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NUTRITION GUIDE FOR YOUNG SWIMMERS

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NUTRITION GUIDE FOR YOUNG SWIMMERS

Being a good athlete and swimmer starts with being healthy and eating correctly.

Our bodies are like a finely tuned engine that needs to be fueled with the right mix of nutrients for optimal performance. Right choices to get the best nutrition is important for swimmers at all levels.

There is no special food or meal that will help swimmers perform at peak ability. Rather, it is a complete, healthy diet that allows swimmers to perform at their best.

But what is the right nutrition? And how do you know what is good food or bad food? The truth is there is no easy answer to this and the solution will be different for every swimmer, but a good place to start is the basics.

Proper nutrition optimizes energy and strength levels and avoids the dreaded “post meet” crash. Recovery is faster and performance is greatly enhanced.

NUTRIENTS

The term nutrient describes a substance that provides nourishment essential for the growth and maintenance of life.

There are six categories of nutrients that we absorb from food to keep us alive, as the body does not have the ability to produce them on its own:

1. Macro nutrients:

A macro-nutrient is something the body requires in large quantities to provide all the energy needed to function. Macro-nutrients include: carbohydrates, proteins and fats;

Carbohydrates are the main fuel source for the athlete. Carbohydrates provide glucose and glycogen for energy before, during, and after training and competition and can be found in grains, fruits, vegetables, beans, milk, and yogurt. Carbohydrates are divided into 2 groups: complex and refined. A healthy, well-rounded sports diet emphasizes complex carbohydrates over the refined ones. Complex carbohydrates include 100 percent whole grains, dark-colored fruits and vegetables, and legumes, whereas refined carbohydrates include white flours, sugars, and sweets.

Protein is critical for building and repairing muscle tissue, strengthening the immune system, and maintaining energy levels. It's important to note that you don't need to overdo this. Protein is useful only when the athlete fuels with optimal amounts of carbohydrates. The richest sources of protein are animal products, including meat, poultry, fish, eggs, and dairy as well vegetable proteins: grains, beans, soy products, vegetables and sprouts. Protein is also available in smaller amounts in plant foods such as beans, grains, and vegetables.

Fats help the body absorb fat-soluble vitamins (vitamins A, D, E and K), provide protection for internal organs, help regulate energy supply, and aid in cellular repair as well as mental function. Athletes are encouraged to choose the healthier fats including nuts, seeds, olive oil, peanut/nut butter, avocados, fatty fish like salmon and tuna, organic and/or ghee butter, yoghurt and other dairy products.

Macronutrients



carbs



proteins



fats

It is important for any athlete to consume healthy protein foods, combined with smaller amounts of carbohydrates. Protein not only helps to build muscle, but it stabilizes our blood sugar, keeping energy and endurance steady. A carbohydrate will give an immediate rush, but within 30-60 minutes, the blood sugar will crash, resulting in a very fatigued body! It is incredibly important to incorporate good fats into the diet on a regular basis. Some examples are fish, fish oils, nuts, avocados, olive oil. These “plump” up our cells so that we can maintain a good vitamin/mineral balance and more importantly, protect against dehydration. Quick fats found in processed foods will actually slow the body down and prevent the body from working optimally during exercise.

2. Micro- Nutrients:

A micro-nutrient, is something the body requires in smaller amounts for maintaining health, growth and development of all body functions. While small in quantity, these are again essential for living a healthy active life. These micro-nutrients include vitamins and minerals.



* Fast foods have very little nutritional value and, in turn, will hinder performance in the pool. However, they can be part of a healthy sports diet as an occasional treat.

PERFORMANCE SWIMMING NUTRITION RULES

We know that nutrition plays a critical role in performance in the pool, just as important as your sleeping habits.

When looking to maximize your nutrition for performance, it is most important to think about how you can increase or enhance recovery from training. Recovery time is where your body heals and preps itself for the next event.

1. Fuel:

- Fuel 5-7 times a day: roughly 3 small meals and 2-4 mini power snacks
- Include a lean protein at each meal and snack
- Choose minimally processed carbohydrates
- Choose unsaturated fats

2. Hydrate:

Swimmers sweat, big-time, which means that it is important to have a water bottle at the end of the lane to drink throughout workouts.

Hydration improves performance. Hydrated muscles are like grapes, but dehydrated muscles are like raisins - dry, stiff, and shriveled. Shriveled muscles cannot react quickly and they can get stuck - or cramp - easily.

Water-rich foods are important to hydration. Consume fruits such as watermelon, apples, peaches, strawberries and oranges. Or vegetables such as carrots, cucumber, celery, and tomatoes.

- Hydrate every day for health (at least 5 cups of plain water daily).
- On training and competition days, drink 2 cups before exercise, 1 cup every hour of exercise, and at least 2-3 cups after. Try to minimize the fluids lost during exercise as dehydration hurts performance.

3. Warning signs for dehydration:

Any of the following are signs of dehydration and it is best to take some time out to rest and take in fluids:

- Dizziness and light-headedness
- Muscle cramps
- Nausea and headache (after competition or training you will know if you/your child has not drunk enough if any of these signs are noticed)
- Dark urine and infrequent urination
- Dry mouth and throat
- A feeling of extreme heat which remains after a cool down time.

4. Rest:

Be consistent. Young athletes need roughly 8.5-10 hours of quality sleep a night.

