

What zinc does

Zinc is in every cell in the body. It is involved in more enzymatic functions than any other mineral. It is essential for healthy skin, immune function, sensory function and many hormone actions.

Zinc deficiency

Zinc deficiency may arise from poor diet or a range of conditions such as liver disease, inflammatory bowel disease, diarrhoea, coeliac disease, anorexia nervosa, fad diets, old age, chronic blood loss, burns, diabetes, alcoholism, or mineral imbalance such as too much calcium or iron relative to zinc.

Increased daily zinc intake may be necessary in old age, pregnancy and lactation, oral contraceptive use, during growth spurts and in puberty.

Severe zinc deficiency is rare. Mild deficiency may cause no obvious symptoms, but still be prejudicial to long-term health. Some of the signs and symptoms are listed below:

- Impaired taste and smell
- Poor sight in low light
- Macular degeneration
- Tiredness
- Hair loss
- Psychiatric illness
- Diarrhoea
- Loss of appetite
- Enlarged liver
- Immune disorders

Food sources of zinc

	mgs per 100 grams		mgs per 100 grams
Oysters	148.7	Wholemeal bread	2.0
Ginger root	6.8	Haddock	1.7
Pumpkin seeds	6.5	Green peas	1.6
Tahini paste	5.5	Chick peas	1.4
Lamb	5.3	Haddock	1.7
Pecan nuts	4.5	Dried figs	0.8
Dried split peas	4.2	Baked beans	0.7
Brazil nuts	4.2	Dried dates	0.3
Cheddar cheese	4.0	Potatoes, boiled	0.2
Peanut butter	3.0	Orange	0.2
Almonds	3.0	Raisins & Sultanas	0.1

Absorption and bio-availability

Zinc absorption is helped by stomach acid, vitamins A, E and B6, magnesium, calcium and phosphorus. It is also made more available to the body by the presence of amino acids, so the zinc in fish, meat and eggs is better absorbed than zinc from plant sources.

Zinc absorption is impaired by phytates (eg in wheat), oxalates (rhubarb and spinach), high calcium intake, copper, low protein intake, excess sugar, stress and alcohol.

The enzymatic action of yeast reduces the level of phytates in foods therefore leavened whole grain breads have more usable zinc than unleavened whole grain breads.

References

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Holford, P (2004) *New Optimum Nutrition Bible*. London: Piatkus.

Murray, M T (2001) *Encyclopaedia of Nutritional Supplements*. New York: Three Rivers Press.