



Fuelling an active lifestyle

When is the best time to eat before training? Do I need protein powder? What will improve my performance?

These are the questions for many of us who live active lifestyles and are trying to do our best to ensure that we are eating a healthy diet alongside this. A balanced diet with plenty of fruits, vegetables, carbohydrates, proteins, and unsaturated fats are the fundamentals that any active individual should base their diet on. When it comes to improving performance, getting stronger, increasing power, and becoming fitter, understanding how to time your nutrition to fuel and refuel the body becomes more important. In this article, we will break down how to do this optimally and practically with our busy lifestyles.

1. Fuelling

The body's main energy source for exercise is carbohydrates. When we eat carbohydrates, it is broken down into glucose and stored in the muscles and liver as glycogen. This is what we refer to as 'out stored form of energy'. When we start exercising, the body breaks down this glycogen into glucose for the muscle fibre to use as energy. This is why low carbohydrate or restricted diets are not recommended for anyone who exercises regularly. Ideally approx. 30-50% of your meals should contain a fibre rich starchy carbohydrate such as basmati rice, brown bread, oats or pasta.

Let's look at when eating carbohydrates is most important and how much we actually need. Since carbohydrates are an essential fuel for exercise, eating before we train is essential. A carbohydrate rich meal that is low in fat and fibre should be eaten 3-4 hours before exercise. Fat and fibre can slow down the digestion and lead to digestion issues in training. Ideally, we should top off these stores again with 30-60g of carbohydrates 30-60 minutes before training. If you are someone who trains after work or school, you can factor this in by bringing in some snacks to have before you exercise. This is simpler than it sounds. Here are some examples:

- Granola bar
- Bowl of cereal
- Toast with banana
- Energy ball (see recipe below)
- 6 dates
- Nutrigrain bar

Sometimes it is necessary to take on carbohydrates during training. This is because after 1 hour of exercise, our glycogen stores are nearly depleted. To maintain our energy levels, it is recommended to consume 30g/hr of carbohydrate when exercising for 1-2 hours and 60g/hr of carbohydrate when exercising for greater than 2 hours. This is why you might see runners using energy gels or football players drinking Lucozade at half time. If you are considering using energy gels or drinks, it is always recommended to trial these first to ensure it is tolerated as they can cause some gastrointestinal discomfort in some individuals.



2. Recovery

The 3 Rs of recovery are: repair, replenish and rehydrate. Evidence has shown that implementing nutritional recovery strategies within 2 hours of completion of exercise are vital to performance. The 3 Rs of recovery are: repair, replenish and rehydrate. Let's take a look at each of these in more detail.

Repair refers to the rebuilding of muscle fibres following muscle breakdown during exercise. In order to repair the muscle, we need to provide it with the building blocks of amino acids that are found in protein rich foods. This rebuilding process, results in increased strength and muscle adaptation to make us fitter and stronger. Protein recommendations after training are 0.4g per kg of body weight within 2 hours of training which usually results in a quantity of about 20-30g. There is a misconception that people who follow vegetarian diets have lower protein intakes however this is not the case.

Have a look at these examples of 20g of protein sources:

- 80g chicken/turkey
- 80g beef
- 3 eggs
- 200g Greek yogurt
- 100g fish
- 1 tin of bean/lentils/pulses
- 150g tofu
- 150g of quorn
- 1 scoop of protein powder

Protein powder is also a handy source of protein that can help you to meet your daily protein requirements. This is particularly useful if you are looking for something convenient as it can be added to drinks, cereals, and yogurts to provide a protein boost. When buying protein powder, always look for the Informed Sport Logo as this ensures that every batch of a product has been tested for more than 250 substances prohibited in sport and that the product was made in an environment with quality systems appropriate for the stringent demands of sports nutrition manufacturing.

Replenish refers to the resynthesis of our glycogen stores that have been used up in exercise. Remember glycogen is made from carbohydrates and therefore it is important to complement our protein rich meal with carbohydrates as well. The general recommendations are about double that of protein at 0.8g per kg of body weight. Ideally, opting for wholegrain varieties will help stabilise blood sugars and keep you fuller for longer. Here are some examples of easy recovery meals including protein and carbohydrates:

- Wholegrain bread with 1 tin of tuna, cucumber, sweetcorn, tomato and low-fat mayo
- Chicken curry with basmati rice
- Baked salmon with sweet potato and broccoli
- Overnight oats mixed with chia seeds, low fat Greek yogurt, berries, and nuts
- 2-3 scrambled eggs on wholegrain toast and avocado

Rehydrate as you might have guessed refers to replenishing your fluid and electrolyte losses from exercise. Did you know that a loss of greater than 1% of your body weight through sweating can have a significant impact on performance? This is why hydrating during and after exercise is important particularly in warmer temperatures or if you notice you have a high sweat output. In general, the recommendations are to rehydrate with water, little and often after exercising.



If you have sweated more than usual, you can include a rehydration solution such as Diaralyte or another oral rehydration solution (O.R.S.). These products contain sodium and glucose to help increase water retention in the body and replace electrolyte losses in sweat.

An excellent recovery meal is a balanced smoothie as it provides the 3rs of recovery:

- Protein: 0% fat Greek yogurt or protein powder
- Carbohydrates: Banana, oats and/or honey
- Fluid: Milk or dairy free milk alternative

You can also add other ingredients such as peanut butter, frozen berries or avocado to make your smoothie even more nutritious and tasty.

By applying effective fuelling and recovery strategies, it will ensure you are performing at the top of your game. After a while the way you eat around training will become second nature and will start to be a routine you follow as part of your lifestyle. As you can see, it doesn't have to be complicated either. When applying this in practice, start by planning out your exercise regime for the week, and then factor in the timing of your nutrition around this.

If you have any questions about how Food Choice can help your organisation, please contact Dr Fiona Geaney today at f.geaney@foodchoiceatwork.com to set up a call.