ZINC

- Present throughout the body, mostly inside skeletal muscles and bones
- Plays an important role in immunity

**Zinc Deficiency**

Serum zinc levels can be misleading. Risk factors for zinc deficiency include chronic pancreatic disorders, pregnancy, malabsorption syndrome, long-term parenteral nutrition support, chronic diarrhea, and irritable bowel disease (IBD).

The role of zinc in diabetes mellitus is like a double-edged sword. Zinc excretion is increased in diabetes mellitus, leading to impaired immune function; however, supplementation may worsen the glycemic control.

**Role of Zinc Supplementation**

- Zinc supplementation can enhance growth, especially in children with zinc deficiency.
- Multiple studies have documented the beneficial role in reducing infection in both respiratory and GI infection-related morbidity and mortality in children and the elderly.
- It is frequently used as part of the treatment for the common cold.
- Reduces risks of premature or prolonged labor, premature birth, etc.
- Improves fetal bone growth and sperm counts.
- May protect against cancer.
- Chronic high-dose zinc supplementation can lead to copper deficiency.

Preventative zinc supplementation improves morbidity and mortality due to diarrhea, pneumonia, and malaria in developing countries.