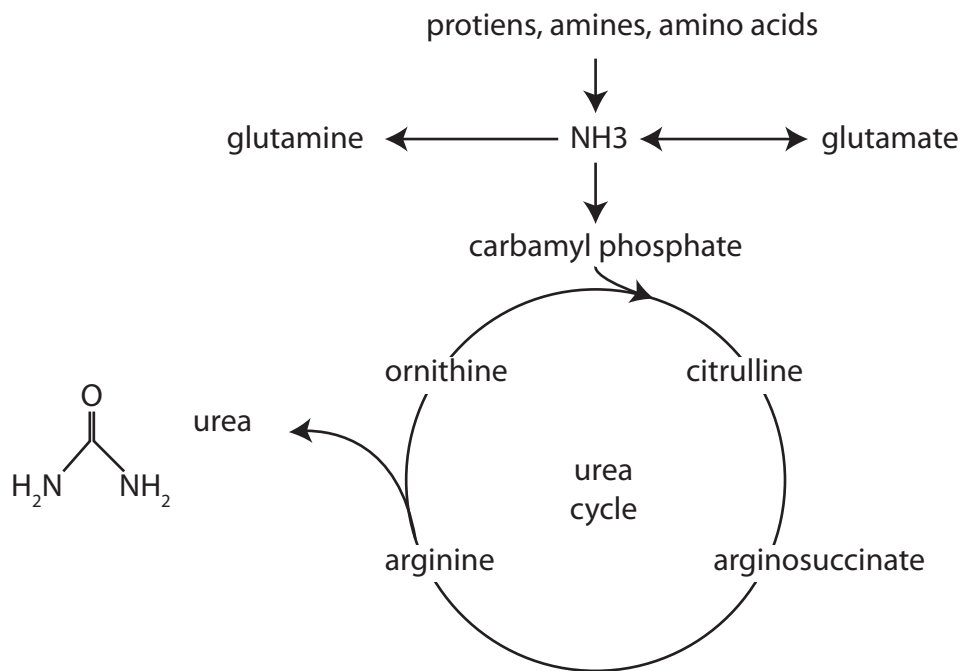


Urea

is derived from breakdown of amino acids into ammonia
production is approximately 30g per day of 100g protein diet
normal blood concentration is 3-6 mmol/L

Production



Roles

end product of ammonia degradation (ammonia is toxic in higher concentrations)
nitrogen balance
augmenting the effect of the counter current mechanism in the kidney

Excretion

is via the kidneys
freely filtered at the glomerulus
50% reabsorbed during passage of the tubule (increased fraction in dehydration)

In excess uremia

causes
excessive production (protein catabolism)
reduced excretion (renal failure, dehydration)
symptoms
characterised by anorexia, nausea, confusion and coma