A Balanced Diet

Definition: A diet that contains the correct proportions of carbohydrates, fats, proteins, vitamins, minerals, and water necessary to maintain good health.

Input of the right amount of energy to match the amount of exercise.
Diet is made up of macro and micronutrients. Macronutrients should make up most of the diet; micronutrients should be consumed in moderation.

The Components of a Balanced Diet:

1. Carbohydrates
2. Proteins
3. Fats
4. Minerals
5. Vitamins
6. Fibre
7. Water and Hydration

Carbohydrates

Function: Provides quick and efficient energy for movement.
Carbohydrates are stored in the body as glycogen and broken down into glucose when they are needed. There are two types of carbohydrate; simple and complex. Simple carbs release energy quickly and complex carbs release every slowly.

Examples: Bread, pasta, rice (complex carbs), biscuits, fruit (simple carbs)

Intake for different needs:
Normal needs – 50-60% of the diet needs to be made up of carbs for someone who does a normal amount of activity.
Athletes – an endurance performer needs 70% of the diet to be made up of carbs. These need to be complex carbs for a slow release of energy.

Proteins

Function: Repair and growth of muscle tissue. Can be an energy source once energy from carbohydrates and fats has been used up.

Examples: Fish, meat, dairy products, nuts, seeds

Intake for different needs:
Normal needs – 0.8g per kg of body weight for someone who does a normal amount of activity.
Athletes – strength (weightlifters) and power (throwers) athletes need 1.2-1.5g per kg of body weight. This will enable them to increase their muscle mass

Fats

Function: provides a very slow release of energy, protects vital organs and helps to prevent heat loss. Some fats are healthy (monounsaturated and polyunsaturated; found in peanuts and fish) and some fats are unhealthy (saturated and trans; found in butter and cake). Unhealthy fats should be eaten in moderation.

Examples: Meat, cheese, cream, fish, nuts

Intake for different needs:
Normal needs – 35% (of healthy fats) should make up a normal diet. Too much fat could cause weight gain which can effect everyday life.
Athletes – some endurance athletes may need a slight increase in fat in their diet due to its slow release of energy. Too much fat in the diet could lead to a decrease in performance.

Minerals

Function: essential for most bodily functions for example bone growth/strength, the nervous system and the immune system. A wide range of minerals are needed including calcium (plays a part in strong and healthy bones), iron (plays an important part in releasing energy) and potassium (important for growth and building muscle).

Examples: Milk, broccoli; Red meat, nuts; Bananas, white meat.

Vitamins

Function: Ensure vital chemical reactions take place in the body. They are responsible for making sure that essential bodily functions happen (e.g. blood production). They are vital for the production of energy and the prevention of disease.

Examples:
Vitamin A: dairy, green veg
Vitamin B: vegetables, wholegrain cereals
Vitamin C: citrus fruit, vegetables
Vitamin D: oily fish, eggs

Fibre

Function: To ensure good bowel function and healthy digestion.

Examples: Fruit, vegetables, nuts, cereals

Water and Hydration

Function: Water is the main component of blood and cells. It helps carry nutrients, remove waste products and regulate body temperature. It also replaces water lost from sweat during exercise.

Consequences of a Lack of Hydration:

-Causes fatigue
-Skill level decreases
-Become thirsty
-Leads to a loss of motivation
-Increase in body temperature
-Decrease in sweating
-Muscle cramps

Carbohydrate Loading

Carbohydrates are stored in the body (and muscles) as glycogen and converted into glucose when the body needs more energy e.g. during exercise.

This technique is used to increase the amount of glycogen stores in the muscles before an endurance event. About 4 days before training, the athlete will decrease the amount of training and increase the quantity of carbohydrates eaten.

Performers like marathon runners, long distance cyclists and triathletes will use this method.

Effects of Over-Eating on Performance

- Carrying too much weight can cause a lack of mobility and an increased risk of getting injured
- Feeling tired and lacking energy that may stop you performing (short term effect)
- Lack of endurance (long term effect)
- Lack of speed and agility that makes it difficult to move quickly
- Lack of motivation to get involved
- Health issues (e.g. diabetes) may limit performance
- Feelings of embarrassment that stop you getting involved
- The negative views of other may hinder your performance

High Protein Diets

Athletes that are aiming to build muscles during strength training will eat a high protein diet. Protein helps to build muscle tissue but does not do this automatically. This type of diet will need to be combined with strength training in order to have any effect.

Athletes like weight lifters and throwers are likely to use this type of diet.