

Why are Carbohydrates Important for Athletes?

Carbohydrates are one of the most important nutrients needed in an athlete's diet. Carbohydrates are vital to help reach peak performance during physical activity because they provide:

- **Energy:** Carbohydrates are the main source of energy for our brains and bodies to function properly. When carbs are eaten they are eventually digested and broken down into smaller sugar molecules called glucose. These glucose molecules are stored in the liver and muscles to be used for fuel, especially during physical activity. Carbohydrates improve athletic performance by delaying fatigue and allowing an athlete to compete at higher levels for longer.
- **Muscle Gain:** Without an adequate amount of stored glucose in the body, other nutrients, such as fat or muscle protein, are utilized to make energy. With the correct amount of carbohydrates available to muscles, protein can be free to do its main job of repairing and rebuilding muscle tissue, which maximizes muscle gain.



How Carbohydrates Work to Help You Perform Your Best:

As exercise increases, muscle glycogen (where we store carbohydrates) becomes used up, which causes a higher need for carbohydrates. For children and teens involved in high intensity athletic activities, eating the right amount of carbohydrates before, during, and after an event is very important! Often teenage boys are fooled into thinking low-carb and high protein diets will help them gain significant muscle mass. This is NOT true. A diet low in carbs will not only decrease muscle potential; it will also worsen overall athletic performance.



Foods that contain a significant source of carbohydrates include:

- Grains: Whole grains are best, like corn tortillas, whole wheat pasta and whole wheat bread, spelt, quinoa, brown rice, beans, whole oats, or 100% whole grain cereal
- Fruits: Fresh, frozen or canned in its own juices
- Milk and Yogurt: Low fat, RgBh free or organic when available.
- Vegetables have a small amount of carbohydrates.

