



Eating Right, Swimming Faster Session 1

First, I'd like to start off by stating I am not a Doctor, Registered Dietician or a nutritionist. I am a swim Coach brining awareness to the benefits of fueling for a competitive swimmer. My Primary goal here is to inform you, the parents on the needs of fueling as you are the front line to the athlete. It all starts at home. When the parent's buy in then the athlete will buy in.

Athletes need carbs, do not let the latest diet craze influence the way your athlete is fueled. You are dealing with an athlete who is NOT just a normal non-athletic individual. Your Athletes must understand this. The work starts at the dinner table. Your dinner table.

Getting your nutrition right is key for athletic success. The right meal and the right snack choices every day will significantly improve your athlete's performance in training and competition. The benefits look like:

- Train harder for longer
- Recover quicker between training sessions
- Race faster at competition

Not only that, but you will stay healthier throughout the season, which means fewer training days and competitions missed through sickness. I see this happen all the time with athletes not fueling properly and trying to meet the demands of training.

Carbohydrates are the essential fuel for high performance athletes

As an athlete, carbohydrate is your body's preferred fuel, especially for high intensity swimming. Eating carbohydrate foods at regular intervals throughout the day will top up your muscle fuel and allow you to push yourself harder in training. All of your meals and snacks should be based on carbohydrate foods. However, not all carbohydrate foods are created equal. The quality of your carbs counts! Good quality carbohydrates will energize you, promote good health and help you perform at your best.

Good carbohydrate choices are:

- whole grain breads, whole grain breakfast cereals, oats, pasta with red sauce, brown rice, quinoa, baked potatoes, sweet potatoes, yams, sweetcorn, chick peas, beans, lentils and fresh fruits.

Protein is essential for muscle repair and growth.

Your body also needs a regular intake of protein for ongoing muscle repair and growth. It is not necessary to consume high amounts of protein as any excess protein will not turn into more muscle, but will be burned as fuel or stored as fat. Each of your meals should include a moderate serving of lean protein, the size and thickness of the palm of your hand or one-quarter of your plate. For snacks, include some protein with your carbohydrate food.

Convenient, easy protein sources for snacks are:

- milk, cheese, yogurt, boiled eggs and nuts.

Fats is essential to give your body energy and to support cell function. They also help protect your organs and help keep your body warm. Fats help your body absorb some nutrients and produce important hormones, too.

The Impact of Nutrition

Parents and athletes need to understand the relationship between what you eat and how well you perform.

Nutrition has an enormous impact on a swimmers' performance. Without enough energy or calories coming in, you cannot expect your body to respond quickly to the high demand of our sport.

For example:

Without sufficient carbohydrates the body will not be able to sustain the demands of training. Carbohydrates are stored in your body as glycogen. Glycogen is the main source of fuel for training and competing. Athletes that are low on or have no carbohydrates run the huge risk of becoming glycolic. Once a body reaches a glycolic stage it takes several days to repair and replace.

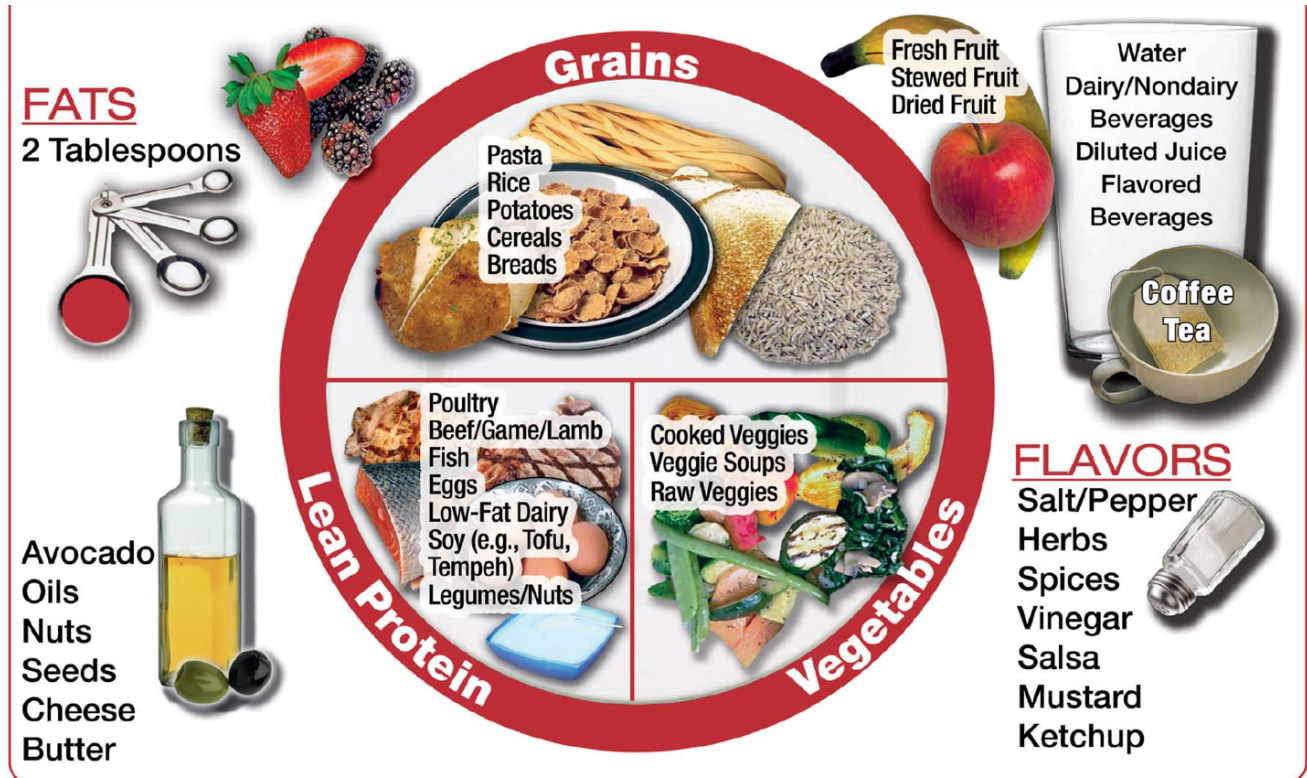
Without sufficient protein, muscles cannot grow stronger.

