Nutrition for sport and exercise

We’ve put together these simple tips to help you eat well for sport and exercise.
Whether you’re doing a casual workout or training for a major sporting event, what you eat and drink is really important. The right nutrition will provide energy to fuel your body during exercise, reduce your risk of injury and illness, and help you to recover afterwards.

We’ve put together some general tips to help you perform at your best and achieve your goals. If you’re training regularly for a specific event, speak to a dietitian for advice that’s personalised for you.

**Food for energy**

To help you get the most from exercise, it’s important to eat a healthy balance of foods rich in nutrients. This includes carbohydrates, protein, healthy fats, fruit and vegetables, and fluids.
Carbohydrates

Carbohydrates are your body's main source of energy. Whatever activity you're doing, carbohydrates play an important role in helping you perform at your best. They help to regulate your blood glucose (sugar) level. During digestion, carbohydrates are broken down into individual units of sugar (glucose). These sugar units are then used by your muscles to provide energy for movement. Your body can store a limited amount of carbohydrate as glycogen in your muscles and liver. This provides an available source of carbohydrate ready for the next time your muscles need sugar to release energy for movement.

The exact amount of carbohydrate you need to eat will depend on how much energy you need every day, and is unique to you. This takes into account what type of activity you're doing, whether you're a man or a woman, your age, and environmental factors like the temperature. Generally, the harder you train, the more carbohydrates you need.

Aim to include starchy carbohydrates with every meal. These could include:
- wholemeal bread
- brown rice and pasta
- potatoes
- wholegrain cereals and porridge
- couscous and noodles

It's a common misconception that carbohydrates are fattening, but as with all nutrients it's important to eat the right types in moderation. If you're doing a lot of exercise, carbohydrates are essential for energy. If you don't eat enough carbohydrates, your body may use the protein you eat for energy instead of for building and repairing your muscles.

Lack of carbohydrate could also have a negative effect on your performance and might cause:
- low energy levels
- early tiredness
- reduced concentration
- delayed muscle recovery

Top tips
- Keep your energy levels topped up by having a low-fat, high-carbohydrate meal or snack two to three hours before you exercise.
- Replenish your glycogen stores after exercise by eating a snack or meal that contains carbohydrate within 30 minutes of finishing your workout.

Protein

Protein is essential for the growth and repair of your muscles. Eating enough protein will help your body to recover properly after exercise. The exact amount of protein your body needs will depend on the type of activities you do. As with all nutrients, the more exercise you do, the more protein your body is likely to need.

Here are some sources of protein that you could include in your meals and snacks throughout the day.

**Sources of protein**

- Lean meat and poultry such as chicken
- Fish such as salmon and tuna
- Eggs
- Low-fat dairy products such as milk and yoghurt
- Dairy alternatives such as soya mince or tofu
- Pulses such as beans and lentils
- Nuts (unsalted are best)

It's important to remember that the exact amount of energy your body needs is unique to you. If you eat a healthy diet, this should provide enough protein to meet your needs when you exercise. But if you're doing a lot of exercise or are training for a specific event, you might need more of some nutrients. Speak to a dietitian to make sure you're getting everything your body needs.

**Top tips**
- Try to eat two to three portions of high-quality, low-fat protein throughout the day.
- If you're exercising a lot and really pushing your body, have protein alongside some carbohydrate, 30 minutes to two hours after a workout. This will help recovery.

Protein supplements

There are lots of products and supplements available such as shakes, powders and bars that contain added protein. But you can usually get the protein your body needs by eating a healthy, balanced diet that includes a variety of protein-rich foods. Taking extra protein supplements isn't necessary for most people and won't help you to grow bigger muscles. But protein supplements can be useful when you're short on time or don't have an appetite straight after exercising. They can provide you with the nutrients your body needs to recover when you don't have access to food to make a meal.

**Top tips**
- Try to eat two to three portions of high-quality, low-fat protein throughout the day.
- If you're exercising a lot and really pushing your body, have protein alongside some carbohydrate, 30 minutes to two hours after a workout. This will help recovery.
Healthy fats
Fat is an important part of a healthy diet. Fats are a valuable source of energy and provide you with vitamins such as A, D, E and K. They also contain essential fatty acids, which your body isn’t able to make for itself. As with all foods, eating too much can cause you to gain weight. So, it’s important to eat the right types of healthy, unsaturated fats in moderation.

Top tips
- Aim to eat less saturated fat. Saturated fats can increase your level of bad LDL cholesterol which is harmful to your health. They’re found in takeaway foods, cakes, biscuits, dairy products like butter and fatty meat products such as red meat and sausages.
- Opt for unsaturated fats wherever possible because these are healthier choices. Unsaturated fats may be monounsaturated or polyunsaturated.
- Foods high in monounsaturated fats include avocados, olive oil and nuts such as cashews and almonds.
- Food high in polyunsaturated fats include oily fish such as salmon, mackerel and sardines, as well as nuts and seeds like pumpkin seeds. Polyunsaturated fats contain essential fatty acids such as omega 3, which can increase your level of good HDL cholesterol and are good for your heart health.

