



Zinc	
Description	Zinc is an essential trace mineral.
Function	Zinc is an important part of many enzymes, some of which have key roles in the formation of new proteins - one of the processes involved in tissue growth. Zinc is required to aid growth of the immune cells plus maintenance of hair, skin and nails. Superoxide dismutase (a powerful antioxidant enzyme that neutralises potentially damaging free radicals) requires zinc.
Human Requirements	EU RDA: 15mg
Dietary Intake¹	In the UK, the average adult daily diet provides: for men, 10.2mg; for women, 7.4mg.
Food Sources	Red meat, liver, shellfish (especially oysters), egg yolks, dairy products, wholegrain cereals and pulses.
Deficiency Symptoms¹	Signs of mild to moderate deficiency include growth retardation, male hypogonadism, poor appetite, rough skin, mental lethargy, delayed wound healing and impaired taste. Severe zinc deficiency symptoms include alopecia (hair loss), diarrhoea, dermatitis, psychiatric disorders, weight loss, infection (due to impaired immune function), hypogonadism in males, and poor ulcer healing. Maternal zinc deficiency before and during pregnancy may lead to growth retardation and congenital abnormalities in the foetus.
Precautions / Contra-Indications	Those people with liver damage or an intestinal disorder should consult their doctor first. Safe Upper Level: 25mg ²
Pregnancy & Breastfeeding	Zinc is suitable to be taken at recommended daily doses during pregnancy and breastfeeding.
Adverse Effects¹	Signs of acute toxicity (doses >200mg daily) include gastrointestinal pain, nausea, vomiting and diarrhoea. Prolonged exposure to doses >50mg daily may induce copper deficiency and iron deficiency. Doses >150mg daily may reduce serum HDL levels, depress immune function and cause gastric erosion.
Interactions¹	High doses of zinc upset absorption of iron, folic acid and copper. Zinc may also decrease the absorption of some antibiotics.
References	<ol style="list-style-type: none"> 1. Mason, P. Dietary Supplements. Pharmaceutical Press, London, 2001. 2. Expert Group on Vitamins and Minerals, 2003.