TRAINING AND COMPETITION DAYS

Swimmers need to be well-fueled, but should also allow adequate time for the previous meal to fully digest before competing, which varies from athlete to athlete. Some important points to keep in mind include the following:

- The night before a big sporting event requires extra effort to ensure sufficient carbohydrate is eaten and enough fluids have been consumed to ensure a good state of hydration. Thinking ahead and having foods pre-prepared will ease the pressure and help the family achieve a great performance all round. This is the time for carbohydrates, some protein foods and plenty of nourishing drinks.
- It is advised to eat a meal 2-4 hours prior to an athletic event and have a healthy, small snack 1-2 hours before the event. Always arm the child with small healthy snacks so they can quickly grab something of nutritional substance when hungry.
- The before training/competition meal should be high in carbohydrates and low in fat, fibre, and protein to minimize gastrointestinal distress, (especially swimmers, who exercise horizontally) consumed 2-4 hours before the event/training session. High-water content snacks will help with hydration. Carbohydrates will help maintain blood glucose levels.
- During practice hydration is a must. Encourage several generous sips each water break. An occasional small sip can satisfy the feeling of thirst without replacing all the fluid lost through sweating. This can result in a potentially dangerous condition called "voluntary dehydration".

Pre-workout meal (2-4 hours before): wholegrain pasta; peanut butter wholemeal sandwich; oats porridge; natural yoghurt with fruits; vegetables and starch with a source of protein.

Pre-workout snack (1-2 hours before): Fruit portion with nuts; crackers (wholemeal is best); energy bar; natural fruit juice, brown rice cakes with nut butter or cottage cheese. Swimmers tend to train very early in the morning and some don't even have time to eat a snack with a one hour gap before training. If that is the case opt to have a fruit portion like a banana by itself. Bananas are full of complex carbs and minerals such as potassium and fibre.

RECOVERY

Eat a small snack of carbs, protein, and fats within 30 minutes of the end of practice. Glucose and protein can concentrate in depleted cells immediately after exercise, but that drops off quickly. After that the food and drink gets used throughout the body, including being stored in fat cells. Muscles that can get what they need shortly after a workout build and repair. Hungry muscles breakdown instead – not only reducing muscle development but increasing cellular waste that causes slower recovery for more discomfort and less effective future workouts.

Post workout snack (0-2 hours after): Fruit portion with yoghurt, crackers (wholemeal is best) with cheese, wholemeal toast with peanut butter, mix of nuts and dried fruits, boiled eggs and veggie sticks, guacamole or hummus with raw vegetables; homemade popcorn.

Fluids: Drink 2 litres over several hours.

GENERAL TIPS FOR BETTER HEALTH

How you eat effects how you exercise:

Digestive health is a fundamental support for overall wellness. Optimal digestion starts in the mouth.

- Eat slowly, chewing food well. If food is not well chewed the stomach and small intestine has to do the work which delays absorption and energy waste.
- Limit the amount of drink at meals to just a few ounces of water or other drinks. Drinking too much liquid during a meal dilutes digestive enzymes. Try drinking beverages up to 10 minutes before meals and then wait around 40 minutes after meal to have liquids.
- There is strong evidence that probiotic foods improve digestion, immune defence and even metabolism in both adults and children. Many studies suggest that strenuous exercise can inhibit gastric emptying and interfere with gastrointestinal absorption. By increasing probiotic foods intake, it can improve the integrity of the gastrointestinal epithelial barrier and reduce the incidence of digestive symptoms like bloating or diarrhoea. Probiotic sources: natural yoghurt; kefir; kombucha drink; sauerkraut; sourdough bread and probiotic supplements.

Daily Choices:

Having a wide variety of foods is important for good health;

- Breakfast is the most important meal of the day, People who eat a healthy breakfast are more likely to maintain a healthy weight and be more productive;
- Eat around 3-5 portions of fruits and vegetables per day;
- Eat small, balanced meals every 3-4 hours to boost the body's best potential. It also helps to keep body sugar balanced throughout the day, improving concentration and avoiding mood swings;
- Drink plenty of water and keep well hydrated;
- Meal planning eliminates the need to rely on unhealthy last minutes choices, it also saves time and money. Be prepared for snack time when hunger strikes with something nourishing, it will keep the metabolism on track.

***Note: Individual nutrition requirements will be determined by training load, specific athlete needs, training goals, body composition goals, health and adjustment for growth in younger athletes. Contact a professional for individualized nutritional advice.**

FOODS TO AVOID PREVIOUS DAYS BEFORE AN EVENT:

- Heavy simple carbohydrate foods, such as large quantities of bread, pizza, pasta. Minimize consumption overall, but when eaten, choose rice based pastas, sprouted breads.
- Avoid sugary foods! Avoid High fructose corn syrup, corn syrup solids. Be aware of sugary drinks, such as soda, juice that is not 100% fruit.
- Avoid baked goods, such as cookies, cupcakes etc. These are not good snacks and they give a high rush of blood sugar and then bog the body down with digestion, which takes focus and energy away from winning the race!
- Chips are a very popular snack for kids because they are so readily available in vending machines, and snack bars. These provide virtually no nutrition to the body and affect endurance. Good replacements to chips are dried fruits, fruit chips, veggie chips.
- Many of the protein bars on the market are loaded with sugar and processed foods, some examples are cliff bars, power bars.

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<https://www.swimming.org.au/Home/Swimmer-HQ/Squad-Swimmers/Diet-and-Training.aspx>

https://www.sportsdietitians.com.au/wp-content/uploads/2015/04/SDA_Junior-Swimmer_Web.pdf

<https://www.sportsdietitians.com.au/factsheets/food-for-your-sport/food-for-your-sport-swimming/>

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