

Chapter 4 – The Three Dimensional Structure of Proteins

4.1 Overview of Protein Structure

The following sub-sections are important:

- The Introduction
- A Protein's Conformation is Stabilized Largely by Weak Interactions
- The Peptide Bond is Rigid and Planar

4.2 Protein Secondary Structure

The following sub-sections are important:

- The Introduction
- The α -Helix Is a Common Protein Secondary Structure
- Amino Acid Sequence Affects Stability of the α -Helix
- The β Conformation Organizes Polypeptide Chains into Sheets
- β Turns Are Common in Proteins

4.3 Protein Tertiary and Quaternary Structure

The following sub-sections are important:

- The Introduction
- Fibrous Proteins Are Adapted for a Structural Function
- Structural Diversity Reflects Functional Diversity in Globular Proteins
- Myoglobin Provides Early Clues about the Complexity of Globular Proteins Structure
- Globular Proteins Have a Variety of Tertiary Structures
- Some Proteins or Protein Segments Are Intrinsically Disordered

4.4 Protein Denaturation and Folding

The following sub-sections are important:

- The Introduction
- Loss of Protein Structure Results in Loss of Function, the information in Figures 4-25 & 4-26 are really important
- Some Proteins Undergo Assisted Folding