Ken Stimpson GCSE Physical Education – Diet, Weight, Nutrition & Hydration



A balance diet – eating the right foods in the correct proportions to maintain a healthy body weight. 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. Complex starch (pasta & potatoes) & simple sugars (glucose, chocolate, sweets)
- Fats Secondary energy source & provides insulation. i.e. Saturated fats (butter) & unsaturated fats (vegetable oil)
- Proteins Help growth and repair of muscles. i.e. eggs, meat & fish

Micronutrients

- Minerals Maintains healthy bodily functioning. i.e. iron and calcium
- Vitamins Maintains a healthy immune system. i.e. vitamin A, C, D, E, K

Other components

- Fibre Aids digestion of food in the gut. i.e. cereals & nuts
- Water Maintains cell function and hydrates an athlete.



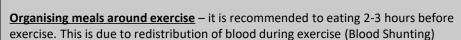
Hydration and physical activity

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.



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







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.



Glycogen stores

Optimum energy at muscle level through carb-loading. Other ways to keep this high are to:

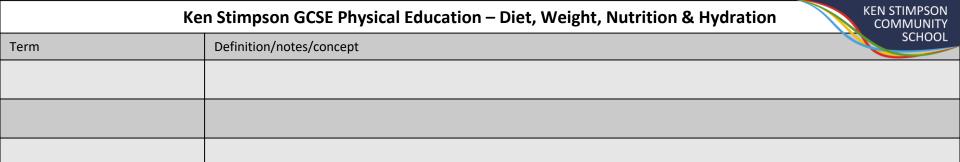
- Consume carbs 2-4 hours before exercise
- Consume very small amounts of carbs half an hour before exercise
- Eat carbs straight after exercise for up to 2 days to replenish stores

Other factors

- Timing of meals around training
- Adequate fluid intake
- Adequate iron intake
- Adapt diet depending on workload
- Psychological well-being
- Sharing of ideas between coach, dietician and athlete
- Obsession with food by athletes should be strongly avoided
- Possible use of supplements for high performing athlete within the restictions of the sport







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Keywords: