

Nutrition for Swimmers

Carbohydrates

Why Carbohydrates are important

- Carbohydrates are best known for their ability to give the body energy
- Carbohydrates are stored in the form of glycogen in muscles, after a hard workout these stores are depleted and must be refilled by eating carbs in order to be ready for the next workout

Simple vs Complex

- Simple carbs can also be referred to as quick burning carbs because they are digested very quickly in the body
- These types of carbs cause a big spike in blood sugar
- Complex carbs can also be called slow burning carbs because they provide a sustained output of energy over a longer period of time
- Complex carbs should be everyone's primary source of carbohydrates, which will help individuals avoid big blood sugar spikes followed by the subsequent crashes.

When to consume carbs

- To get the most use of carbs it is beneficial to consume them 1-2 hours before a workout, depending on the source.
- Consuming complex carbs after a workout will help the body replenish glycogen stores in the muscles, which will help ensure that you are ready for the next workout or race

Types of carbs

- Carbs are found in most foods that we eat on a daily basis, however in varying amounts and forms
- For example both fruit and vegetables contain carbs, however the carbs in fruit are in the form of sugar whereas the carbs in vegetables are in the form of starch and fibre
- Grains are almost solely comprised of carbs, while beans and legumes are mostly carbs with a bit of protein
- Each source of carbohydrate can be beneficial at different times. Fruit can be great right before a workout or during a swim meet when you need a quick energy boost but shouldn't be your main source of carbs. Vegetables are great because of their low sugar content however some may find that high fibre foods immediately before a workout or during a swim meet may not suit them.

Top 5 Carb sources for athletes

1. Sweet Potato
2. Squash
3. Bananas
4. Berries
5. Rolled Oats (different from quick oats)

Recipe - Overnight Oats - [link to website](#) or written out

Protein

Why Protein is important

- In the body protein gets broken down into individual amino acids which are then used to repair muscle tissue
- Without adequate protein intake an athletes muscles will be unable to repair and get stronger, which can result in a plateau in training and performance.
- Protein needs vary depending on factors such as the size of the individual and how often they are exercising.

Top 5 Protein Sources for Athletes

1. Beef (hormone free and/or grass fed)
2. Eggs
3. Chicken (antibiotic free and/or pasture raised)
4. Wild Salmon
5. Nuts & Seeds

Protein Powders

- Protein Powders can be useful for athletes that are doing high amounts of training and are struggling to get in enough protein. However that doesn't mean that everyone needs to be using them all the time.
- When using a protein powder it is extremely important that the proper research is done before hand to ensure that you are using a quality brand that is free of additives, excess sugars and fillers.

Top 3 Protein Powders

1. Genuine Health Proteins + (both and whey and plant sourced proteins are good)
2. Sun warrior (blend or original)
3. Vega Sport or Vega One (sometimes available at Costco)

Fat

Why fat is important

- Fat is the most overlooked macronutrient when it comes to proper nutrition
- Fat is key for providing satiety as well as helping the body synthesize protein into a usable form
- When fat is lacking from the diet it is common to experience mental fatigue as well as lack of focus, two things that definitely won't benefit an athletes performance

Healthy vs Damaged Fats

- Fats can be split up into 2 categories, the **Healthy** fats and the **Damaged** fats.
- Healthy fats consist mostly of omega 3's and 6's, whereas damaged fats are fats that are highly processed and found in processed foods
- Damaged fats create inflammation in the body which makes it harder to recover after a workout.
- Damaged fats do not provide any of the benefits of fats listed above.
- Damaged fats to watch out for and avoid include: vegetable oils, margarine, soybean oil, peanut oil, safflower oil, most fats found in highly processed foods on the shelf

Top 5 fat sources for athletes

1. Butter (preferably grass fed)
2. Wild Salmon
3. Coconut oil
4. Raw Nuts & Seeds
5. Olive Oil (good quality)

Tip: Adding a bit of butter on top of cooked veggies is a great way to get healthy fats in and it also makes many of the nutrients in the vegetables easier for the body to absorb.

Nutrition for Double Practices

- When an athletes has two practices in a day nutrition becomes even more important.
- It is important that enough nutrients are being given to the body to make sure that the body doesn't go into a deficit, which can happen over a longer period of time. This can make an athlete more prone to injury and burnout.

