

News For

SWIM PARENTS

Published by The American Swimming Coaches Association

5101 NW 21 Ave., Suite 200

Fort Lauderdale FL 33309

Carbohydrate Loading

By Keith B. Wheeler, Ph.D.

And Angeline M. Cameron

Question: What exactly is carbohydrate loading? Is it appropriate for age group swimmers?

Answer: Carbohydrate loading refers to the process by which the carbohydrate (glycogen) stores in an athlete's active muscles are increased significantly above normal levels. This loading of carbohydrate in the muscles is accomplished through a combination of training and diet manipulation.

Specific techniques for carbohydrate loading have changed since the method was developed in Sweden. The original program consisted of 7 days of dietary management, beginning with exhaustive exercise bouts on the 1st day, followed by 3 days of extremely low carbohydrate consumption. The next 3 days consisted of an extremely high carbohydrate intake that caused the muscles to super increase their carbohydrate stores. In some people, this regimen produced nausea, fatigue, and diarrhea. Therefore, less drastic carbohydrate loading regimens were developed and are currently recommended.

Although, when done properly, it does increase muscle-glycogen stores above normal levels, carbohydrate loading is most useful for athletes who are preparing for endurance events such as triathons, marathons, cycling races, or open water long distance swimming. It should be done only a few times in a year. A nutritional concern that is more important to an age-group swimmer than carbohydrate loading is consuming enough carbohydrate on a daily basis. Age-group swimmers should get at least 60% of their daily calories from carbohydrate, which will maintain their muscle glycogen at levels that will support their training.