NUTRITION 1

NUTRITION GUIDELINES FOR GOOD TO GREAT SPORTS STUDENTS

CALORIES ARE KING

- Calories in all foods are used by your body for energy to fuel exercise
- The first step to building a good diet plan is to **meet your body's energy demands**
- As an athlete increases their training schedule, their energy demands will increase to fuel them.

An athlete is said to be in **energy balance** when energy intake **matches** energy expenditure. During a regular season, the majority of athletes may wish to be in energy balance. This will allow you to fuel your training, maintain your immune system, and recover properly.

Here, energy intake is **greater than** energy expenditure. This is termed **positive energy balance** and will cause an **increase in bodyweight**, as the excess energy is stored. This might be a useful strategy is your sport requires you to gain weight, such as being a rugby player, but this might slow you down if you are a long-distance runner.

When energy expenditure **exceeds** energy intake, athletes will find themselves in **negative energy balance**. By definition, this occurs when a diet does not adequately meet the needs of training. As a result, **immune function can be compromised, recovery will be slower, and body mass will decrease**.

TIP

Manipulating the balance between energy intake and energy expenditure causes changes in body weight. You may want to use this to your advantage to reach your goals.

THE MASTER FUEL

- A combination of carbohydrates and fats are burnt by your body as fuel for day-to-day activities
- As exercise intensity increases, so too does your body's reliance on carbohydrates for fuel.

ARE CARBOHYDRATES BAD?

Despite what celebrities and health 'gurus' might lead you to believe, carbs are't the enemy. Sugars are often linked to health problems in inactive people, but when eaten as part of a balanced diet **combined with exercise**, carbohydrates are vital for good health and performance.

Complex Carbs

Complex carbohydrates consist of foods such as potatoes, porridge, wholemeal breads, beans, lentils and rice.

OR

Simple Carbs

Simple carbohydrates are a group of foods such as honey, fruit juices, jam, fruit cake, fruit, and sports drinks.

Complex carbohydrates provide slow release fuel for general activities and skills training. Whereas simple carbohydrates give instant energy for intense fitness sessions and match days.

Research shows that consuming around 60g per hour of glucose (or, roughly, one handful of jelly babies) can increase performance when exercising for over two hours.

TIP

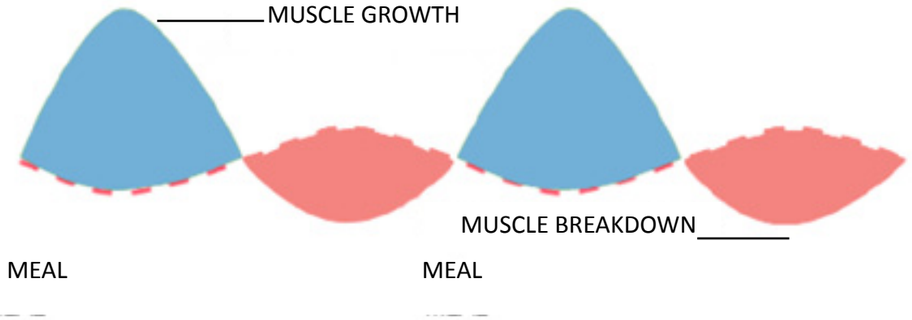
Use simple carbohydrates only during high intensity, long duration exercise. These may just contribute to unwanted calories, putting you into a positive energy balance.

FOOD FOR GROWTH

- Foods rich in protein help your body repair, adapt, and grow.
- Between 10 – 20 % of your daily energy intake should be from protein.
- Endurance athletes typically need less protein per day – perhaps 10-15 % of daily energy intake.
- Strength-based athletes need more protein per day – aim for 15 – 20 % of daily energy intake.

Focus on High Quality Protein Sources

Quality sources of protein include beef, pork, chicken, turkey, fish, eggs, milk, greek yoghurt and cottage cheese.



Spread Protein Throughout the Day

- Regularly consuming protein throughout the day is the best way to maximize muscle growth and repair.
- Roughly 20g of high quality protein is all you need at each serving (every three hours) in order to do this. That's the same as three eggs, a pint of milk, or a piece of meat the size of your palm.

FIT FATS IN

- For light to moderate exercise, your body relies on burning fat.
- Fats are the precursor to many hormones that help your body recover and adapt.
- Mono- and polyunsaturated fats, such as those found in fish and nuts, play important roles in reducing inflammation, supporting the immune system, and optimising brain function, which are all key to sporting performance.

Type of Fat	Examples
Saturated	Fried foods, butter, cheese, animal fat
Monounsaturated	Almonds, avocados, cashews, olive oil, peanut butter
Polyunsaturated	Walnuts, sunflower seeds, salmon, tuna, mackerel, rapeseed oil

Should I eat Saturated fats?

