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CARBOHYDRATE LOADING FOR YOUNG SWIMMERS

4/11/2013

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BY JILL CASTLE, MS, RDN

It's not uncommon to see teams of young swimmers filing into the local Italian restaurant to load up on pasta the night before a big meet. Or hear of parents planning to cook up a big meal with pasta, rice or potatoes at home. The common conception is that loading up on a high carbohydrate meal will prepare the muscles with a ready source of glycogen (stored carbohydrate in the muscle) the following day, usually a race day. As a result, the swimmer will avoid early muscle fatigue, low energy, and the big bonus: swim fast.



So the thinking goes.

The problem with the idea of carbohydrate loading in young athletes is that it is an approach based on what we know about the adult metabolism of carbohydrate. The reality is there is little scientific evidence supporting the benefit of this practice in children.

Kids are not like adults when it comes to breaking down, utilizing, and storing carbohydrate. Young swimmers (and all child athletes) use fat more readily as an energy source, which is not the case for adults. Young swimmers have a limited ability to store large amounts of carbohydrate in their muscles. And females have less overall muscle mass compared to males, and therefore, less capacity for glycogen storage.

Also, swimming on race day generally occurs in short, fast bursts. This limits the need for accessing glycogen and breaking it down, a need associated with prolonged exercise. And the truth is, we don't have a lot of evidence that high carbohydrate intake during prolonged training is beneficial in young athletes, either.

While this may go against what you have long believed about carbohydrate loading and general carbohydrate consumption for swimmers, rest assured, researchers still advise a daily high carbohydrate diet for young athletes.

They just don't support the idea that there is a benefit to carbohydrate loading for swimmers who are still growing. We do know that as children age, their ability to metabolize (process) carbohydrate becomes more adult-like.

The healthiest and best approach to getting the carbohydrate needed for optimal swimming performance is to follow a training diet that is loaded with fruits, vegetables, whole grains and low fat dairy products. Just as important is getting the timing of eating regulated. Eat every 3 to 4 hours, so there is a steady supply of carbohydrate and nutrients to the muscles and brain. Nailing these two nutrition strategies will keep the young swimmer ready for competition without a need to "load" with carbohydrate-rich foods the night before a meet, or go above and beyond your normal healthy meal.

Jill Castle, MS, RDN is a registered dietitian/nutritionist and child nutrition expert. She is the co-author of Fearless Feeding: How to Raise Healthy Eaters from High Chair to High School, 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. Find more about her at www.JillCastle.com. Questions? Contact Jill at Jill@JillCastle.com.

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