

Urea Cycle

I. Ammonia bad

- A. in brain
- B. ions

II. Excretory strategies

- A. Ammonotelic
- B. Ureotelic
- C. Uricotelic

III. History

IV. Pre-step

- A. carbamoyl phosphate synthase I (CPS I)
- B. carbamoyl phosphate

V. Urea cycle

- A. Step 1
 - 1. ornithine transcarbamoylase
 - 2. citruline
- B. Step 2
 - 1. argininosuccinate synthase
 - 2. argininosuccinate
- C. Step 3
 - 1. arginosuccinase
 - 2. arginine + fumarate
- D. Step 4
 - 1. arginase
 - 2. urea + ornithine

VI. Clinical Insights

- A. Inherited defects
- B. Liver damage
- C. Hibernation