

## **Nutrition Notes**

Nutrition notes is a new addition to the SINI Newsletter and plans to cover topics on how nutrition plays an essential part of any athlete's preparation for training and competition.

To get started, this article outlines what sports nutrition is all about.

### **What is sports nutrition about?**

Nutrition is the science of how the body gets and uses nutrients from food and fluid for growth, repair and maintenance of activities in the body. Nutrition for sport is about providing appropriate energy (calories), nutrients and fluid to support the demands of training and competition. The nutritional needs of training and competition vary from sport to sport and between athletes in the same sport.

Today's top athletes train 6 or even 7 days a week and it is crucial that they fuel up and refuel well to support good quality training, and ultimately good performance in competition.

### **What does a Sports Dietitian do?**

Accredited Sports Dietitians – who are Registered Dietitians with further qualification to translate their skills into the sporting arena – convert the science of nutrition, based on research evidence, into foods and fluids to be taken in the appropriate amounts and at the right times to allow hard training and good recovery. To do this we work with athletes, coaches, High Performance Managers, Sports Scientists, Strength and Conditioning coaches and Physiotherapists to make sure our piece of the jigsaw supports improved performance.

Our work aims to:

- Give suitable dietary advice, taking into account the athlete's individual requirements and circumstances including age, type of sport and level of sport
- Monitor any weight changes along with body composition (ie fat and muscle) changes
- Advise on and monitor hydration, which can make a vital difference to an athlete's performance
- Give guidance on the suitable use of nutritional supplements
- Help plan dietary strategies while travelling abroad

Education can be done in different ways and we use a combination of approaches to get our messages across. These can include squad sessions covering core information, individual athlete assessment, practical sessions such as supermarket visits and hydration monitoring and coach education.

### **Does what you eat and drink have a real effect on performance?**

Yes it does – food is fuel. The primary concern for any athlete is **energy or calories** but what the calories are made up of is also important.

Particular attention should be given to **carbohydrate foods** – for example breads, pasta, rice, potatoes, cereals, fruit – as carbohydrate, or glycogen which is what it is stored as in the muscles and liver, is a major fuel provider during exercise. A high concentration of muscle glycogen will allow athletes to train hard and get the best training effect. Low glycogen stores is one reason for fatigue or tiredness during hard training, which will impair performance. Sufficient carbohydrate between training sessions will speed up recovery, so the timing of food intake is important.

Athletes need more **protein** than inactive people – for example meat, chicken, fish, dairy products – mainly to allow for muscle conditioning or building in order to increase strength and power. This is particularly important for athletes who do weight training as a major part of their training programme. Good food choices will provide adequate protein for most athletes.

**Good hydration** – enough fluids – is a must for all athletes as any degree of dehydration can impair performance. Training and competing causes sweating – the body's way to keep cool – and fluids are needed to allow this to happen. Insufficient fluids mean that the body overheats and will have to slow down. The hotter the weather, the more you sweat and the more fluids you need. But even in our climate, sweat losses can be high when exercise is of high intensity.

### **How are nutritional needs of athletes assessed?**

Each athlete and each sport will have its own nutritional requirements – from how to achieve large intakes of carbohydrate to fuel endurance sports to helping weight category sports make weight prior to competition.

Nutrition requirements are assessed according to the demands of the sport (frequency and duration of training, competitive schedule), the need to maintain weight, lose body fat or gain lean mass or both. Dietary goals are set for carbohydrate, protein, fat and fluid intake, and ensuring they are getting sufficient vitamins and minerals from the variety of foods eaten.

It's a case of getting to know the athletes and devising strategies to suit them.

### **How can you contact an Accredited Sports Dietitian?**

Accredited Sports Dietitians work with the core sports at SINI and are available to work with National Governing Bodies of all sports not currently in this programme. They can be contacted through the SINI office or the Sports Council Northern Ireland.

*Every athlete is looking to improve their performance by whatever margin, and that could be achieved by improving their hydration, having better glycogen stores, or changing their body composition. Nutrition has an important part to play in keeping athletes healthy and preventing fatigue and illness associated with poor recovery and under-fuelling.*

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