Fruit and vegetables
Fruit and vegetables are packed with vitamins and minerals that are important for:
- building and repairing your muscles after exercise
- energy production
- making haemoglobin—this is the substance in your red blood cells that carries oxygen around your body
- maintaining bone health
- keeping your immune system working well

Top tips
- Try to eat at least five different portions of fruit and vegetables every day.
- A portion of fruit or vegetable is roughly 80 grams. For example, one banana, two plums, a handful of grapes, a dessert bowl of salad or three heaped tablespoons of vegetables.
- Fresh, frozen, tinned and dried varieties, fruit juice, smoothies and pulses all count towards your daily intake of fruit and vegetables. But be sure to limit dried fruit to one heaped tablespoon (30g) and eat these with a meal. This is to reduce the impact of the high sugar content of dried fruit on your teeth. Also, limit fruit juice and smoothies to one small (150ml) glass per day.
- Aim to eat a colourful variety of seasonal produce. Whether they’re green, yellow or red, each colour group contains a different combination of vitamins and minerals, so be sure to try them all.
Vitamin and mineral supplements
Taking vitamin and mineral supplements isn’t usually necessary unless you have specific medical or nutritional needs. For example, you might be cutting out a certain food group from your diet, or you might be pregnant, or over 65. If you don’t have such specific needs, you should be able to get all the vitamins and minerals your body needs through a healthy, balanced diet. Even if you’re doing a lot of exercise, a balanced diet that includes plenty of fruit and vegetables should supply all your needs. If you have any questions about your personal needs, speak to a dietitian for more information.

Fluids
Around 60 per cent of your body is made up of water and that is essential for your body to function properly. When you exercise, you can lose a lot of water through sweating. So, it’s important to be well hydrated before, during and after you exercise.

Drinking enough fluids during exercise can help to:
- keep your energy levels up
- regulate your temperature
- keep your focus and concentration
- prevent you from getting cramp

Keeping an eye on the colour and volume of your urine is a simple way to test how well hydrated you are. The darker it is, the more dehydrated you are. Passing a normal amount of urine can suggest you’re well hydrated, whereas small amounts can mean that you’re dehydrated.
Try these ideas to help you get the most out of your exercise routine

**Before exercise**

**Before your workout, try to eat a meal or snack that:**
- is high in carbohydrates to increase your blood glucose level and your glycogen level
- contains some protein to help your muscles recover after exercise
- is low in fat and fibre because these can take a long time to digest and may cause tummy problems

**Pre-exercise snacks**
30 to 60 minutes before you exercise, pre-exercise snacks could include:
- Greek yoghurt with fruit
- homemade granola bars
- bagels, rice cakes or crispbreads topped with chopped banana
- a smoothie made with fruit and low-fat milk

**Pre-exercise meals**
Two to three hours before you exercise, pre-workout meals could include:
- wholegrain cereal or porridge with low-fat milk
- two slices of wholemeal toast with poached eggs or baked beans
- a jacket potato with tuna and salad
- lentil and vegetable soup with a wholemeal bread roll

**Pre-exercise hydration**
Try to make sure you’re already well hydrated before you start exercising by drinking steadily throughout the day. Water, tea and coffee, all count towards your daily fluid intake. Fruit juice and smoothies also count, although it’s best to limit these to one small (150ml) glass a day.

**During exercise**

You shouldn’t need to eat during a short workout because your body will use your blood glucose and your glycogen stores for energy. But if you’re taking part in endurance or high-intensity exercise that’s over an hour long, you’ll need some extra carbohydrates for energy. For more information on this, speak to a dietitian for advice that’s tailored to you.

**Hydration during exercise**
During exercise, drink little and often to help you stay hydrated. Water should be enough for short workouts lasting less than an hour. If you’re doing a moderate-to-vigorous intensity workout lasting more than an hour, an isotonic sports drink (including homemade varieties) may be a better option. These drinks help to replace the sugar and electrolytes you lose through sweat when doing endurance exercise.

Some sports drinks are very high in sugar, but it’s easy to make your own version at home. Simply add 200ml of squash (not a low-sugar variety) and a small pinch of salt to 800ml of water and stir well.
After exercise

After you exercise, it’s important to replenish your nutrient stores to help your body to repair and recover. Try to eat a meal or snack that contains:

- carbohydrates to replenish your glycogen stores
- protein for building and repairing your muscles
- fluids for rehydration

Post-exercise snacks

If you’re not having your main meal within 30 minutes of finishing your exercise, good options for snacks are:

- a banana and a glass of low-fat milk
- a fruit and yoghurt smoothie
- a handful of dried fruit and nuts
- a sports bar that contains carbohydrates and protein

Post-exercise meals

Within two to four hours after you exercise, good choices for post-workout meals could include:

- chicken or fish with potatoes and steamed vegetables
- pasta with Bolognese sauce and a leafy green salad
- vegetable chilli with rice or pasta
- noodle stir-fry with chicken or prawns and vegetables

Post-exercise hydration

Remember to keep rehydrating after exercise to help your body recover. If you eat and drink as usual after exercise, your hydration levels will gradually return to normal.

Low-fat milk is a source of carbohydrates, protein and minerals and can also help you to rehydrate after exercise. Try making a smoothie with banana and milk to help your body repair and recover.

Remember...

that everybody is different, and you might react differently to certain foods or eating at particular times when exercising. It could work best for your body if you eat three hours before you exercise to allow enough time for your meal to digest. Or you might prefer to eat a small snack an hour before you start moving.

You might find eating a meal within 30 minutes after exercising doesn’t feel comfortable in your tummy, so drinking a smoothie is a better option for you. If you have an important event or race coming up, make sure you know what suits you and don’t try anything new on race day. Experiment with different foods and timings during your training and see what works best for your body.