks, and shoes.

It is the responsibility of every coach to obtain information pertaining to the environmental conditions prior to each practice. The athletic training staff can determine air temperature and relative humidity and will have guidelines to follow for each zone of risk:

### **Extreme Heat Advisories:**

#### **A. When in the "ALERT" zone:**

1. Special observation and considerations will be given to athletes susceptible to heat problems (athletes overweight or underweight due to water loss, history of previous heat illness, and athletes who normally reside in cool, dry climates).
2. Cold water should be easily accessible before, during, and after each activity.

#### **B. When in the "DANGER" zone:**

1. There should be several 5-10 minute rest/water breaks for activity lasting over one hour with a maximum of 30 minutes between each break.
2. Activities should be conducted during the coolest part of the day (before 10:00 a.m. and after 4:00 p.m.).
3. Decrease the intensity of activity and utilize loose, light colored clothing.

#### **C. When in the "EMERGENCY" zone:**

1. Practice must be postponed or conducted in shorts in addition to previous precautions.
2. Increase breaks to every 15 minutes and encourage unlimited water availability.
3. Decrease the intensity and duration of activity.

Each coach must insure that cold water is readily available to all student-athletes prior to, during and after activity. Dehydration must be avoided because it hinders performance and can result in profound and dangerous heat illness. Students-athletes should be encouraged to drink as much and as often as they comfortably can. If carbohydrate-replacement solutions are utilized, then care must be taken to ensure adequate gastric emptying of the fluid. Therefore, carbohydrate concentration should not exceed eight percent. Electrolyte solutions are not needed and salt tablets should not be used. Salt balance can be maintained with a normal diet.

With regards to the Fall sports, every student-athlete must record their body weight before and after every workout or practice. Weight charts and scale will be provided by the athletic training staff. The athlete must notify the athletic training staff if there is a progressive hypohydration or substantial loss of body fluids. Those athletes who lose five percent (or more) of their body weight over a period of several days, must be evaluated by an athletic trainer and possibly by a physician.

Every coach must realize that some student-athletes may be more susceptible to heat illness than others. The athletic training staff will notify the Head coach of any of their student-athletes with a previous history of heat illness or medical condition (*e.g.* fever, diarrhea) that could predispose them. The coach should identify those student-athletes who live in dry, cool climates, those with excess body fat, those in relatively poor physical condition, or those who regularly push themselves to extremes. If heat-illness is suspected, prompt emergency medical attention is imperative for the well-being of the student-athlete.

The attached information will be posted in each team locker room and in the athletic training facility concerning the signs of heat illnesses.

## Guidelines for Hydration

### ➤ **Did you know?**

- You need **8oz of water** for every waking hour!
- Thirst mechanism is **2-3 days** behind—by the time you are thirsty you are already dehydrated
- Dehydration of only 1% of body weight negatively affects your performance
- An easy way to measure your hydration status is the color of your urine. **Drink until your urine is clear**

### ➤ **Before Practice**

- Drink **20oz** of water or sports drink **2-3 hours** beforehand
- Drink another **10oz** right before practice
- Note your pre-practice weight

### ➤ **During Practices**

- Drink **7-10oz** of water every **10-20 minutes!**
- **Drink beyond your thirst!**
- Watch for the warning signs of dehydration listed below.

### ➤ **After practice**

- The best time to replace fluid with water or a sports drink is immediately after practice—you should complete your rehydration within 2 hours after practice
- Compare **pre-practice** and **post-practice weights**. If you lose greater than 1% to 2% of body weight, you must return to normal hydration status before being allowed to practice
- It takes **at least 20oz** of water to replace **every 1 lb** lost!!!
- Eat foods with **high water content** and **lots of carbs**
- Avoid drinks with caffeine, alcohol, carbonation, or high sugar.

### ➤ **Signs and symptoms of dehydration:**

- Thirst
- Headaches
- Weakness or Dizziness
- Cramps
- Nausea
- Diarrhea
- Constipation