# Collagen – Structure and physicochemical properties

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**ABSTRACT**
Collagen molecule is a structural and insoluble fibrous protein that occupies one third of the total human body's protein and is the prevalent component of the extracellular matrix (ECM). Collagen is a relatively simple protein that forms molecular cables that strengthen the resilient sheets and tendons supporting the skin and internal organs. Collagen protein also has a multitude of functions, including cell adhesion, tissue morphology and tissue repair. The basic units of collagen-rich tissues are the collagen fibrils. Collagen fibril is a fibre that is 50 to 100 nm thick. Such fibres are assembled to form a number of more complex structures with varying mechanical and physical properties. A brief summary of the structure of collagen is followed by a review of their physicochemical and mechanical properties. Among specific properties are indentation hardness, amino acid profile, thermal stability, isoelectric ph, foam and emulsion forming properties.

**KEYWORDS**
Collagen fibril; Physicochemical; Mechanical; Protein

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