Without enough calcium, magnesium, potassium and other nutrients, muscles cannot contract and relax at the proper times. **These are electrolytes. Electrolytes are called this because they carry a small electrical charge to fire contraction of muscles.**

If a swimmer eats too much sugar at the wrong time, their energy will quickly diminish resulting in weakness and fatigue.

Athletic progress is accomplished by continuously stressing your body and allowing it to recover. If you do not receive adequate nutrition from your Daily intakes, this recovery is not possible. For swimmers it is even more challenging because we are conflicted between staying lean but providing enough fuel for our body. I often hear swimmers say, "I can eat anything and I don't gain a pound." Just because the scale doesn't change, doesn't mean you can eat anything and everything. **It is extremely important that swimmers give themselves the right kind of fuel, at the right times throughout the day.**

Swimmers Plate



Here you can see:

- Half the plate is full with pasta, potatoes, cereals, breads, rice which falls in the carbohydrate world
- Quarter of the plate is lean Proteins and Low Fats
- Quarter of the plate is colorful veggies
- bananas and fruits are surrounding the plate as additional items.

Athletic Caloric Needs:

Examples:

A 15 year old sprinter doing 5,000 yards might require **3,500-4,500** calories a day but if the same athlete was a distance swimmer doing 9,000 yards daily they will probably need closer to **5000-6000** calories a day.

If a 17 year old female did the same workouts, she may need **3,000 -3,750** calories or **4,200-5,200** calories respectively.

How does that break down into our sources of calories

55% Carbohydrates

This comes through out the day

Breakfast, snack, pre workout meal, pre training snack, sports drink, post training

35% Proteins

This comes through the day as well with more happening after training

Chocolate milk checks all the boxes for after training

10% Fats

Through the day

Fueling for performance is specific to the individual. It not only alters athletic performance but can also change your mental state, ability to focus, decrease injury, elevate school work, etc.

- It can often be beneficial to meet with a Sports Dietitian to assess your needs and come up with a game plan! We are providing some tools to just bring awareness to help

Hydration needs- **Thirst Lags behind the bodies needs**

In order to stay hydrated, swimmers should drink fluids before, during and after training and events..

Although it can be difficult to identify sweat loss because of the water-based environment, pool areas (especially indoors) are often warm and humid which increases fluid losses. **Fueling bottles** should be taken to training and competitions and placed in an easily accessible location to ensure fluids are consumed regularly.

For most training sessions water is sufficient to meet hydration needs. However, if training for maximum performance, or during very long 90-120 minute training sessions, sports drinks are most useful as they **provide carbohydrate** for fuel and electrolytes and fluid for hydration goals.

3 Steps to Being Well Hydrated

1. Begin exercise well hydrated. Drink 16 oz about 2 hours before practice and another 8-16 oz about 15-20 minutes before practice.
2. During exercise
 - If less than 60 minutes, drink 6-12 oz of water every 20 minutes
 - If more than 60 minutes drink 6-12 oz every 20 mins of a 6-8% Carb solution drink (ie Gatorade)
3. After exercise, drink water with carbohydrates or chocolate milk to speed up the recovery process. **Thirst lags behind the body's need.** Prevent yourself from becoming thirsty because if you're thirsty, then you are already dehydrated.

Without enough (**electrolytes**) calcium, magnesium, potassium and other nutrients, muscles cannot contract and relax at the proper times.

PARENTS:

Recommendations to assist your athlete in planning for competition:

1. Be prepared- send your swimmers to practice and meets with food, or, figure out where you will be eating in advance if you're away from home at meets!
2. Constant intake of energy. Make sure snacks are available in their bags, lockers, cars, etc.
3. **Carbohydrates are key.** It is fast, available energy. **Athletes need carbs, so do not let the latest diet craze influence the way your athlete is fueled. You're dealing with an athlete. Not just a normal person who is non athletic. Teach them to understand the difference**
4. Rule: Testing a new thing at a meet is not good. If your swimmers don't eat or drink it before, during or after practice, they shouldn't consume it during a meet. A meet is not the time to try something new.
5. A meet is a good time for "supplements" such as energy bars, gels, Honey stingers **carbohydrate solutions, etc.**
6. Choose foods that do not cause GI distress. **High fat, high protein foods cause GI distress.** As well they are slow to empty from the stomach **unlike carbohydrates which empty quickly and supply glycogen to the body**
7. Meets: Research the area you will travel to ahead of time and determine food availability. Identify restaurants you know who offer good options, grocery stores close to the hotel, and if it is possible to prepare food in your hotel.
8. Work with coaches to create a timeline with your swimmer for consuming food and fluids throughout the day. This will help ensure you don't overeat or skip meals, snacks, or hydrating opportunities. The timeline should be based on their race schedule and should be practiced prior to race day.
9. When competing in multiple sessions, it is important that an athlete consume a post-race snack immediately to recover and prepare for their next race.

