

# ASCORBIC ACID TABLETS

## Composition:

Each tablet contains Ascorbic Acid BP 100mg, 250mg, 500mg

## Pharmacological actions:

The biological functions of Ascorbic Acid (vitamin C) are based on its ability to provide reducing equivalents for various biochemical oxidation-reduction reactions. The vitamin can reduce most physiologically relevant reactive oxygen species, and as such functions principally as a cofactor for reactions requiring a reduced iron or copper metalloenzyme and as a protective antioxidant that operates in the aqueous phase both intracellularly and extracellularly.

## Pharmacokinetics:

Ascorbic acid is readily absorbed from the gastrointestinal tract and is widely distributed in the body tissues. A plasma concentration of ascorbic acid rises as the dose ingested is increased until a plateau is reached with doses of about 90 to 150 mg daily. Body stores of ascorbic acid in health are about 1.5 g although more may be stored at intakes above 200mg daily. Ascorbic acid is reversibly oxidised to dehydroascorbic acid; some is metabolized in the liver to ascorbate-2-sulfate, which is inactive, and oxalic acid which are excreted in the urine. Ascorbic acid in excess of the body's needs is also rapidly eliminated unchanged in the urine; this generally occurs with intakes exceeding 100 mg daily.

## Indications:

Maintaining an adequate intake of vitamin C is to prevent scurvy and to provide antioxidant protection.

## Dosage and Administration

Ascorbic acid is usually administered orally.

- Scurvy - In adults, administration of 100–250 mg of ascorbic acid 1–2 times daily for several days will reverse the skeletal changes and hemorrhagic disorders associated with scurvy within 2 days to 3 weeks. A maintenance dose of 50mg/day is required thereafter.
- Prevention of deficiency in poor nutritional habits or increased requirements  
Adults: 45 -60mg daily.
- Pregnancy and breastfeeding: at least 60-80mg daily.
- Potentiation of methanamine in Urine acidification: Adults; 4 -12gm in divided doses.
- Adjunctive therapy in the treatment of idiopathic methemoglobinemia: Adults: 100 -200mg per day.
- To increase iron excretion resulting from deferoxamine: Adults; 100 -200mg daily
- Prevent and treat common cold: Adults; 1 – 3g or more per day.

## Adverse Effects and Precautions:

Ascorbic acid is usually well tolerated. Large doses are reported to cause diarrhoea and other gastrointestinal disturbances. It has also been stated that large doses may result in hyperoxaluria and the formation of renal calcium oxalate calculi and ascorbic acid should therefore be given with care to patients with hyperoxaluria. Tolerance may be induced with prolonged use of large doses, resulting in symptoms of deficiency when intake is reduced to normal. Prolonged or excessive use of chewable vitamin C preparations may cause erosion of tooth enamel. Large doses of ascorbic acid have resulted in haemolysis in patients with G6PD deficiency.

## Pregnancy and Lactation:

Ascorbic acid is recommended for use in pregnancy and breastfeeding, see dosage indicated above. However large doses in during pregnancy may result in scurvy in neonates.

## Drug Interactions:

Use with sulfonamides may cause crystallization, Maintains iron in the ferrous state and increases its absorption in the GI tract, Increases intensity and duration of anticoagulant effect of Dicuramol, may inhibit Warfarin anticoagulant effect, Salicylates inhibit ascorbic acid uptake. Acidic drugs in large doses may lower urine pH, causing renal tubular reabsorption of acidic drugs. Basic drugs e.g. amphetamines or tricyclic antidepressants may cause decreased reabsorption and therapeutic effect.

## Overdose and treatment:

**Overdose:** High intake of ascorbic acid can cause gastrointestinal problems such as diarrhea or vomiting, dehydration, electrolyte imbalances, fatigue, low urine output, low blood pressure and increased risk of developing kidney stones.  
**Treatment:** Cease intake of ascorbic acid / treatment of underlying conditions.

## Presentation:

Blister pack of 10 x 10's in a unit carton and HDPE jars of 1000 tablets.

## Storage:

Store in a dry place, below 30°C, Protected from light.  
Keep all medicines out of reach of children.

## Manufactured By:



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