

Sport Nutrition

Nutrition is important for general health and wellbeing, and whatever you do, whether sitting in a chair or running 5 miles, your body requires energy. Exercise increases the rate at which your body uses up energy, so it is important that you have a balanced diet providing enough energy and nutrients.

Carbohydrate

- High in foods such as bread or bread products, breakfast cereals, rice, pasta, couscous, noodles, potato, beans, peas, root vegetables, and sugary foods.
- These foods are broken down into a simple sugar called glucose. Glucose is then converted into glycogen by the liver and stored in the liver and skeletal muscles
- Liver and muscle stores are limited, prolonged activity can lead to a reduction of this fuel.

Therefore, for people who are physically active a good intake of carbohydrate is important

Requirements vary depending on type and duration of exercise. For the physically active approximately 55 – 60 % of energy should come from carbohydrates. As a general guide half your plate should consist of high carbohydrate foods:

Protein

- Protein is an essential nutrient used to build and repair the body's tissues. It is found mainly in skeletal muscle.
- Good dietary sources of protein include milk and dairy products, eggs, meat and poultry, fish, pulses and lentils
- Having large amounts of extra protein does not result in increased muscle size or strength. Although training slightly increases protein needs, most people can get enough protein through a healthy, balanced diet without taking extra protein supplements or large amounts of high protein foods
- Protein foods should make up 15 – 20 % of your diet, or between 100-200g per day.

Fluid

- Sweating results in the loss of body fluid which, if not replaced, can lead to sub-optimal performance.
- A 1% drop in fluid in the body can cause a 20% reduction in performance
- the colour of your urine is a good indicator of your hydration level. You should aim for straw coloured urine, dark yellow urine indicates dehydration
- if you exercise for up to one hour, water is fine to drink, any longer than this and a sports drink could be beneficial. Try to drink 300-500mls before exercise, 200mls every 15 minutes during exercise and at least 500mls after exercise.

Example high carbohydrate meals & snacks

Baked potato (1 med) + baked beans & mushrooms = 30 g carb

Spaghetti or baked beans (1 cup) + 2 slices toast = 55 g carb

Ham & salad roll + fresh fruit = 50 g carb

Steamed rice (1.5 cup) + stir-fried vegetables = 85 g carb

200mL low fat yogurt + 1 Tbspn dried fruit = 35g carb

Fruit smoothie (200 mL low-fat milk + banana) = 37 g carb

Breakfast cereal (1 cup) + 150 mL low-fat milk + tinned peach(1 whole) = 40 g carb
Raisin bread (2 slices) + ricotta cheese + jam = 45 g carb
Breakfast cereal (2 cups) + 200 mL low-fat milk + tinned fruit(1/2 cup) = 70 g carb
Toast (2 slices) with honey, jam or marmalade + fruit juice (1glass) = 70 g carb

Increasing Muscle Mass

The most effective way of refueling, building and repairing muscles after exercise is by having a snack containing carbohydrate and protein e.g. fruit and yoghurt or a chicken sandwich, within 30 minutes of finishing exercising.

- Increase daily energy intake by increasing meal/snack frequency and making use of energy-rich drinks/snacks
- Moderate intake of higher fibre, filling foods
- The meal plan should be based on nutritious carbohydrate-rich foods, and include a small serve of protein-rich food/fluid at each meal/snack to optimise training responses, especially before and after training
- Get organised - plan food and fluids throughout the day to make sure suitable choices are always available
- To increase muscle mass, a muscle building phase should be incorporated into the yearly training program, emphasising resistance training sessions and limiting additional fitness/conditioning sessions
- Only after training and diet have been optimised should you consider a sports supplement. The professional support of a sports dietitian can help you determine the best supplement for you.
- Set realistic goals and monitor progress regularly. To see how good your training program is, assess your body mass and composition.
- Commitment and perseverance. Developing optimal levels of strength and muscle mass for your sport may take years, especially if you don't have the luxury of a prolonged off-season each year.

Muscle Building Pre and Post Training Snack Ideas

- Tub of yoghurt & fruit
- Bowl of cereal & milk
- Sandwich with lean ham & salad
- Low fat instant noodles, pasta sauce & 'light' cheese
- Home made low-fat smoothie
- Fruit muffin & glass of milk
- Breakfast/cereal bar & liquid meal supplement

Each snack provides at least 6 grams of protein and 35 grams of carbohydrate which recent research indicates is enough to promote protein building during exercise.

We have details of 2 gyms in the London area that provide services for people affected by HIV.

This information was provided by the Dietetics team of the HIV/GU Medicine Directorate of the Chelsea and Westminster Hospital. For more information please call 020 8746 8178.

Updated November 2006