

## During Exercise

Carbohydrate is the body's primary energy source during exercise. Dietary carbohydrates (grains, fruit, starchy veggies, milk and yogurt) are stored in the liver and in the muscle as glycogen. During exercise, the body draws upon these glycogen stores (primarily muscle glycogen) to fuel working muscles. The speed with which our body exhausts these energy supplies depends on workout intensity, such that harder, more intense workouts use up glycogen reserves more quickly than more moderate exercise bouts. Glycogen stores are limited, so during prolonged exercise > 60-90 minutes, consuming carbohydrate while exercising can help improve performance by:

- ✓ Reducing the risk of hypoglycemia (low blood sugar)
- ✓ Providing fuel for actively working muscles
- ✓ Sparing protein (you don't want your body to start breaking down muscle for energy)
- ✓ Preventing "bonking," or "hitting the wall" and being forced to slow down or stop

### What Should I Eat?

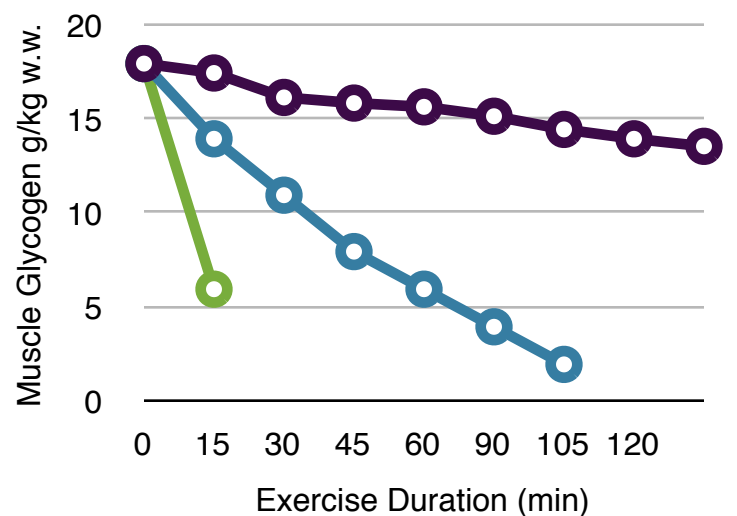
The table provides examples of solid foods, whole foods, and sport foods and liquids that can deliver carbohydrate while training/competing. What you choose is a matter of personal preference and tolerance. Research shows that 40-60g of carbohydrate per hour will help delay glycogen depletion and keep you feeling strong.

✓ Be sure to practice in training before trying something new in competition!

**To limit gastrointestinal distress during training/competition consider applying the following tips:**

- ✓ Get fit and acclimatized
- ✓ Stay hydrated
- ✓ Practice drinking during training
- ✓ Avoid "Over-Nutrition" both before and during competition
- ✓ Keep your pre-race meal moderate in protein and low in fat
- ✓ Eat a high-energy, high carbohydrate diet regularly
- ✓ Avoid high-fiber foods before exercise
- ✓ If prone to GI problems, limit NSAIDS (anti-inflammatory medication), alcohol, caffeine, antibiotics, & supplements
- ✓ Visit the Port-A-Potty BEFORE you start!

Glycogen Depletion at Various Exercise Intensities



● Easy (30%) ● Moderate (70%) ● Intense (120%)

Food	Carb Content
1 med banana	25g
1 slice Bread w/ PB	15-20g
1 Fig Newton Bar (2 Cookies)	14g
1 oz Pretzels	20g
1 Med white roll with 1 T jam	50g
1 Clif Bar / 1 Luna Bar	40-45g / 23-28g
3 Clif Bloks / 6 Luna Moons	25g
1 Sport Gel (i.e., Gu, PowerGel, ClifShot)	25g
Gatorade (8 oz)	14g
500-1000mL/hr (18-34 oz)	30-60g
Coke (12oz)	40g