



Glycogen Depletion

Q. Can age-group children (9 - 12 years old) become glycogen depleted? How can a parent detect glycogen depletion and what should be done to correct it?

A. Yes, just like their older counterparts, age-group swimmers can deplete, or significantly lower, the glycogen (carbohydrate) stores in their muscles. If the body's need for energy to support growth and training consistently exceeds the supply, the athlete will become chronically fatigued. This fatigue is due, in part, to an inadequate supply of glycogen in the active muscles. Until the physical demand is reduced (training is cut back) or the supply of dietary fuel (mainly carbohydrate) is increased, the athlete will continue to be fatigued.

Detection of glycogen depletion is not easy because the symptoms are similar to those elicited by other physiological problems. However, chronic tiredness and/or early fatigue in a swimmer's normal training or exercise routine are the most obvious signs of glycogen depletion.

If the young athlete wants to regain his or her normal endurance and cannot realistically reduce daily activity, an increase in daily calories, especially carbohydrate calories is a must. Meals and snacks containing high-carbohydrate foods, such as bagels, potatoes, pasta, and fresh fruit, should be consumed. Concentrated liquid carbohydrate supplements, such as EXCEED High Carbohydrate Source, are also very useful in this situation. Liquid supplements provide needed carbohydrate calories without providing the bulk that would be in an equivalent amount of solid food. Additional bulk may not be well tolerated during an aggressive training program.