

NUTRITIONAL VALUES

Any athlete seeking success in sport should be aware of the importance of nutrition to performance in both training and competition. A well-balanced, nutritious diet is essential for maximum performance in any sporting activity.

The ideal training diet should be high in carbohydrate (60% of total daily calorie intake), low in fat (<25%) and contain moderate amounts of protein (15%). No one food contains all the nutrients we need, so in order to obtain a balanced diet it is necessary to eat a variety of foods from the six main food groups, listed below:

- **Group 1: Cereals, pasta, rice, bread, potatoes.**
- **Group 2: Fruit**
- **Group 3: Vegetables**
- **Group 4: Meat, fish, poultry, beans, pulses, nuts, eggs.**
- **Group 5: Dairy products.**
- **Group 6: Fats, oils, sweets.**

To achieve the correct balance of nutrients, imagine that you are building a pyramid from these food groups. Group 1, the cereal and starches, forms the basis of the pyramid and so you need to eat most of your daily food from this group. Pasta, rice, potatoes, Bread and cereals should form the centre of each meal. Not only are these foods high in carbohydrate, but are also a good source of protein, vitamins, minerals and fibre, especially the whole grain varieties. Groups 2 & 3, fruit and vegetables, form the next layer of the pyramid.

A wide variety of fresh fruit, vegetables and their juices should be consumed daily. Bananas, apples and dried fruit make great portable snacks to take to a training session and are a valuable source of carbohydrate energy for exercise. Groups 4 & 5, meat, other protein foods and dairy products, should be eaten in smaller amounts. Choose lean cuts if meat and use low fat dairy products such as semi-skimmed milk and reduced fat spreads. Vegetarians will need to combine other protein rich foods in the right amounts to ensure that they are getting enough high quality protein in their diet.

Nutrition before, during and after exercise.

What you eat before, during and after exercise will affect how well you perform both in training and competition, and how quickly you recover in time for the next training session.

Carbohydrate stored as glycogen in your liver and muscles is the main fuel for energy during exercise. If you start your training session with low glycogen stores you will find the exercise harder, you will tire more quickly and your performance will suffer. Therefore it is important to start each training session with full glycogen stores. It is a good idea to consume a carbohydrate snack or drink an hour before training, particularly if you are facing a long, hard session. For early morning starts, many swimmers find a carbohydrate drink a more convenience choice than solid food.

The following are suitable pre-training snacks. Which are quickly and easily digested: Bananas; Sandwich or bagel with jam or honey; small bowl of cereal with low fat milk; 3oz of raisins; crackers, crisp breads; oat cakes, rice-cakes, fig bars, small piece of malt loaf; carbohydrate drink

Following exercise, the refuelling process should start as soon as possible so that the glycogen stores will be replenished in time for the next training session. Glycogen is manufactured much faster in the two hours after exercise and so it is important to consume a high carbohydrate snack or drink as soon as you feel able to.

For those who train early in the morning and often skip breakfast because you are late for school, why not take your breakfast with you? Muffins or bagels are great to munch on the way washed down with a small carton of fruit juice. Even some cereals taste just as good without milk, eaten straight from the packet.

Competition Nutrition

In the week leading up to a competition you want to make sure that your energy stores (glycogen) are full. This will ensure you of the energy needed to perform at your best.

What to eat before competition – Pre-event foods

Research has shown that eating a high carbohydrate meal 3-4 hours before competing improves performance by maintaining blood glucose levels in the latter stages of competition and so delaying fatigue. If you have an early morning competition you will need to make sure you eat a good high carbohydrate meal the night before and have a light breakfast, for example a bowl of cereal with low fat milk, about 1-2 hours before competing.

What to eat during competition.

If you are competing in a number of heats or events over a day it will be important to replenish used energy during this time. Consume small carbohydrate snacks or use a carbohydrate drink between events to top up your energy levels and prevent fatigue in the later stages of competition. Also, ensure that you keep well hydrated throughout the day by consuming plenty of fluid. Some suitable carbohydrate snacks are:

Bananas; filled rolls or sandwiches; dried fruit (raisins, apricot); crackers or crisp bread with jam or honey; oat cakes, rice-cakes, fig bars; malt loaf; carbohydrate drink or diluted fruit juice; low fat cereal or energy bars.

What to eat after competition – Recovery foods.

After you have finished competing, don't neglect your nutrition or fluid needs even if you are too tired to think about eating or just want to rush off and celebrate with a McDonalds burger & milkshake! Follow the same guidelines as you would after training; replace all fluid losses by consuming plenty of water and have a small carbohydrate snack to replenish some of the used energy. Then you can treat yourself- but don't go overboard, especially if you will be training again the next day. Good Luck!

DRINKS

Dehydration

During training & Gala's It's important to take on board fluids at regular intervals to prevent dehydration. If you are suffering from dehydration vital organs such as the kidneys, brain & heart can't function as they require a certain minimum of salt & water.

Symptoms

Dizziness Fatigue Poor co-ordination

What to Drink

Make your own 100ml of squash , One litre of water , Pinch of salt mix & chill