

BEATING FATIGUE IN THE YOUNG SWIMMER

By Jill Castle, Registered Dietitian and Child Nutrition Expert

Many swimmers are in the thick of training season, going to after-school practice or meets, heading home for dinner, homework, studying, bedtime, and perhaps getting up early the next morning for an early practice.

It's a grueling schedule for any swimmer, and one that may be working toward fatigue and against peak performance.

Swimmers who drag through the day, lag in the pool, are moody and bordering on physical exhaustion need a wake up call—but not one from the alarm clock! It's time to get back to the basics: enough sleep, good nutrition and plenty of fluids.

Sleep: In general, children and teens need more sleep than adults. Children aged 7 to 10 years need about 10-11 hours of sleep and teens need 8-9 hours each day. During sleep, human growth hormone (HGH) is released, allowing the process of normal growth to occur.

Children and teen athletes may benefit from more sleep than non-athletes. In studies conducted by Cheri Mah, a Stanford researcher, college athletes (swimmers, football, basketball and tennis players) who were able to sleep ten hours performed better, logging faster times and quicker reaction times.

While researchers don't understand the sleep/performance relationship completely, improvements appear to be related to the release of HGH during sleep, which stimulates muscle repair and growth, bone formation and overall recovery from exercise.

Take-Away: Be sure to get at least the recommended hours of sleep for age, and consider extra time in bed, either at night or at nap time to optimize performance.

Nutrition: Good nutrition is essential to any sport, but the energy demands of swimming make the selection of food types and amounts important. Pay attention to the content of meals and snacks, selecting wholesome foods most of the time (90%), and Fun Foods occasionally (10%) as follows:

- Lean protein sources (lean meats, poultry, fish, beans, and eggs)
- Low fat dairy/non-dairy sources (low fat or skim milk, soymilk, low fat yogurt and cheeses)
- Fruit (fresh, frozen, dried and 100% juices)
- Vegetables (fresh, frozen, and low sodium canned)
- Whole grains (cold and hot cereals, pasta, bread/bagels/rolls, and crackers)
- Fun Foods (candy, cookies, ice cream, chips and French fries)

Food timing is just as important. Keeping up with nutrition means being more scheduled with eating, targeting meals and snacks every 3-4 hours. Skipping or delaying meals can translate to poor nutrition and reduced performance.

Take-away: Youth swimmers are unique in that they are still growing, which is a calorie demand in its own right. Coupled with swimming, the energy and nutrient needs of the youth swimmer are a prime concern for proper growth, minimizing fatigue and optimal performance. Make nutrition part of the schedule, giving it top billing on the priority list.

Hydration: Young swimmers can easily get behind on fluid intake and this can negatively influence energy level and performance. To stay ahead of dehydration, drink before, during and after training sessions and competition using these guidelines:

- Before: 6 milliliters (ml) per pound body weight per hour (ex: 100# swimmer needs 600 ml per hour or 20 ounces per hour)
- During: Take the opportunity to drink (if given), according to thirst

- After: 2 ml per pound body weight per hour (ex: 100# swimmer needs 200 ml per hour or ~7 ounces per hour)

Take-Away: Stay wet! In other words, get on top of hydration. Anticipate fluid requirements by calculating pre-training and post-training fluid needs. Drink enough at school and/or before practice. Be sure to pack enough fluids for training sessions and afterward to help with hydration recovery.

Jill Castle, MS, RD is a registered dietitian and child nutrition expert. She is the co-author of the upcoming book, Fearless Feeding: How to Raise Healthy Eaters from High Chair to High School (2013), and creator of Just The Right Byte, a child and family nutrition blog. She lives with her husband and four children (two swimmers!) in New Canaan, CT. Want to contact Jill? Email her at Jill@JillCastle.com.