

## ZINC

### Sources Of Zinc

**Seafood** - oysters, herring

**Meats** - beef, lamb, beef and pork liver

**Nuts/seeds** - sunflower, pumpkin

**Dairy** - cheese

**Grains** - wheat germ

**Miscellaneous** - brewer's yeast, maple syrup, bone meal, gluten, tea

### Roles In The Body

Activator of many key enzymes

Growth and development

Male reproductive system

Insulin production and secretion

### Functions Of Zinc

Circulatory - maintenance of artery walls

Respiratory - removal of carbon dioxide and maintenance of acid-base balance

Digestive - production of digestive enzymes, and normal liver function

Nervous - essential for brain development and neurotransmitters

Special senses - appetite regulation, smell and taste

Reproductive - testes, ovaries, prostate, male fertility

Endocrine - insulin and pituitary gonadotropin secretion

Blood - red blood cells and blood proteins

Skeletal - bone integrity, prevention of osteoporosis

Skin - required for normal integrity of hair, nails, and skin

Protective - required for wound healing and integrity of the immune system

Metabolic - normal carbohydrate and protein metabolism

Detoxification - assists in removing toxic accumulation of cadmium and copper

Psychological - powerful mood stabilizer and 'sedative' mineral

### Symptoms Associated With Zinc Deficiency

Fatigue; hypoglycemia; hypothyroidism; carbohydrate intolerance; impotence; lack of taste and smell; low appetite; diabetes; nervousness; poor wound healing; prostate problems

### Symptoms Associated With Zinc Excess

Anemia, iron deficiency nausea depression vomiting diarrhea

**Synergetic Nutrients** magnesium, vitamin A, D, E, B6, high-protein diet

**Antagonistic Nutrients Absorption** - copper, cadmium, iron, chromium, manganese, selenium, phytic acid, soy, cereals. **Metabolic** - copper, iron, cadmium

*This material is for educational purposes only*

*The preceding statements have not been evaluated by the Food and Drug Administration*

*This information is not intended to diagnose, treat, cure or prevent any disease.*

*Copyright © 2005 - The Eck Institute of Applied Nutrition and Bioenergetics, Ltd.*