**Carbohydrates**

- Carbohydrates are the primary fuels your muscles use for exercise; think of it the same way we use gasoline in our cars.
- During regular endurance exercise you can burn 60 – 80 grams of carbohydrate for every hour you exercise.
- 60% of your diet should come from carbohydrates. In other words, when looking at a plate of food, a little more than half of the food should be carbohydrates.
- Good carbohydrate sources include rice, grains, fruits, pasta, and potatoes.
- Foods that come packaged and/or contain high amounts of sugar are not good carbohydrate choices.

**Protein**

- Hours of exercise require your muscles to be able to recover.
- Optimal recovery requires good nutrition and rest. Without proper recovery, your body will become tired and sore. This may make you more prone to sustain an injury.
- Protein should make up around 15 – 20% of the calories you eat every day or what one large piece of pizza would look like when taken from a full pizza.
- A 110 – 130 pound athlete should ingest around 100 – 150 grams of protein each day.
- Don’t eat TOO MUCH protein. Replacing carbohydrate with protein may limit your body’s ability to recover and have a negative impact on your health and performance.
- Good protein sources include chicken, turkey, beef, fish, dairy (milk, cheese, cottage cheese), and eggs.
- Vegetables contain small amounts of lower-quality protein.

**Fat**

- A very important nutrient! DON’T AVOID or eliminate fat from your diet.
- Your brain, nerves, and muscles all NEED fat to function.
- Minimize your intake of saturated fats and trans fats. Cookies, donuts, and potato chips all contain high amounts of saturated and trans fats.
- Optimal protein sources include chicken, turkey, beef, fish, dairy (milk, cheese, cottage cheese), and eggs.
- Eating more frequent, smaller meals.
- Consume a small amount of protein with every meal and eat something as soon as possible after every workout. For every gram of protein, eat 3 – 4 grams of carbohydrates.
- Eat a snack like this within 30 min of every workout!

**Carbohydrate Sources**

- Good carbohydrate sources include rice, grains, fruits, pasta, and potatoes.
- Foods that come packaged and/or contain high amounts of sugar are not good carbohydrate choices.

**Hydration**

- Don’t wait until you are thirsty; dehydration has already reduced your performance.
- You should drink fluids:
  - All day long
  - Before it’s time to exercise
  - During your workout, practice or competition
  - After your workout, practice or competition
- Three things need to be replaced when your body sweats for a prolonged period of time:
  1. The fluid (water) you are sweating
  2. The electrolytes found in your sweat
  3. The carbohydrates your muscles are burning for fuel
- Drinking only water replaces the fluid you are losing.
- Drinking a sports drink replaces all three of these things.
- Soda, energy drinks, and alcohol do NOT provide adequate and present additional challenges to your body.
  - If exercising for more than one hour, especially when hot, do NOT drink just water, you should drink a sports drink.
  - After exercise, chocolate milk is a good alternative to replace lost nutrients and help your body to recover.

**Monitoring**

- Drink before you feel thirsty.
- Your urine should be clear.
- Urine that is dark yellow, orange or brown means you are dehydrated.
- Your body weight should remain similar from one practice to another.
- Don’t allow athletes to practice if their body weight doesn’t return to within one pound of their previous day’s body weight.
- More than three pounds should be lost each week.
- Record body weight before and after every practice.
- For every pound lost, drink 1.5 – 2 cups of fluid until body weight returns.
- Rapid weight loss isn’t fat being lost, it’s water. This is not good.

**Supplementation**

- Let’s Make a Deal:
  - Focus your time and energy on good food and building healthy habits in your diet.
  - Consider supplementation only after:
    1. You regularly eat breakfast on a daily basis.
    2. You regularly eat three meals and two healthy snacks each day.
    3. You only use a meal-replacement as a snack and NOT a meal.
    4. You identify five quick healthy snacks that are available to you at all times.
    5. You only use one serving of whey protein at a time (20 – 25g).
    6. You begin eating fresh fruit or whole grains with protein shakes or sports drinks.

**Carbohydrate**

- The most important consideration is to replace the fluid, carbohydrate, and electrolytes you lose while exercising.
- Regular ingestion of a sports drink before, during and after a workout or competition is critically important.
- Drink 2 cups of a sports drink within 30 min of starting a workout.
- Drink 1.5 – 2 cups of a sports drink every 15 min during exercise.
- For every pound lost, drink 2 cups of a sports drink or alternate with water.

**Protein is Important for Recovery**

- Adding a little protein to a carbohydrate source may help speed up recovery and minimize muscle damage.
- Whey protein is a popular, high-quality form of protein found in milk.
- 15 – 25 grams of a high-quality protein source provide adequate nutrients to maximize recovery and muscle growth.
- Ingesting 3 – 4 grams of carbohydrate for every gram of protein may be the most beneficial and an important combination for recovery.

**Other Possibilities**

- Caffeine may help improve focus and endurance exercise performance.
- Energy drinks providing high amounts of sugar and caffeine may not be the best choice for health and performance; limited research suggests performance increases.
- Nitric oxide stimulators have ZERO studies to show they help improve strength, muscle gains or anything related to a positive outcome.
- Creatine is not ideally suited for endurance activities and may stimulate an increase in your body weight that may make it harder to compete effectively.