Vitamin C (Antiscorbutic, Ascorbic acid)

It is a water soluble vitamin, deficiency of which leads to scurvy.

Physiological action

1. Formation of collagen.
2. Increases the absorption of iron by reducing ferric to ferrous form.
3. Strong reducing agent; Antioxidant.
4. Supports wound healing.

Sources

- Water soluble vitamin so cooking makes 50% loss
- Fresh Vegetables, Green leafy, pulses.
- Indian Gooseberry, Guava, Berrys.
- Animal Food like milk and meat contain only little
- If the potatoes are boiled with the skin, the vitamin diffuses into deep layers.
- Daily Requirement → 30-40 mg/day.
- Body cannot store them for long time.

Scurvy → Deficiency of Vitamin C.

Risk factors:

- Babies fed on cows milk for more than 1 year.
→ Alcholism, tea drinking, smokers, pregnancy and thyrotoxicosis, malabsorption.

Clinical Features

→ Classical scurvy is seen only here. Frequently in India as Indian diet contains small amount of Vit. C,

- Usually starts as lassitude, weakness and normocytic normochromic anemia.

Haemorrhages → Bleeding and spongy gums

↓ → Easily bruised and bleeding

Subperiosteal hemorrhage → Poor wound healing; Bleeding under nails.

Teeth → Lost and injured.

Hair → Corkscrew appearance, since the Follicles are obstructed.

Normocytic Normochromic anemia.

Treatment → It could be fatal and cause sudden death.

→ 500 mg in Adult upto 4 g.

Prevention → 500 mg once a month.

Adverse effects → If more than 3 g/day

→ Digesting upsets and hypoglycemia,

→ Oxaluria and oxalate stone formation in Urinary tract.