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**Lecture title: Biological important of peptides**

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**Summary** In particular, 20 very important amino acids are crucial for life, the structure of a protein determines its function. Amino acids are imperative for sustaining the health of the human body

**Biological functions of amino acids :**

- Grow and repair body tissue.
- Make brain chemicals (neurotransmitters).
- Provide an energy source.
- Maintain healthy skin, hair and nails.
- Build muscle.
- Boost immune system.
- Production of hormones
- Structure of muscles
- Human nervous system's healthy functioning
- The health of vital organs
- Normal cellular structure
- The amino acids are used by various tissues to synthesize proteins and to produce nitrogen-containing compounds (e.g., purines, heme, creatine, epinephrine). The nitrogen-containing substrates are used in the biosynthesis of purines, pyrimidines, neurotransmitters, hormones, porphyrins, and nonessential amino acids.
- The carbon skeletons are used as a fuel source in the citric acid cycle, used for gluconeogenesis, or used in fatty acid synthesis.