NEED TO KNOW

NITROGEN 1

Describe the concept of the amino acid pool and compare and contrast amino acids acquisition from endogenous and exogenous protein sources.

- The amino acid pool
- Zymogens
- Trypsin
- Elastase
- Chymotrypsin
- Intracellular protein degradation (Proteasome)
- Dietary Protein Digestion

Describe ammonia transfer to and from amino acids and its transport and subsequent elimination from the body.

- Transamination
- Removal of nitrogen from amino acids
- Urea Cycle
- Glucose-alanine cycle (Cahill Cycle)
- NAG
- Glutamate dehydrogenase
- Alanine aminotransferase (ALT)
- Aspartate aminotransferase (AST)
- Glutamate synthetase
- Glutaminase
- carbamoyl phosphate synthase I
- ornithine transcarbamylase
- Cystinuria

Describe how congenital deficiencies in the urea cycle can cause hyperammonemia.

- ornithine transcarbamylase disorder
- Carbamoyl phosphate synthetase I deficiency
- N-acetylglutamate synthase deficiency (not congenital, but something to know)