

Dr. Rayan

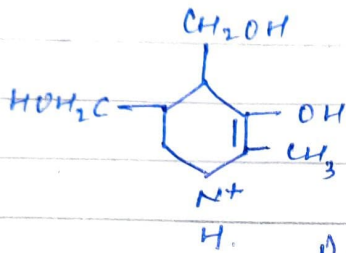
B.Sc. (H) - 200

PYRIDOXAL / PYRIDOXAMINE / PYRIDOXINE (B₆ Group) Part II
Sept-14
(Rat Antidermatitis factor).

Pyridoxine was first discovered in 1938 and synthesized by STILLER in 1939. Natural sources contain two other sources of this vitamin, Pyridoxal & Pyridoxamine. The three substances as a group are designated vitamin B₆; no single one is considered vitamin, since all three are equally effective in animal nutrition.

CHEMISTRY:-

Pyridoxine is 2-methyl-3-hydroxy-4,5-di(hydroxymethyl) pyridine. The active form of the vitamin is Pyridoxal phosphate.



Pyridoxine.

SOURCES:-

The B₆ group is widely distributed in nature, and those foods rich in other members of the B complex are excellent sources of these materials, e.g.: the germs of the various grains and seeds, egg yolk, yeast and meat, particularly liver & kidney.

FUNCTIONS:-

- (1). It is a constituent of coenzymes Pyridoxal phosphate, which is involved in the non-oxidative degradation of amino-acids, viz: transamination, deamination, decarboxylation, etc.
- (2). It is essential in the synthesis of haem for haemoglobin and cytochromes.

DEFICIENCY:-

There is a little evidence that diets containing a reasonable balance of naturally occurring food stuffs are ever seriously deficient in vitamin B₆. However occasional cases of B₆ deficiency do arise as a result of malabsorption, alcoholism, antagonism to drugs, etc. Pyridoxine deficiency in humans may be associated with a reversible hypochromic microcytic anaemia with a high serum iron similar to that observed in pyridoxine deficient animals.