DON'T FORGET YOUR FAT, PROTEIN VITAMINS AND MINERALS!

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Whilst you focus on your intake of carbohydrate its important to remember that a well balanced diet will also contain a mixture of protein, fat, vitamins and minerals as well.

In this leaflet we will explore ways to ensure that you get the balance right.

FAT FACTS

The word fat conjures up images of badness, unhealthiness, obesity and illness in the minds of many people. Indeed, it has been well established that a high fat diet can lead to weight problems, obesity and other associated illness such as high blood pressure and diabetes . The consumption of excess fat may contribute to chronic diseases such as heart disease and certain cancers. Facts such as these have encouraged people to eat less fatty foods. However a small amount of dietary fat is also important.

Fat provides a concentrated source of energy which is used during certain types of swim training . One gram of fat provides 9 calories compared to 4 calories per gram from protein and carbohydrate. Fat also provides a protective layer around internal organs and plays an important role in the insulation of the body. So, contrary to popular belief fat is an important nutrient

Although fat provides a swimmer with energy when training at lower intensities (i.e. steady state aerobic sets) there is no need to 'fat load' in anticipation for a long, hard work-out! Before you tuck into a pasty and chips or a large fry up as a pre-training meal remember that your body stores huge quantities of fat. Even a lean swimmer may store many thousands of calories of fat . The fact is that you are not going to run out of fat during training. So there is little reason for munching your way through hundreds of fat calories as part of your nutrition plan.

HOW MUCH FAT SHOULD SWIMMERS EAT?

Scientists recommend that athletes should consume no more than 30% of their daily calories from fat. This is to accommodate the extra requirement for carbohydrate due to an individual's increased training load.

For many swimmers this represents a decrease in their current fat intake. Investigations by the author have revealed that many swimmers' diets are typically higher in fat than these recommendations.

WHICH FOODS CONTAIN FAT ?

Common favourites amongst swimmers are chips, roast potatoes, pies, pasties, sausage rolls, fatty meat, creamy/oily sauces, fried foods, and some snacks. All these foods are relatively high in fat and if eaten in large quantities may contribute to a high fat diet.

It is tempting to 'top up' your high carbohydrate meal with extra fat. It is all too easy to smother bread with butter, laden pasta with cream sauce and cover jacket potatoes with mayonnaise. How many of you indulge in crumpets, toast and bagels drowning in melting butter?

The key to achieving a moderate intake of fat is to check that the majority of your meals and snacks do not contain large quantities of fat. This does not mean that all the food you eat should be very low fat but rather, that, over the period of a day your total fat intake is not excessive. Practically this means that the occasional weekly indulgence in curry sauce and chips, kebabs or fried breakfast will not do you any harm!

HOW DO I REDUCE MY FAT INTAKE?

If you have established that you focus on fatty fare rather than carbohydrate rich goodies then follow one or more of the guide-lines in Table 1 below to bring your diet in line with the current recommendations.

Table 1: TIPS TO REDUCE FAT INTAKE

* **Make the carbohydrate rich food the main food on the plate (rice, bread, pasta. cereals, potatoes) together with fruits and vegetables. This will automatically keep your fat intake down.**
* **Choose lean cuts of meat (including red meat which can be low in fat like chicken & turkey)**
* **Cook with small quantities of oil or bake, grill, micro-wave, steam, casserole, poach or BBQ food.**
* **Use reduced fat alternatives such as low fat milk, cheese and yogurts.**
* **Spread butter, margarine or a low fat spread thinly.**
* **Vary your snacks to include some low fat alternatives (ref Leaflet x Tablex)**
* **Eat baked, mashed and boiled potatoes more often than chips, crisps and roast ones.**

IS A NO FAT DIET RECOMMENDED?

Most definitely not! Despite recent trends in the dieting industry to cut back drastically on fat intake and to aim to achieve a very low dietary intake of fat (sometimes as low as 5-10% of energy) this practice may actually be harmful.

Whilst a low-moderate fat diet is desirable for both health and performance reasons a small amount of dietary fat is essential for health.

PROTEIN FACTS

The body requires protein, or more precisely amino acids (the building blocks of protein) for the growth and maintenance of new tissues such as muscle, blood cells and skin. Contrary to popular belief, tucking into huge quantities of protein will not magically build huge muscles! To expand those muscles you must combine a lot of hard training (particularly weight training) with a well balanced, high carbohydrate diet.

Although swimmers have elevated protein requirements compared to non-active individuals this increase is almost always covered by a 'normal' food intake - even if you are a vegetarian. If a swimmer is eating enough food to cover his/her energy needs than they will probably be consuming enough protein as well. Remember that the carbohydrate rich cereals and grains are also useful sources of protein. Include a mixture of foods from Table 2 below to ensure that you are stocked up.

Table 2 : DIETARY SOURCES OF PROTEIN

ANIMAL	VEGETABLE
Meat	Pulses (peas/beans/lentils)
Fish	Nuts
Poultry	Bread/pasta/rice
Eggs	Breakfast & other cereals
Cheese	Tofu/TVP mince
Milk & Yogurts	Quorn
	Soya products

WHAT ABOUT VEGETARIANS?

The foods in the vegetable column tend to lack one or more of the essential amino acids (conversely animal proteins contain these amino acids in the correct ratio) so the key is to consume a variety of different sources of protein over a day to avoid a shortfall. Several top swimmers are vegetarian. These individuals have a high energy intake and as a result will be routinely ingesting more food and therefore more protein.