

Zinc and Health

Zinc is necessary for more than 300 enzymatic reactions in the body. Here is a list of some of them:

- Preserves a healthy immune response to prevent colds.
- Protects against prostate cancer.
- Prevents degenerative processes like arthritis, cardiovascular disease, premature aging and cancer.
- Zinc also has key roles in metabolizing alcohol and repairing damaged DNA.
- Regulating blood pressure (it is a cofactor in angiogenesis-converting enzyme)
- It is necessary for protein digestion as the peptidase enzymes do not work without it.
- Zinc also increases mucin production which protects the stomach from ulcers.
- It is necessary to convert proteins to glucose when the blood sugar gets low.
- Fatty acid metabolism requires zinc in order to produce essential fats needed in many cellular activities (cofactor in delta 6 desaturase enzyme).
- Zinc is key in insulin production and utilization, and is contained within the insulin molecule.
- Zinc is required in the conversion of thyroid hormone T4 to T3.
- It is also a factor in removing oxygen radicals and so is considered a primary antioxidant. Zinc is part of the super oxide dismutase enzyme systems.
- Zinc is antagonistic to heavy metals and helps with detoxification of mercury, cadmium, and lead.
- Zinc also blocks the enzyme that converts testosterone to dihydroxytestosterone and so is helpful in preventing and reducing benign prostatic hypertrophy.
- Zinc is necessary for sperm motility and formation. With inadequate zinc levels, men can have low testosterone and low sperm counts.
- Zinc blocks the aromatase enzyme that converts testosterone to estrogen. Thus in men with feminizing symptoms or who can't build muscle, zinc may be low.
- The highest concentration of zinc in the male body is in the prostate gland.
- With low levels of zinc a person loses a sense of taste.

People should be checked for zinc deficiency, especially people with acne, delayed wound healing, depression, hearing problems, fatigue, frequent infections, night blindness, light sensitivity, hair or nail problems (brittleness or white spots), and sexual problems.

Modern diets have reduced amounts of zinc compared to times past. The average daily intake has reduced from 43.4 to 12.5 mg per day. So zinc deficiency is commonly found when looked for in many patients.