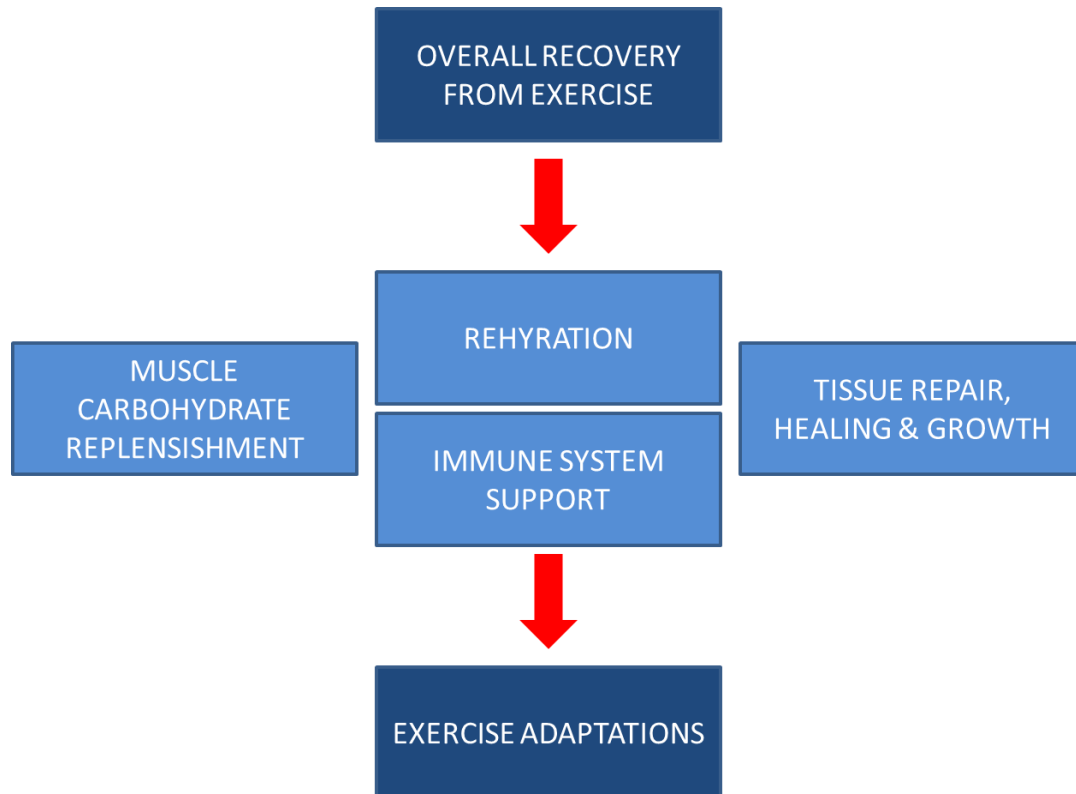


Nutrition is key to support the growth and development of athletes, with the main focus ensuring that athlete's recovery fully from one training session ready for the next. This recovery needs to focus on key areas highlighted below.



This document is to support the presentation delivered and covers the key areas of protein and carbohydrate intake and hydration...the fundamentals to sports nutrition.

The following pages provide the essentials and then focus on pre and post training nutrition.

## **Nutrition Essentials**

The following nutritional points are essential to preserve your performance & protect your health. Without these practises in place you will not maximise your potential.

### **Daily Points**

- Eat at least 3 servings of vegetables varying in colour a day, at least one of which should be raw  
(1 serving = 120g) as a side salad or soup
- Eat at least 2 servings of fruit a day (1 serving = 120g, one handful). 1 daily serving of fruit or vegetables can be replaced by 200ml of fruit juice or vegetable juice
- Eat 6 – 8 small meals/snacks a day – Each meal snack should contain a variety of foods high in carbohydrates, protein, micro-nutrients and be low in saturated fat. At least 3 meals should contain a serving of wholegrain carbohydrates (cup of cooked pasta, rice, cereals, 2 slices of bread or other whole grain products)
- Consume a recovery snack high in protein & carbohydrates immediately after heavy training sessions.
- Consume 3 servings of low fat dairy products a day (1 portion = 200ml milk or 150g of yogurt or 200g of cottage cheese or 30-60g cheese.
- Consume 2 litres of water a day and keep caffeinated beverages to a minimum and an additional 400 to 800ml of water/sports drink for every hour of exercise (the additional fluid should be consumed shortly before, during or immediately after exercise.

