

# Food Preparation & Nutrition

## Yr7 Food – Term 3/ Summer



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Food contains nutrients which are substances that are needed by our bodies to perform different functions. We need to eat a diet that contains all the nutrients in the right amounts to keep healthy!

Nutrients are grouped into:

### Macronutrients:

- Protein, Carbohydrate and Fat.
- Needed by the body in larger quantities
- Measured in grams (g)

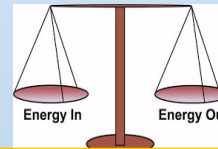
### Micronutrients:

- Vitamins and minerals.
- Necessary for body processes and to keep the body healthy
- Needed by the body in small amounts
- Measured in milligrams (mg)



Not eating a balanced diet, and eating too much fat, sugar and salt can lead to health risks and illness when we are older

- ❑ Too much **Sugar** can cause weight gain, tooth decay and Diabetes Type 2.
- ❑ Too much **Salt** can increase blood pressure which can cause heart disease and strokes.
- ❑ Too much **Fat**, especially from animal sources such as butter and lard, can clog up our arteries and increase the chances of developing heart disease, Cholesterol, obesity and Diabetes Type 2.

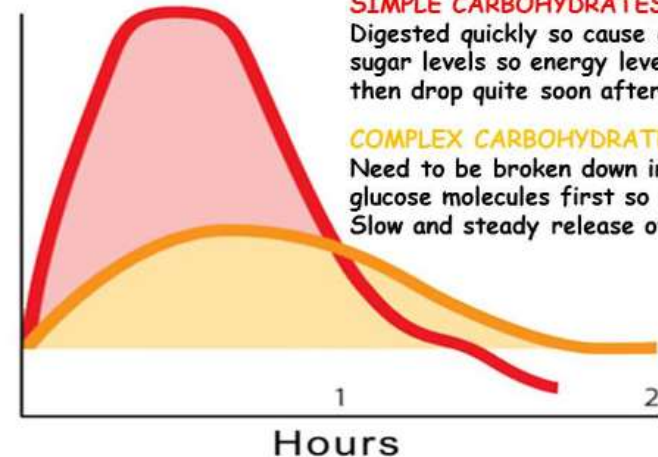


<https://www.nhs.uk/healthier-families/food-facts/>

**Carbohydrates** are divided into **Sugars, Starches** and **Dietary Fibre**. Dietary fibre keeps the digestive system healthy by helping food waste travel through the body more easily. Found in wholegrains and the cell walls of plants.

- **Starches/Complex carbohydrates (monosaccharides and disaccharides)** Provide SLOW-release energy and LOW GI (Glycaemic Index). Source: Potatoes, pasta, cereals... They have a more savoury taste
- **Sugars/Simple carbohydrates (polysaccharides)**. Provide FAST-release energy and HIGH GI (Glycaemic Index). Source: Fruits, caster sugar, honey... They have a sweet taste

Blood Glucose Levels



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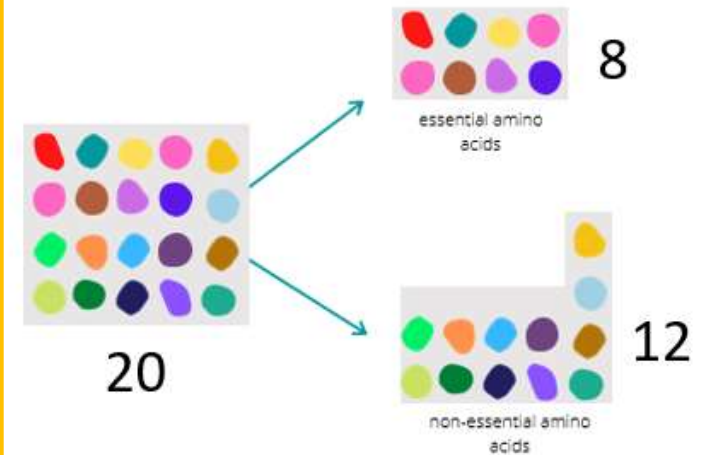
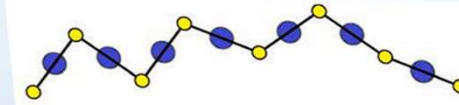


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### Proteins

- Made of **amino acids**.
- There are 20 different amino acids in total
- 8 are **essential** and must come from the diet (2 extra for children for growth).
- **High biological value protein foods (HBV)** contain all the essential amino acids. Eg: meat, fish, milk, eggs, soya (exception)
- **Low biological value protein foods (LBV)** are missing one or more essential amino acids. Eg: Pulses, nuts, seeds, cereals
- **Protein complementation** is when 2 LBV protein foods are combined to provide all the 8 essential amino acids. Eg: Beans on toast

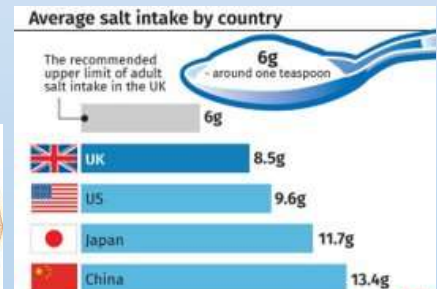
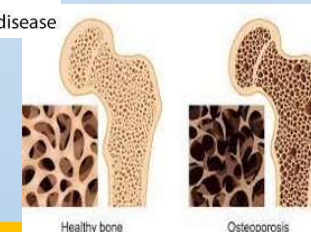
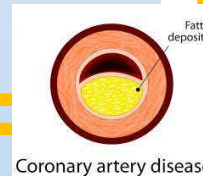


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**Fats** Insulate the body (protecting us from the cold). protect our bones and internal organs, provide the body with fat soluble vitamins (vitamins A,D,E & K) and act as a store of energy in the body.

Fats are composed of fatty acids plus glycerol (triglycerides)  
Fats are divided into **Saturated** (from animal sources, solid at room temperature) found in butter or lard and **Unsaturated** (from plant sources, liquid at room temperature). Unsaturated fats are also divided into monounsaturated (olive oil, nuts, avocados) and Polyunsaturated fats (fatty acids omega 3) found in fish oil and walnuts.

A diet high in saturated fat can lead to **Coronary Heart Disease (CHD), High Cholesterol, blocked arteries, obesity and Diabetes Type 2**



### Vitamins and Minerals

Vitamins and Minerals are needed for the healthy functioning of the body.

- **Fat-soluble** vitamins can be stored in the body. Vits A, D, E and K.
- **Water-soluble** vitamins cannot be stored in the body and are required daily. Vits B and C.
- **Minerals:** Calcium, Iron, Sodium