

## **RECOVERY FROM CYCLING**

### **Dr. John Cumiskey**

**After cycling for several hours your body needs to recover from all of the work. This not only means physically, but nutritionally as well.**

### **COOL DOWN**

**After a strenuous ride it is recommended to slowly ride for about 10 minutes. This allows your heart rate to gradually decrease. This also allows your muscles to gradually slow the rate of their metabolic processes.**

### **NUTRITIONAL RECOVERY**

**As most riders know fluid replenishment is very important after a ride. This does not count the fluid intake during the ride. You should either drink water or a sports drink after the ride. But how much? At some point, you should weigh yourself before and after a ride. Drink 20-24 fl oz water for every pound lost during the ride. If you lose greater than 2 percent of body weight during the ride then you are dehydrated. For example, if you weigh 130 pounds and return several hours later at 126 pounds, you're probably a bit dehydrated, but that would not be an unusual deficit after a long ride. You need to consume approximately 80 fluid ounces of fluid over the next couple of hours. This is relatively easy to do. Your thirst will usually guide you with this.**

**The most important nutrients to replace after a ride are carbohydrates. They are stored in muscle as glycogen. During exercise the body breaks down this glycogen to glucose and it is used as energy. Carbohydrate intake also boosts the production and release of insulin from the pancreas. Insulin is an anabolic (tissue-building) hormone that has a profound positive impact on protein synthesis in muscles, (muscle repair) and it also tends to suppress protein breakdown. Insulin also stimulates the production of muscle glycogen. Research has shown that eating 100-200 grams of complex carbohydrates within two hours of endurance exercise is essential for building adequate glycogen stores. Waiting longer than 2 hours results in 50 percent less glycogen stored in the muscle. So, after your ride, the sooner the intake the better.**

**Protein intake in combination with carbohydrate speeds recovery. Research shows that combining the two within two hours after exercises nearly doubles the insulin response. The optimal carbohydrate to protein ratio for this effect is 4:1 (four grams of carbohydrate for every one gram of protein). Eating more protein than that slows re-hydration and glycogen replenishment.**

**So what do I eat? You could buy a sports drink that has all of those nutrients in the proper ratio. It is quicker to digest in liquid form. Eat a snack containing 50-100 grams of carbohydrate (200-400 calories) within 15 minutes after finishing your workout. Liquids and solids work equally well. Examples include:**

**24-32 ounces of a sports drink such as gatorade**

**8 ounces of fruit juice and a medium bagel**

**1 serving of cereal with milk and a banana**

**2 slices of toast and a yogurt.**

**And finally, a massage to sore muscles is a quick way to recover. Massage helps relax tight muscles and remove the by-products of muscle metabolism that linger in the muscles after an intense ride.**