

# NUTRITION FOR SPORTS RECOVERY

## Why nutrition is so important for sports recovery

During training, your muscles work hard, your fuel stores are likely to be drained and you will lose fluid from sweating. To allow your body to recover and repair itself ready for your next training session, it is essential to have the right nutrition. Especially if you train every day or even twice a day!

Food and fluid after training helps your muscles to recover and strengthen, your body to rehydrate and your immune system to recuperate.

## AIMS OF RECOVERY

### REFUEL

GOAL: Restore the fuel found in muscles and the liver so it is available for the next time you exercise.

During training your body is likely to use some, if not nearly all, of the carbohydrate stores found in your muscles and liver as fuel, particularly in a long, intense training session. These carbohydrate stores (glycogen) need to be replenished as soon as possible after exercise to ensure that they are available for the next training session.

Aim to include a carbohydrate rich meal, snack or drink as soon as possible after training to maximise the speed of this recovery. Aiming for 1g carbohydrate/kg body weight\* is a good place to start; between 50-100g carbohydrate will be fine for most people (See Carbohydrate nutrition advice sheet for more information). Avoid alcohol at all costs immediately after training as this will dramatically reduce your ability to refuel, and can affect recovery.

### REHYDRATE

GOAL: Replace fluid and electrolytes lost in sweat.

During training sessions, you may lose more fluid than you consume during the session. This is particularly true when it is hot, if you sweat heavily or if your training session is extremely intense. To recover, aim to replace 1.2-1.5 times the body

weight that you have lost during that training session.\*\*

e.g. If you train for 40 minutes and you lose 500g in body weight, you need  $500 \times 1.5 = 750\text{g} = 750\text{mls}$  of water/fluid

Contact a sports nutritionist/dietitian to work out a fluid replacement plan if

you do intense training or sweat more heavily than others.

### MUSCLE REPAIR AND RECOVERY

GOAL: Allow your body to make new muscle protein, red blood cells and other components to repair the body.

During intense, prolonged training,



your body is likely to break down muscle protein. Good nutrition, both before and after, can help reduce this muscle breakdown as well as promote recovery. During resistance training your muscles get tiny tears in them. But with good nutrition before and after exercise, your muscles can repair, strengthen and grow.

For optimal muscle recovery it can help to include a small amount of protein in your meal/snack immediately before training.\*\*\* e.g. A small tub of yoghurt or glass of low fat milk.

After training, include protein to help your muscles repair themselves, along with carbohydrate to assist in the absorption of protein, as well as restoring your muscle glycogen. This could be achieved through your next meal or a small snack such as rice crackers and tuna, or fruit and yoghurt.

#### **IMMUNE SYSTEM RECOVERY**

GOAL: Allow your immune system to recuperate after the pressure of exercise

Intense training may suppress the immune system for some time after the workout is over. To ensure your immune system is as healthy as possible, it is important to include carbohydrate in the post training meal/snack as well as making sure that overall, your diet is rich in vitamins and minerals. Include plenty of fruit and vegetables, whole grains, lean meat, fish, low fat dairy products, and a small amount of healthy fats each day.

It has been suggested that Vitamins C and E, Zinc, Glutamine and Echinacea may help the immune system, but there isn't enough evidence to prove their worth or warrant supplements. It is better to improve the variety of your overall diet.

#### **WHAT TO EAT FOR RECOVERY**

A recovery snack must include carbohydrate and in the majority of cases, especially following intensive exercise or resistance training, 20-25g of protein alongside this carbohydrate is ideal.†

#### **Carbohydrate rich recovery snacks:**

- Sports drinks
- Sports gels and water
- Fruit juice or soft drink
- Jelly beans or fruit lollies
- Cereal bars
- Thick soup and bread roll
- Fruit buns, crumpets, pikelets
- Baked potato with salt and pepper

#### **Snacks rich in carbohydrate and protein:**

- Liquid breakfast supplement
- Milkshake or fruit smoothie
- Sports bars
- Creamed rice
- Large bowl of cereal and milk
- Cereal bars and fruit yoghurt
- Baked beans/eggs on toast
- Cottage cheese on toasted bagel
- Bread roll with meat/tuna and salad filling
- Fruit salad and low fat yoghurt
- Crumpets with honey and MILO
- Mini homemade pizza with chicken and vegetables

\*Louise Burke & Vicki Peakin. Clinical Sports Nutrition, 3rd Edition, pg 425.

\*\*Nutrition for Athletes. IOC, April 2012. Pg 24.

\*\*\*Stuart M. Phillips et al, 2011. Dietary Protein for Athletes: From requirements to optimum adaptation.

†Nutrition for Athletes. IOC, April 2012. Pg 20.



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