

# TRANSAMINATION

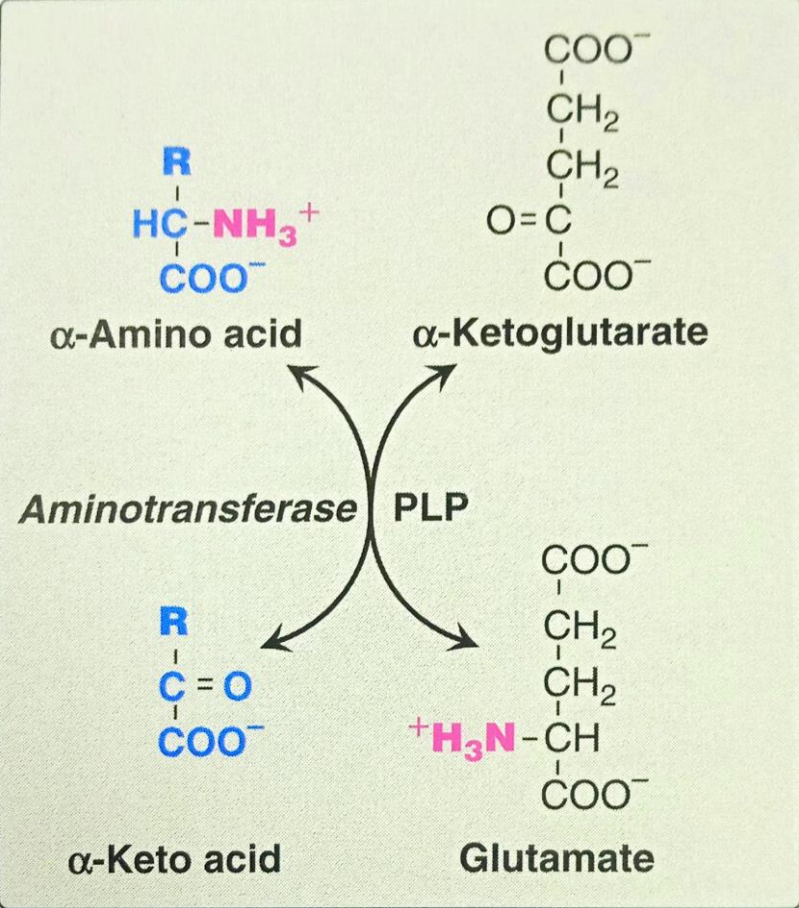
KASHAF HAMEED KHATTAK

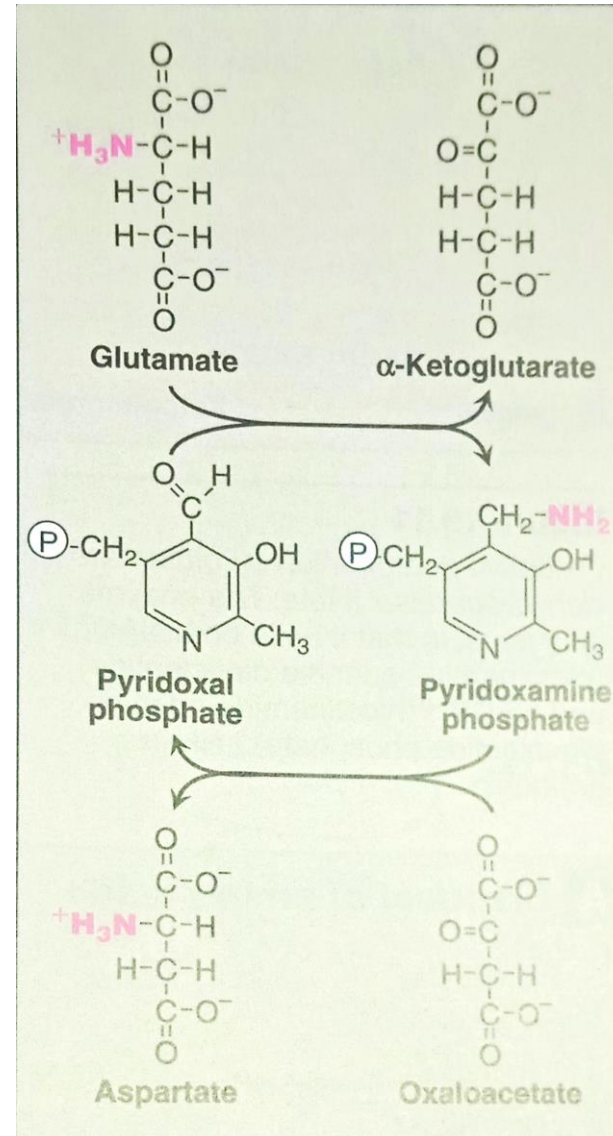
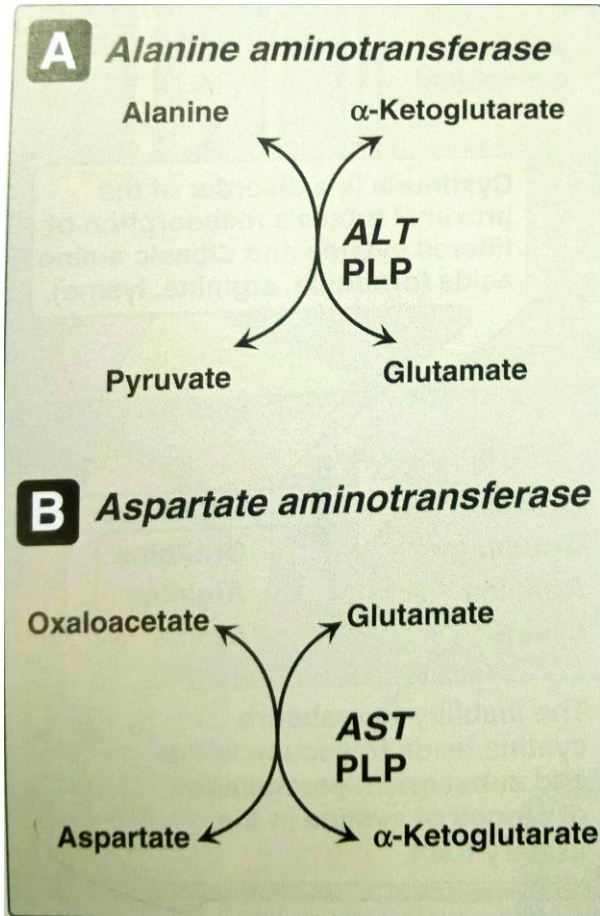
# Definition:

- “Transfer of amino group from an amino acid to Keto acid”
- Interconversion of pair of amino acids & Ketoacids
- Catalysed by Group of Enzymes called **Transaminases(aminotransferases)**

# Features of Transamination

- Require **Pyridoxal phosphate**, *a coenzyme derived from **Vitamin B6***
- Each aminotransferase is specific for one, at most, few amino group donors (**Aspartate Transaminase, Alanine Transaminase**)
- **Reversible Reaction**
- Production of **Non-Essential Amino acids**
- **Energy Generation**
- Transamination is not restricted to **alpha aminoacids**





# Diagnostic Values:

- Aminoacid normally intracellular enzyme,
- ***High level of aminotransferase indicates damage to cell rich in these enzymes***

## **HEPATIC DISEASE**

**AST** and **ALT** elevated in all hepatic diseases particularly those diseases which causes the **cell necrosis**

***ALT is specific for LIVER DISEASES but AST is sensitive because liver contains large amounts of AST***

## **NON-HEPATIC DISEASE**

Aminotransferase may be elevated such as those causes damage to cardiac or skeletal muscles