Things to keep in mind on double days

1. Try and consume something small before the first practice to make sure that you aren't putting your body in a nutrient deficit right at the beginning of the day
2. Consume adequate amounts of protein at all three meals
3. Have healthy snacks on hand so that you aren't tempted to grab a sugar filled treat in the middle of the day
4. Ensure adequate amounts of fat are consumed to help prevent an afternoon energy slump
5. Focus on complex carbs to provide sustained energy, rather than the spike and subsequent energy crash of many simple carbs

Promoting Recovery

• Eating Before and After Workouts

- Carbohydrates: complex (slow burning) carbs should be consumed 1-2 hours before a workout & within 1 hour of finishing a workout. Some simple carbs such as fruit or natural sweeteners (maple syrup, honey) can be beneficial during a long workout or immediately before a short race to give the body some added carbohydrates to use as fuel.
 - Protein: Should be consumed at every meal. It is also beneficial to add additional protein to snacks or in the form of protein powder if doing a high volume of training
 - Fats: Consuming fats with every meal helps make many micronutrients easier to absorb. By including fats in morning and afternoon snacks you ensure satiety as well as a decrease in blood sugar spikes and crashes.
- In addition to the appropriate timing of macronutrients (carbs, protein and fat) around workouts there are some other important things to keep in mind when it comes to recovering from a workout
1. **Hydration** - Proper hydration is important when it comes to recovering properly for many reasons
 - Hydration refers to more than just water but also the replenishment of electrolytes
 - Replenishing electrolytes is important for not only rebuilding muscle but also helping to avoid muscle cramps as well as maintaining mental clarity and focus
 - Dehydration causes the harder your heart has to work, resulting in a perceived higher exertion rate due to an elevated heart rate
 - The simplest way to check your hydration status is by looking at your pee - the more clear it is the more hydrated you are

Alternative to Gatorade ([link to website](#))

2. Avoiding White Sugar (and other highly processed foods)

- White sugar as well as processed foods create inflammation in the body. To recover from a race or workout the body tries to decrease inflammation, therefore consuming foods that increase inflammation is counterproductive to the body.

3. Supplements to Consider

- Magnesium: easily depleted in the presence of any kind of stress, whether physical or mental. It is essential for proper muscle function and helping to prevent cramping.
- Greens Powder: a great way to get a boost of micronutrients that can help increase energy and promote muscle recovery
- EFA Oil: essential fatty acids (also known as EFA's) are critical in reducing post exercise inflammation

Swim Meets

- Breakfast

- Racing in the morning session eat something that you know your body can easily digest
- Racing in the afternoon allows more time for digestion so a more substantial meal is a good option

- Lunch

- lunch can be tricky because it often is while you are at the meet
- if you are racing in a morning session having enough snacks on hand to get you to the end and then eating a substantial lunch afterwards is the best way to minimize digestive stress while ensuring you are able to get in all the nutrients your body needs

- Dinner

- If racing in finals having an early dinner is the best way to make sure your meal has had time to digest. Eating your meal early, before finals is often a better option than waiting until after finals is done as sometimes that can be too late
- Having a nutrient rich snack after finals is better than having a full meal as it will allow for a better sleep and not leave you feeling too full in the morning

	<u>Breakfast</u>	<u>Lunch</u>	<u>Dinner</u>	<u>Snacks</u>
<u>Meal Ideas</u>	<ul style="list-style-type: none">• Eggs (omelet, scrambled etc.)• Homemade Breakfast Sausages• Meat and Vegetables• Protein Muffins• Overnight Oats• Homemade Protein Bar• Hardboiled Egg• Smoothie	<ul style="list-style-type: none">• Salad with meat and homemade dressing• add starchy vegetables or rice for added carbs	<ul style="list-style-type: none">• Dinners with meat and vegetables as the base provide a good combination of protein & micronutrients• add a starchy vegetables or rice for added carbs	<ul style="list-style-type: none">• Homemade Protein Bars / Balls• Overnight Oats• Vegetables & Hummus• Fruit• Protein Muffin• Smoothie

80/20 Rule

- As with everything in life maintaining balance is crucial for both success as well as a positive mental attitude
- It's important to keep in mind that while eating healthy is important, especially for athletes there is always room for treats
- Thinking of it as an 80/20 rule is a way to ensure that healthy eating is a priority but isn't making you unable to have a bit of fun and enjoy the foods that you love.

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For more information and resources for athletes visit www.rachelmctier.com

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