Chapter 22-Biosynthesis of Amino Acids, Nucleotides, and Related Molecules

22.4 Biosynthesis and Degradation of Nucleotides

The following sub-sections are important:

* De Novo Purine Nucleotide Synthesis Begins with PRPP
* Purine Nucleotide Biosynthesis Is Regulated by Feedback Inhibition
* Pyrimidine Nucleotides Are Made from Aspartate, PRPP, and Carbamoyl Phosphate
* Pyrimidine Nucleotide Biosynthesis Is Regulated by Feedback Inhibition
* Nucleoside Monophosphates Are Converted to Nucleoside Triphosphates
* Ribonucleotides Are the Precursors of Deoxyribonucleotides
* Thymidylate Is Derived from dCDP and dUMP
* Degradation of Purines and Pyrimidines Produces Uric Acid and Urea, Respectively
* Purine and Pyrimidine Bases Are Recycled by Salvage Pathways
* Excess Uric Acid Causes Gout
* Many Chemotherapeutic Agents Target Enzymes in Nucleotide Biosynthetic Pathways