

## UW Medicine

SPORTS, SPINE &  
ORTHOPEDIC HEALTH

### Runner Safety Information

#### TIPS FOR STAYING HEALTHY:

##### 1) Pre-Race Nutrition: Calculating Your Energy Needs

- Fuel for energy production during your race primarily comes from the breakdown of muscle glycogen (glucose stores).
- A well balanced diet combined with proper training will help prepare your body for the energy requirements on race day.
- A high carbohydrate meal the night before the race (pasta, rice, baked potato) can optimize normal glycogen levels at the morning of the race. However, do not overeat on the night before your race!
- On race day, eat a familiar high carbohydrate meal 1-4 hours before the race. This is not the time to introduce new foods! Practice your pre-race meals during your training sessions so you are confident you have the fuel your body needs and the time you need to digest it. Reduce the size of the meal the closer to race time it is consumed.
- Runners should consider 30-60 grams of carbohydrate per hour during the race by consuming liquid energy drinks, glucose “glue”, sports energy bars, bananas, or sports drinks.

##### 2) Race Day Hydration: How Much Is Enough?

- Both dehydration and overhydration can have a detrimental effect on your performance and your health, and so it is critical to understand your individual hydration needs.
- Drinking too much water or electrolyte replacement fluids can be harmful, especially for runners with longer race times (>4 hours).
- Hyponatremia, also referred to as “water intoxication”, occurs when fluid intake exceeds fluid loss (sweat loss) during exercise, diluting the normal body sodium level and can result in potentially serious medical problems such as nausea, fatigue, vomiting, confusion, and in the most severe instances seizures, coma and even death.
- Runners should try to match their fluid intake to estimated sweat losses and consider using an electrolyte drink during the race.

• Basic fluid replacement recommendations include about 10-20 ounces of an electrolyte (sports) drink 2-3 hours before the race. During the race, thirst can be used as a gauge for safe fluid replacement. Consumption during the race will generally range between 10-30 ounces per hour; however, actual amounts should be individualized and are affected by body size, sweat rate, temperature and humidity.

### 3) Running in Cold/Wet Conditions: Preventing Hypothermia

- Seattle can be cold and wet in November! Longer exposure (race) times to these conditions can increase the risk of lowering your core body temperature to dangerous levels (hypothermia).
- Signs of hypothermia include pale skin, shivering, lethargy, weakness, confusion, disorientation and clumsiness.
- Runners should dress in several layers of light, loose clothing. The first layer is preferably made of synthetic “wicking” material to draw sweat away from your body. For wet conditions, the outer layer is preferably a windproof and water-resistant jacket that allows moisture to escape. Layers of clothing can be removed as the race advances and the temperature rises.
- A hat and gloves can be particularly helpful in conserving body heat. A good pair of socks made of synthetic wicking material will help keep sweat away from your skin and keep your feet warm, dry, cushioned, and free of blisters.

### 4) Injury Prevention: Training, Stretching and Warm-up

- Appropriate training and race-day planning are the keys to preventing injuries during a marathon.
- Training for a marathon should be gradual to allow muscles, tendons, bones, and the cardiovascular system to adapt to the stresses of running.
- If you are new to running, successful training for a marathon may take 6 to 12 months, or even longer. Runners should be careful not to increase their total weekly mileage by more than 10% per week.
- Abrupt increases in running distance, intensity, or frequency may cause common overuse injuries such as shin pain, patellar tendonitis, iliotibial band syndrome, plantar fasciitis, or even stress fractures. Most of these injuries can be avoided by proper training and allowing the body to gradually adjust to the demands of higher levels of conditioning.
- Stretching and a proper warm-up are also important to prevent injury as the body needs adequate time to warm-up before heavy training or competition.

## 5) Medical Problems: Listen to Your Body

- Runners should not start the race with an illness or fever and not continue the race if they develop chest pain, chest pressure, lightheadedness, or severe shortness of breath.
- Runners should not “push through” significantly painful symptoms. If you develop unexpected limitations, slow your pace, walk, rest, or stretch before attempting to continue. If you develop major symptoms such as chest pain, difficulty breathing, lightheadedness, or confusion, stop immediately and ask for help.
- Remember, train appropriately, plan well, listen to your body, and, most of all, think safety first!

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