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News For

# SWIM PARENTS

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## The Importance Of Fluid Replacement During Training For Age Group Swimmers

By Dr. Keith B. Wheeler, Ph.D.  
and Angeline M. Cameron

**Question:** Can age group swimmers dehydrate during a 1 1/2-hour swimming workout? Does the temperature of the water alter the situation? How often, how much, and what should a swimmer drink to prevent dehydration?

**Answer:** Yes, dehydration, or a lowering of body-water levels significantly below normal, can occur in swim workouts of 45 minutes or longer. The body continues to lose water through sweat even when submerged in water. Also, a lot of additional water is lost through increased breathing.

The temperature of the water can affect the amount of water loss, with higher water temperatures causing greater body-water losses. Although research hasn't been done specifically with varying water temperatures, similar changes in body-water loss occur when air temperatures varies. Water loss in sweat increases approximately 13% for each degree centigrade (7% per degree Fahrenheit) increase above ambient air temperature. Thus, if a swimmer normally loses 2 pounds of weight (body water) during a 1 1/2-hour workout at a given temperature, a 5 degree F increase in water temperature would increase the body-water losses to 3 pounds. In the warmer water, the swimmer would need to drink an additional 16 ounces of fluid to maintain the same hydration level as in the cooler water.

Swimmers should plan to drink 16 ounces of fluid for each pound of weight lost during a workout. Fluid should be drunk over an entire workout, that is, 8 ounces of fluid should be drunk every 15 minutes. Water is a good source of fluid; however, glucose-polymer-electrolyte solutions such as EXCEED (R) Fluid Replacement & Energy Drink have been proven superior to plain water in maintaining body-water balance during many forms of exercise. Drinks containing simple sugar such as colas, thirst quenchers, and fruit juices, should not be drunk during a workout.

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Editors Note on August 17, 2009: The above article was written during the time that Swim Parent News was sponsored by Ross Laboratories, makers of Exceed. There are many fluid replacement sports drinks on the market at this time and ASCA encourages coaches and parents to make informed decisions as to which brand may be appropriate for the use of the athletes. Here is another article from the internet. If you click on the link and follow the story to the end you will find a chart comparing a number of fluid replacement drinks.

## **Nutrition and the Athlete Fluid Replacement**

By Linda Boeckner, Extension Nutrition Specialist,  
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Of all nutritional concerns for athletes the most critical is proper fluid hydration. One of the key functions of fluid for the athlete is for body temperature control. Lack of this element above all others can hinder performance and lead to more serious complications.

A fluid loss of as little as 2-3 percent of body weight impairs performance. Fluid losses of 7-10 percent of body weight will lead to heat stroke and death. For a 150-pound person, a 2-3 percent fluid loss equates to 3 to 4 1/2 pounds of body weight. *Read more at [http://www.healthgoods.com/Education/Nutrition Information/Nutrition for Athletes/fluid replacement.htm](http://www.healthgoods.com/Education/Nutrition%20Information/Nutrition%20for%20Athletes/fluid%20replacement.htm)*