GCSE Physical Education – Diet, Weight, Nutrition & Hydration

A balance diet – eating the right foods in the correct proportions. Insufficient macro and micronutrients can cause health issues *i.e. anaemia, rickets and scurvy.*

7 components of a balanced diet:

Macronutrients

- Carbohydrates – Main energy source. i.e. pasta & potatoes
- Fats – Secondary energy source & provides insulation. i.e. butter
- Proteins – Help growth and repair of muscles. i.e. eggs, meat & fish

Micronutrients

- Minerals – Maintains a healthy bodily functioning. i.e. iron and calcium
- Vitamins - Maintains a healthy immune system. i.e. vitamin C/D

Other components

- Fibre – Aids digestion of food in the gut. *i.e. cereals & nuts*
- Water – Maintains hydration of an athlete.

Hydration and physical activity

Water is necessary for:

- Transportation of nutrients
- Removes waste products through urine
- Regulates body temperature

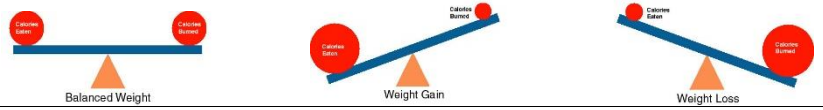
A lack of water can cause **dehydration**. Symptoms are tiredness, lack of concentration and headaches.

After the event - An athlete will continue to drink fluids to replace the water and carbohydrate levels that are depleted.

Organising meals around exercise – it is recommended to eating 2-3 hours before exercise. This is due to redistribution of blood during exercise (Blood Shunting)

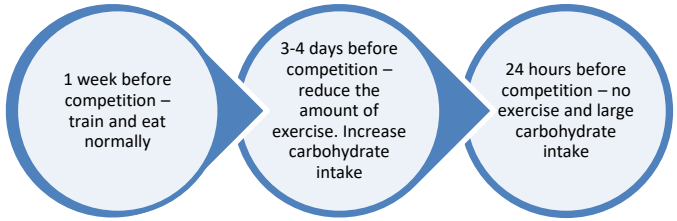
When exercising, the distribution of blood around the body changes according to the demands. *i.e. away from digestive system and to working muscles.*

Energy Balance – this relates to intake and energy expenditure.



Dietary manipulation to optimise performance

Carbohydrate Loading – a strategy used by endurance athletes to increase carbohydrate stores



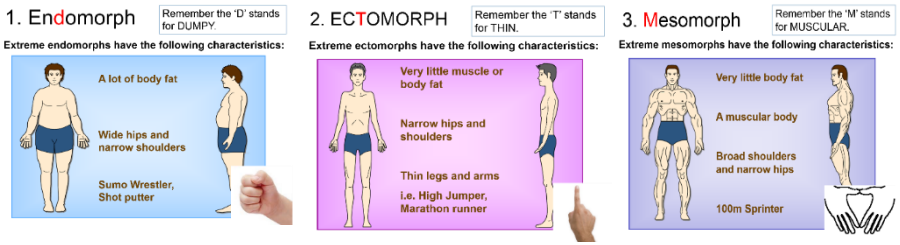
Protein intake – the intake and timing of this consumption is vital to maximise the repair of muscle tissues after training. Protein should be take straight away to increase muscle repair.
Used by **sprinters, shot putters & power events**.

Optimum Weight – this is the ideal weight someone should be. This will depend on:

- Height
- Gender
- Bone structure
- Muscle girth (size)

Optimum weight varies depending on the requirements of different sports/positions.
i.e. rugby forwards & backs

Somatotypes (AQA only)



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Term	Definition/notes/concept

Keywords: