



NEED TO KNOW

NITROGEN 2

Describe the role of folic acid in amino acid metabolism.

- Tetrahydrofolate
- "one carbon pool"
- Methionine synthesis
- Glycine biosynthesis
- Serine biosynthesis

Diagram and describe how the different classes of amino acids are metabolized and what occurs (at the biochemical level) when there are defects in amino acid metabolism.

- Phenylalanine hydroxylase
- α -keto acid dehydrogenase
- homogentisic acid oxidase
- Alkaptonuria
- Phenylketonuria
- Homocystinuria
- Maple syrup urine disease
- Know what the product of the amino acids are (i.e. pyruvate, oxaloacetate, etc.) and how they relate to gluconeogenic or ketogenic substrates.



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Define nonessential amino acids and describe their synthesis.

- Essential amino acids
- Nonessential amino acids