Phenylbutyrate is a prodrug that is rapidly converted to phenylacetate, which combines with glutamine to form phenylacetylglutamine. The phenylacetyglutamine, containing two atoms of nitrogen, is excreted in the urine, thereby assisting in clearance of nitrogenous waste. URINE **Phenylacetylglutamine Protein** Phenylacetate Amino acids **Glutamine** Glutamine **Glutamine** synthetase **Glutamine** Glutamate **Glutamine**