Polar Basic Amino Acid (Positively Charged)

Arg: Arginine

Arginine is a semi-essential amino acid. It is important in metabolic processes, regulation high blood pressure, treatment of heart disease, strengthening the immune system and improving blood circulation, decreasing cholesterol levels and burning excess fats

Structure:

Its formula is C6H14N4O2.

Polar Acidic Amino Acids (Negatively Charged)
Glu: Glutamic acid
It is non-essential amino acid. The salts and carboxylate anions associated with glutamic acid are called as glutamates.
glutamine and Glutamic acid are in the same amino acid family group and they can alter their structure to transform into each other.

-It is important for the synthesis of proteins.
-important for the health of the immune and digestive systems,
.-Produced and stored in muscle tissues

Peptide Bonds

Amino acids join together to form a protein through peptide bonds. The bond is formed when the carboxyl group of an amino acid joins together with the alpha group of another amino acid. This is called a **condensation reaction** as a water molecule is lost in the process.A property of peptides is that of being **polar** as they have a free amino a group at one end and a free carboxyl group at the other end.

When two amino acids join together, it is called a **dipeptide.**

When three amino acids join together, it is called a **tripeptide.**

When multiple amino acid join, they are referred to as **polypeptides**.