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Amino acids are important biochemical molecules. They contain both a carboxyl group (COOH) and an amino group (NH2). The general formula for an amino acid is H2NCHRCOOH where R is the functional group of the amino acid. There are 20 amino acids derived from proteins. Proteins occur in great variety, thousands of different types may be present in a single cell. Moreover, proteins exhibit great diversity in their biological function. Their central role is made evident by the fact that proteins are the most important final products of the information pathways existing in living organisms.

All proteins are made from relatively simple monomeric subunits called amino acids. The amino and carboxyl group of amino acids are chemically active and can combine with acids, bases, and a wide range of other reagents. Further, the amino group of one amino acid readily combines with the carboxyl group of another. The result is the elimination of a molecule of water and formation of a peptide bond. When two amino acids react, a dipeptide is formed, with the peptide bond at the centre. The remaining free amino and carboxyl groups at the ends can react in like fashion with other amino acids forming polypeptides. These and other reactive groups on the chains of different amino acids can enter into a wide range of reactions with many other food constituents. Amino acids, peptides and proteins are important constituents of food. They supply the required building blocks for protein biosynthesis. In addition, they directly contribute to the flavor of food and are precursors for aroma compounds and colors formed during thermal or enzymatic reactions in production, processing and storage of food.

While there are several methods of categorizing them, one

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of the most common is to group them according to the nature of their side chains. Since their side chains are the deciding factors for intra- and intermolecular interactions in proteins, and hence, for protein properties. While plants are able to utilize inorganic sources of nitrogen such as ammonia, nitrates and nitrites, man and other animals are for the most part dependent on a source of amino acids to build their body proteins.