### **Weekly points**

- Consume at 2 - 3 portions of red meat a week (1 portion = 100 – 120g of meat (raw weight) e.g. one medium – large beef steak.
- Consume 2-3 portions of oily fish a week (1 portion = 100 – 120g of meat (raw weight) e.g. one medium – large tuna steak.

## Recovery Nutrition

The timing and composition of post exercise snacks and meals depends on the duration and intensity of the exercise session (i.e. whether carbohydrate stores were depleted) and when the next intense workout will occur.

After intense training sessions when muscle glycogen stores are depleted the athlete should aim to consume 1g of carbohydrate per kg of body mass immediately after exercise to replenish glycogen stores.

Protein consumed immediately after exercise will provide amino acids for the building and repair of muscle tissues. Consuming 10 -20g after exercise will be valuable after an intense pool session and especially after an S & C session.

Examples of foods which could be consumed immediately after your sessions and can be stored at the pool in your lockers or fridge!

This is **not extra nutrition** during and should make up part of your daily energy intake. The examples shown are based on a 70kg athlete and should be adjusted accordingly to suit your nutritional requirements.

<b>Any One of the Following Items</b>	
1 500g bottle of For Goodness Shakes	
<b>Any Two of the Following Items</b>	
(One item from the left and one from the right)	
1 tin of low fat rice pudding	<b>1 large piece of fresh fruit</b>
1 pint of low fat milk	1 large tin or pot of fruit salad
1 pot of low fat yogurt	1 cereal bar
1 pot of low fat custard	1 carbohydrate bar
500ml carbohydrate drink/juice	2 Jam tarts
1 Sandwich (meat or peanut butter filling)	1 75g flap jack
<b>500 ml low fat milk shake</b>	2 medium Slices of Malt loaf

## Pre-Training Nutrition

Pre-exercise / competition meals should prepare you for activity and leave you neither hungry nor with undigested food in your stomach. The size and timing of pre-exercise meals are inter-related.

It is not ideal to exercise on a full stomach; larger meals should be consumed 3-4 hours before exercise, whilst small snacks can be consumed in closer proximity.

Meals and snacks should provide sufficient fluid to maintain hydration, relatively low in fat and fibre to facilitate gastric emptying and minimise gastrointestinal distress, be relatively high in carbohydrate to maximise maintenance of blood glucose, be moderate in protein content, and consist of foods familiar and well tolerated to the individual athlete.

### **Examples of pre-exercise meals and snacks:**

<b>2 – 4 hours before exercise</b> (e.g. breakfast before morning session or lunch prior afternoon session)
Breakfast cereal (1 cup or 2-3 wheatabix) with low fat milk & fruit
Porridge (medium to large bowl) with low fat milk & fruit juice
Toast ( 2-3 pieces), muffins or crumpets (large with honey/jam)
Beans on toast (half large tin with 2 thick slices)
Pasta (100-150g) with low fat, tomato based sauce
Jacket (medium) potato with beans (half large tin)
Large Roll / tortilla/ sandwich with lean meat filling & banana
Fruit salad with low fat yogurt (150g) or fromage frais
Smoothie based on low fat milk, low fat yogurt (250ml) and fruit
<b>Within an hour before training</b> (examples of snacks which can be consumed in the hour before training sessions e.g. early morning sessions)
1 Large Banana and cereal bar and water/fruit juice
1 or 2 cereal bars and fruit juice/water
Medium Bagel/ 2 x toast and fruit juice/water
2 weetabix with low fat milk and orange juice/water

\*quantities are general and for specific individual amounts please contact me