

TRAIN HARDER - SWIM FASTER

Your Nutritional Guide To Successful Training

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Food is your fuel, so what you eat will significantly affect your ability to train. If you've ever wondered how you are going to struggle through the next training set or endure a full day at school or work after a strenuous session then help may be at hand! Diet is essential to a swimmer's success and a well planned nutrition programme should be a fundamental element of any training regime. As you develop your swimming schedule don't forget to work on your diet as well.

DO YOU EVER FEEL TIRED DURING TRAINING ?

A major factor that may cause you to feel exhausted during training is the depletion of carbohydrate (glycogen) energy stores. When you train hard your body draws on energy from glycogen stores in the muscles and liver. These stores are small and will deplete to low levels during long, hard training sessions. The symptoms? Swimmers may find that they feel tired and weak, legs and arms start to feel wobbly and if you have been working really hard you may find yourself slowing down.

The key is to start every day with fully stocked energy stores to avoid running out of steam halfway through the day or in the middle of a workout. Remember, successive days of training will drain these stores even if a one off session does not so it is essential to pay attention to what you are eating.

To boost energy levels between training sessions and to ensure that glycogen stores are topped up, swimmers should tuck into a carbohydrate rich diet since the amount of glycogen that is stored is related to how much carbohydrate you eat. Scientists recommend that about 60% of our calories should come from carbohydrate with the rest of our energy from protein (15%) and fat (25%). Most swimmers eat far less carbohydrate than this recommendation and as a result their diets are usually higher in fat as well.

To achieve a carbohydrate rich diet focus on meals and snacks that contain plenty of this nutrient. Carbohydrate as sugars (simple carbohydrate) and starches (complex carbohydrate) is found in a large number of foods. It is important that your diet contains a *wide variety* of these foods to ensure that you obtain all the vitamins and minerals that you need plus the fibre that comes from foods such as rice, bread, pasta, cereals, vegetables and fruits.

Use the list below (Table 1) for meal ideas.

Table 1: 'ENERGY BOOSTERS' (for carbohydrate)

- * Bread/rolls/pitta bread/french stick
- * Rice and pasta
- * Noodles
- * Pizza (with thick base)
- * Potatoes (limit chips/roast potatoes and eat plenty of jacket/mashed and boiled varieties)
- * Potato cakes
- * Beans/peas/lentils
- * Sweetcorn and root vegetables
- * Couscous/polenta and other grains
- * Sweet potatoes/yams/cassava
- * Breakfast cereals
- * Oats/porridge
- * Fresh/tinned fruits
- * Low fat yogurts
- * Low fat milk puddings (e.g. rice pudding/custard/semolina)

NB You should also eat plenty of vegetables although these are generally low in carbohydrate.

If you think that you are already eating a high carbohydrate diet ask yourself whether you really fill up with the foods from the list above or whether you eat a tiny portion of these foods and cram yourself full with lots of fatty meat or creamy, oily sauces instead! The idea is to keep your fat intake relatively low so *boost carbohydrate intake and not fat.*

IS CARBOHYDRATE REALLY THAT IMPORTANT ?

Yes! The ability to recover between training sessions is reduced on a low carbohydrate diet, as is the quantity and quality of your training.

WHAT ABOUT SNACKS?

Snacking is an important part of a swimmer's nutrition programme and will help to restore energy levels quickly. Variety is the key to successful snacking and these snacks should not replace balanced meals. Alternate your favourite biscuits/cake/chocolate or crisp snack with other choices to ensure that you maintain a healthy sports diet. A snack before training often helps to provide extra energy for that session. Table 2 below details some new ideas for snack choices. Be adventurous and never turn down the opportunity to try something new!

Table : 2 HAVE YOU EVER TRIED THESE SNACKS?

- * Toast/breakfast cereals
- * Crumpets/muffins/bagels
- * Tea-cakes/scones/current buns
- * Scotch pancakes/malt loaf/
- * Fresh fruit
- * Dried fruit (raisins/currents/dried apricots/banana chips/dates etc)
- * Bread sticks/rice cakes
- * Pop Tarts/Rusks
- * Commercial Energy Bars
- * Popcorn/Twiglets
- * Banana/jam/honey/chocolate spread sandwiches
- * Low fat milkshakes/flavoured milk
- * Lower fat biscuits (Garribaldi/Fig Rolls/Jaffa Cakes)

If you are becoming really worn out between sessions then top your carbohydrate levels up with an extra boost from jams/honey/confectionery/cakes/biscuits/sports drinks and soft drinks. But for cake and biscuit fanatics its time to change . Concentrate on the foods listed in Table 2 and where necessary add additional carbohydrate from less bulky sources of carbohydrate such as confectionery, cakes and biscuits and not the other way around!

WHEN TO EAT?

Avoid eating all your carbohydrate in one huge meal each day ! This is not the best way to refuel. Spread meals out. Muscle glycogen is restocked quickly if carbohydrate is consumed immediately after exercise. As a general guide 50g of carbohydrate will cover the needs of most swimmers of adult body weight during this time. Younger swimmers will typically require smaller portions. If you cannot eat at this time then drink fluid instead. Sports drinks, cordial/squash and diluted fruit juices are ideal since they provide essential fluid and fuel without the bulk associated with food. Continue to refuel later by consuming a nutritious meal or snack.

Table 3 : Approximately 50g of carbohydrate from:

- * 3/4 litre of an isotonic type of sports drink.
- * 600mls (just over a pint) unsweetened orange juice
- * 1 litre of cordial made with 80mls Ribena.
- * 3 Bananas
- * 3 large pears
- * 3 tablespoons (75g) raisins
- * 12 'ready to eat' apricots
- * 1 large bagel
- * 2 scones/current buns
- * 3 Scotch pancakes
- * 3 Rusks
- * 1 Maxim Energy Bar

