



# Recovery Nutrition for Open Water Swimming Events

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Based strongly on current research, effective refueling doesn't truly start until carbohydrates are ingested. The timing of recovery nutrition is crucial to optimize the limited time that you may have in between events or training sessions.

## A few key considerations for designing a recovery nutrition plan:

- What are you recovering from? Aerobic, energy burning activity? Or muscle tearing, high intensity activity?
- What nutrients will promote this activity in the most effective manner?
- What are the most practical foods that will deliver these nutritional needs
- What are your overall energy needs for the day to fit this recovery plan into?

## Again...Carbohydrates:

Muscle cell recovery occurs at a higher rate immediately after activity when compared to hours later. When provided enough carbohydrates to work with, 100% recovery still may take up to 24 hours. The challenge to many athletes is get to snacks and meals that will deliver ample amounts of glycogen restoring carbohydrates.

Carbohydrate Recommendations to Facilitate Glycogen Recovery:

- 1.0-1.2 g CHO/kg BM in the first hour, and every hour up to four hours post activity
- Recovery nutrition meals and snacks should be built into energy needs for the day
- Higher Glycemic Index (GI) foods may be more effective for recovery than Low GI foods
  - More breads, flakey cereal, rice, most fruits and juices
  - Less lentils, beans, oatmeal

## Some Protein is Necessary:

Depending on the activity just completed, key enzymes for recovery require protein. These are also most effectively replenished immediately following activity. Resistance exercise stimulates the synthesis of structural proteins needed to make muscles stronger, whereas endurance activity will need to replenish enzymes involved in energy metabolism.



Protein Recommendations to repair and replenish cells and enzymes for Recovery:

- As little as 10 grams of protein is beneficial for endurance activity, and as much as 20-25 grams may be worthwhile depending on body size and exercise intensity
- High quality proteins, such as eggs, meat and dairy foods
- These protein needs can be met if a meal will be consumed immediately after activity

## Fluid Replacement

Some degree of dehydration will occur following a intense practice or prolonged competition. Rehydration goals should be established

## The Big Picture:

It is important to be prepared with snacks and small meals for immediately after your race in order to maximize your recovery nutrition. Immediately sitting down for a high carbohydrate meal may be ideal, but preparation of snacks is often more realistic and highly crucial.

Food Item	CHO (g)	Protein (g)
20 fl oz cups Recovery Drink	100	8
1 medium Bagel + medium banana + 1 Tbsp Peanut Butter	62	15
2 cups cereal + 1 cup skim milk	84	17
9 fig newton cookies	84	7.5
1 ½ cups applesauce + ½ low fat cottage cheese	90	14
1 cup berries + 1 cup cereal + 1 cup nonfat Greek yogurt	67	18