

Swim Nutrition

Train | Compete | Recover

Macros Explained

What are the macros? What do they do? How much do we need?

- Carbohydrate's main purpose is to provide immediate energy to the body in the most readily available form of glucose. Carbs should make up about 55-60% of your calories.
- Proteins are used for building; they are made of amino acids which you can think of as lego bricks. Lego bricks that build muscle, bone, tissue, and blood! You need about 15-20% of your calories from protein.
- Fats are used to store large amounts of energy as well as cushion and support the organs; we need fats to survive! Fat rounds out the last 20-30% of your caloric demand.

Breaking it Down

Macro nutrients provide differing amounts of energy to your body! Carbs and proteins both provide 4 Cal of energy per gram but fats provide 9 Cal! Don't just look at Calories but what their breakdown is!



Why Sports Nutrition?

All athletes struggle to find the right nutrition strategy for their sport if left on their own. Swimming is particularly difficult to pin down; swimmers tend to over-eat, under-eat or simply eat the wrong things. The importance of developing an eating plan or specific strategies can help an athlete make the most of their day to day training and help them to compete at the highest level.

What's Special About Swimming Nutrition?

When most people think about what swimmer's eat, they think about the colossal amounts of calories that we can put down on any given day. However, this shouldn't come as a surprise; the amount of energy needed to fuel 20 hour training weeks can be astonishing. In fact, a large number of swimmers tend to under eat in general, or not get enough of some of the macronutrients. If you don't get enough carbs for example, you might feel increased fatigue, soreness, and even a decreased immune system! Does this mean that you can fill up on my personal favorite: Little Debbie Zebra Cakes, and be successful? Probably not; *the right type* of calories matter. This article is designed to help you navigate the waters of swimming nutrition.



Recovery Strategies

Despite what pop culture wants you to believe, a 1000 Cal recovery shake with 4 scoops protein powder does not maximize your recovery potential. Here are some guidelines to follow post workout.

- 1g carb per 1 kg body weight immediately after a 90-120 min swim practice.
- 20g protein following intense pool workouts and weightlifting/drylands sessions.
- In between doubles, 1g carb per 1 kg body weight at 60, and 120 minutes post workout.
- Rehydration of about 125-150% of body sweat lost during exercise (1-2 gatorade bottles, typically).

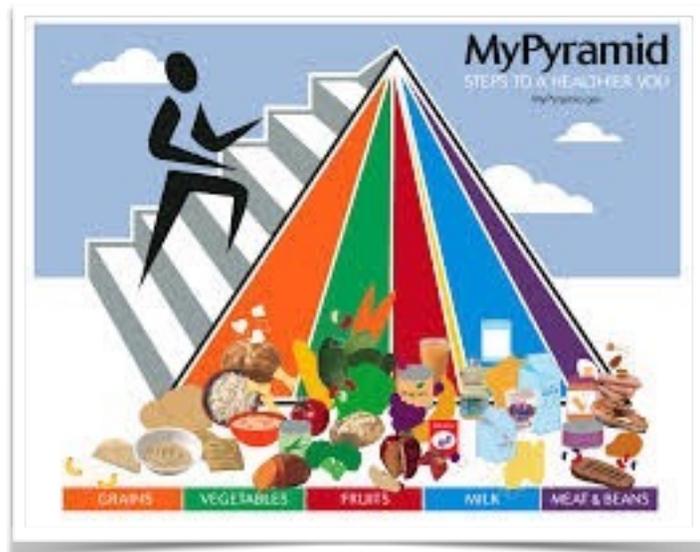
On days with doubles or between sessions of a meet, refueling is most critical. 'Doses' of carbs after activity and at intervals following allows the muscles to store as much energy as possible for that next bout! The maximal amount of protein that the body can utilize at a given time is between 20-25g so don't waste your calories on 40-50g servings!

Nutrition for Competition

We look forward to taper and end of season competitions for most of the year. What most swimmers don't account for is that their training volume will decrease 40-60% over a period of 2-3 weeks and the nutritional needs should decrease accordingly. Fueling for the taper training is only a portion of the equation. Here are some tips that will help you compete to the highest level during a 2-3 day, multiple session meet:

- Eat a pre-race meal that is carbohydrate rich 1-3 hrs before warm up. It should be familiar and well tolerated.
- Have fruit, cereal or granola bars ready during the session to avoid hunger. Sports drinks also provide easy carbs.
- Post session recovery should include 20g protein and carbohydrate replenishing. Keep in mind to have small carb meals at 1, 2, and 3 hours post session.
- Keep track of the amount you are eating during a meet. Remember, you're not training right now, your energy expenditure is much lower than normal. Overeating can make you feel sluggish.

During a swim meet, you should plan and pack for all types of unplanned delays or eventualities. Having a protein shake or peanut butter sandwich on hand after a session is a good way to be meet recovery needs if travel is delayed between sessions.



Specific Nutrition Examples

What are the Best Carbs to Eat?

There are a ton of carbohydrate options to choose from throughout the day. Making sure you select the best ones can be tough but these guidelines can help:

- Steel cut or old fashioned oats. Select some that have 4g fiber and less than 8g sugar per serving
- Buy breads that whole wheat or rye. Better yet, find breads that are 100% whole grain
- Subbing whole grain pastas for enriched flour pasta is an easy change to make.
- Brown rice, quinoa are great, low sugar alternatives to breads
- Eating fruits as they come are a better choice than getting your fruit from pre-packaged smoothies such as Naked®

What are the best Proteins?

When you eat protein, ideally it should contain all of the essential amino acids needed for synthesis. Sometimes mixed protein sources are needed depending on your eating habits. Below are good sources of protein at about 20g each:

- 3 large eggs
- 20 oz skim or regular milk
- 10 oz greek yogurt
- 3 slices reduced fat cheese
- 3 oz ground beef, steak, turkey or chicken
- 3 oz salmon, tuna, halibut
- 5 tbsp peanut butter
- 5 oz mixed nuts
- 1 cup edamame
- 5 oz tofu
- 1 scoop protein powder

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Resources

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3. Shaw G, Boyd KT, Burke LM, Koivisto A. Nutrition for swimming. *Int J Sport Nutr Exerc Metab.* 2014;24(4):360-372.