



## ***SOUTH CAROLINA FAMILY AND COMMUNITY LEADERS***

Affiliated with National Volunteer Outreach Network, Country Women's Council, U.S.A., Associated Country Women of the World and in partnership with Clemson University Cooperative Extension Service  
SCFCL website: <http://www.scfcl.com>

### **Hydration: How and When to do it**

#### **Objectives:**

The participants will be able to:

1. Describe the definition of hydration
2. Explain the importance of hydration
3. Identify the seasons of the year when hydration is a concern to health

**Lesson Overview/Introduction:** Proper hydration is essential to good health. The body's fluid balance effects functions of all major organs and general wellness. Staying hydrated is easy when you understand the signs to look for and know how to self-correct when the body's fluid is out of balance.

**Lesson:** Our bodies work best when kept at a temperature of about 98.6 degrees Fahrenheit. When we get hotter than that, our brains signal the body to cool itself off. The hypothalamus is the part of the brain that detects temperature and triggers sweat glands located just under the surface of the skin to produce sweat. Sweat is secreted onto the surface of the skin and begins the process of "cooling us off".

Imagine a dip in the pool. When we get out of the pool and we are still wet, the breeze passes over our skin and the water starts to evaporate. Sometimes we even get a little shiver as our body temperature decreases. If we don't dry off, we can sit in the sun for a while and stay relatively comfortable. That's because there is plenty of water on our skin that is evaporating, taking heat with it, and helping us regulate our body temperature. When there's no pool to dip into, our body makes sweat which puts water on our skin, evaporates over time, and cools our body temperature.

But sweat is not just water. It also contains some minerals called electrolytes. Electrolytes direct where the water in our body goes. Sodium and potassium are the electrolytes in sweat. These minerals move the water in sweat glands to the outer surface of the skin through tiny holes called pores. As a result, when we sweat, we don't just lose water, we also lose sodium and potassium. We all know that we need to replace water that is lost when we are sweating a lot. But if we are involved in

vigorous exercise, like running or working hard in the hot sun, for prolonged periods of time (more than an hour), we will also need to replace electrolytes. One way to do this is with sports drinks.

**Lesson leader:** At this point, stress the criteria for WHEN it is appropriate to consume sports drinks: After prolonged, vigorous exercise (more than 1 hour) during hot weather. This should create enough sweat to wet your clothes noticeably. It is common to feel sweat running on your skin or dripping off you at this level of activity.

Sports drinks contain water, sodium, potassium, and even a little carbohydrate to provide some energy during intensive activity. But timing is everything. Sports drinks are needed during periods of intense exercise or hard physical work that causes us to sweat longer than an hour. Performance and hydration will not be affected by drinking sports drinks before or after those activities. In fact, the carbohydrate in the sports drinks could add unwanted calories that aren't needed when we're just going about our regular daily activities. When we're not actively sweating, water alone will do the trick to keep us hydrated and healthy.

### Suggested Activities

There are many kinds of commercial sports drinks on the market. Gatorade is probably the most popular. But you can also make your own at home. This will save you lots of money if you work outdoors in hot weather, are a frequent exerciser, or an athlete with long workouts and training days. Here's an easy recipe that you can use to make your own.

#### Lemon-lime Sports Drink

1/4 cup lime juice

1/4 cup lemon juice

2 cups water

1/8 teaspoon salt

2 ½ tablespoons sugar

Combine all ingredients. Stir well. Store 5-7 days in the refrigerator.

## **Gatorade Taste Test**

Have members compare the cost and flavor of brand name sports drinks against the recipe provided for a homemade sports drink.

Examples of brand name sports drinks include Gatorade, Powerade, and Bodyarmour. Let members sample the flavor of each drink as compared to the homemade sports drink recipe.

### Discuss:

- Is the flavor more appealing for one of the options?
- Is the cost per serving different for the options?
- Do you or your family members consume sports drinks often and do you have a preference of brand name over homemade?

**Lesson Summary:** Keeping your body properly hydrated is a key component to your body functioning correctly. When you engage in physical activity for extended periods of time and sweat continuously, be prepared to rehydrate to return your body to a healthy state.

### **Sources:**

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