

**KG 1 – Common Terminology**

1.	<b>RDA</b>	Recommended daily allowance
2.	<b>Energy Measures</b>	Calories, joules, kilocalories. Kilojoules.
3.	<b>BMR</b>	Basic metabolic rate. Minimum rate of metabolism in an individual who is not digesting or absorbing food. BMR represents the lowest rate of energy usage that can sustain life.

**KG 2 – Key words**

4.	<b>Macronutrients</b>	Required in large amounts on a daily basis.
5.	<b>Micronutrients</b>	Required in a smaller amount but essential or disease prevention and well-being.

**KG 3 – Carbohydrates**

Carbohydrates are your bodies most available source of energy. They can be stored in the muscles later for energy but excess carbs not required will be converted into fat.		<b>45-65% of diet</b>
6.	Simple - These are sugars and a <b>quick energy source</b> . E.g. Sugar, Jam, Sweets and fizzy drinks.	
7.	Complex - Broken down <b>slowly to release energy</b> over long periods. E.g. Bread, pasta, rice and potatoes	

**KG 4 – Protein**

The main role of protein is to build and repair tissue. Can also be a secondary source of energy when carbs and fats are limited.		<b>10-35% of diet</b>
8.	<b>On average:</b> Men should consume around 55g a day Women should consume around 45g a day	
9.	Complete proteins: Meat, Milk and Fish	
10.	Incomplete proteins: Cereals, Bread and Beans	

**KG 5 – Fats**

Fats are important for normal growth and development. They can also be important for energy as it has the most concentrated source of energy. Too much saturated fat in a diet can cause significant health problems.		<b>20-35% of diet</b>
11.	<b>Gov recommendation</b> Men should consume no more than 30g a day Women should consume no more than 20g a day	
12.	Saturated (animal products) Meat, Dairy, Butter and Cream	
13.	Unsaturated (plant products) Avocado, Nuts. Olives and Soybeans.	

**KG 6 –Vitamins and Minerals**

14.	<b>Vitamin A</b>	Needed for the normal functioning of the eyes and the respiratory tract and keeps immune system healthy. Found in green vegetables and carrots.
15.	<b>Vitamin B</b>	Essential for the support of the breakdown and release of energy from food. Found in eggs and lean meat.
16.	<b>Vitamin C</b>	Helps protect cells and keeps them healthy and maintain healthy connective tissue. Found in vegetables and citrus fruit.
17.	<b>Vitamin D</b>	Needed for the absorption of calcium and keeping bones healthy. Found in fish, eggs and sunlight UV.
18.	<b>Calcium</b>	Helps to build strong bones and teeth and ensures blood clots normally. Found in milk and green leafy vegetables.
19.	<b>Iron</b>	Needed for the formation of haemoglobin in red blood cells to help the transport of oxygen. Found in liver, meat and nuts.

KG 6 – Hydration		
Effects on fluid amounts		
17.	Climate	Hot/humid climate will require an increase in fluid intake as the bodies ability to keep cool is reduced.
18.	Levels of exercise	Athletes need to ensure they are fully hydrated before, during and after exercise.
19.	Time of year	Athletes should be encouraged to take more care when hydrating in the summer months due to higher outdoor temperature.
Dehydration		
19.	This is a reduction in the normal water content of your body, when you lose more fluid than you take in.	
20.	Dehydration can lead to decreased blood pressure, increased heart rate and increased core body temperature.	
Hyperhydration		
21.	This is an increase in the normal water content of your body, when you take in more fluid than you lose.	

KG 7 – Ergogenic aids		
Ergogenic aids are used to improve performance during high-intensity exercise.		
22.	Energy gels/bars	Helps replenish carbohydrates Helps replenish glycogen/calories Deliver a quick supply of energy to your muscles when needed.
23.	Protein drinks	Can reduce muscle soreness post-training Increase muscle size and strength Reduced hunger Can be expensive
24.	Carbohydrate loading	Used to maximise storage of glycogen in the muscles 48hrs before performance Involves less training and more carbohydrates before an event.

KG 8 – Sports Drinks		
Sport drinks aim to provide three nutrients: <b>Carbohydrates</b> – to replace energy <b>Water</b> – Replace fluids <b>Electrolytes</b> – replace minerals lost by sweating. There are <b>3 types</b> of sports drinks.		
25.	Isotonic	<ul style="list-style-type: none"> <li>Contain the same concentration of glucose to water as blood. (4-8% or up to 8g per 100ml of water).</li> <li>They contain sodium, making them quicker to absorb into the blood stream.</li> <li>Useful for prolonged exercise and can be used before exercise.</li> </ul>
26.	Hypertonic	<ul style="list-style-type: none"> <li>High energy, concentrated sports drinks containing over 8% of carbohydrate; they are absorbed more slowly than isotonic drinks.</li> <li>Not ideal for optimal rehydration and may need to be consumed with other fluids.</li> <li>They are best used in the recovery phase after exercise.</li> </ul>
27.	Hypotonic	<ul style="list-style-type: none"> <li>Have a lower concentration of carbohydrates and are more diluted than isotonic and hypertonic drinks.</li> <li>They contain less than 4% carbohydrates (4g per 100ml of water) and are generally well absorbed and well tolerated.</li> <li>When sweat losses are small, these drinks encourage fluid replacement.</li> <li>Their salt concentration is lower than body fluids.</li> </ul>