Saturated fats may have links to health complications in inactive populations, but with regular exercise and a balanced diet, there is no need to worry. If you have the choice, substituting saturated fats for unsaturated fats will provide greater health benefits.

TIPS

- **Try to include fats in your everyday diet.**
- **Aim for 30 % of your daily energy intake from fats.**
- **Unlike carbohydrates, there is no need to stock up on fats before exercise as your body contains its own stores. In fact, eating fats might only slow down the absorption of other things during exercise, such as water and carbohydrates.**

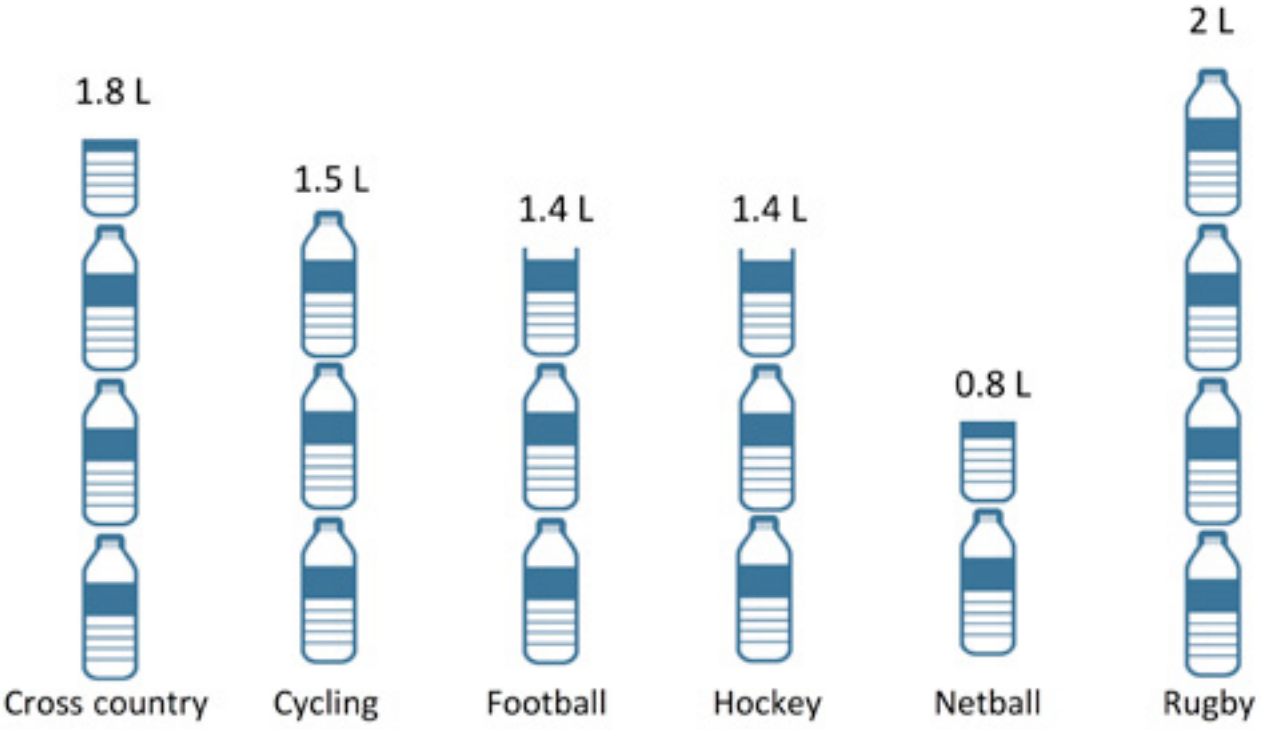
HYDRATION - NUTRITION

FLUIDS AND HYDRATION

- Staying hydrated is one of the most important concerns for an athlete during exercise.
- To maintain a stable body temperature during exercise, the body produces sweat to lose heat.

How Much do we Sweat?

Below shows the typical sweat losses in litres per hour of five sports, according to the American College of Sports Medicine. This may vary between individuals and different environmental condition.



Losing 2% of your body weight through sweat is enough to significantly impair performance. For a 70kg athlete, playing football for one hour could lead to dehydration, impairing performance and concentration.

How do I Know if I'm Dehydrated?

- Short term loss in body weight, feeling thirsty, and yellow urine can all indicate dehydration.
- The more of these that you notice, the higher the chance you are dehydrated.

TIP

Try keeping a bottle of drink available when exercising and aim to drink at regular intervals, such as every 15-20 minutes. Practice different drinking strategies and learn what works best for your body.