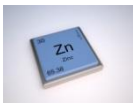
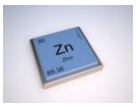
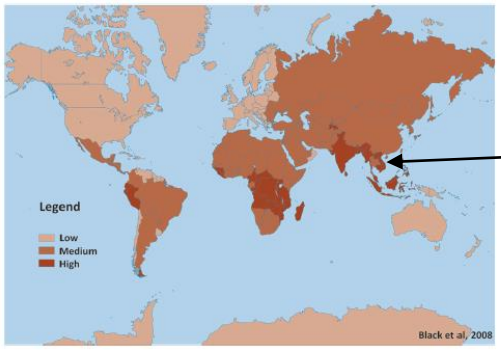


Zinc



Zinc is present in all body tissues and fluids. Zinc plays a role in many parts of the body. Zinc is important for the metabolism of carbohydrates, lipids, proteins and other micronutrients. Zinc stabilizes the molecular structure of cellular components and membranes and in this way contributes to the maintenance of cell and organ integrity. Zinc plays a central role in the immune system. Zinc is also important in wound healing, DNA synthesis and cell division. Zinc also supports normal growth and development during pregnany, childhood and adolescence and is required for our taste and smell.

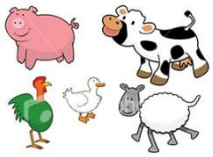
More than 50% of Vietnamese women and children have marginal zinc concentrations, as assessed by international standards. Another study showed that zinc concentrations in Vietnamese children were low by international standards, and that 52% are at risk of zinc deficiency.



Vietnam has a 'High' level of Zinc deficiency

Sources of Zinc:

Zinc cannot be stored in the body, so it is important to get a daily dose of Zinc through your food or supplements if necessary. Really good animal sources of zinc are oysters, beef, pork, chicken, crab, milk, yoghurt and eggs. Dried watermelon seeds, peanuts, peas and beans are good plant sources of zinc. Animal sources of zinc are easier to absorb than plant forms.



Zinc Deficiency:

The clinical features of severe zinc deficiency in humans are:

1. growth retardation,
2. delayed sexual and bone maturation,
3. skin lesions,

Skin Lesions

4. diarrhea,
5. alopecia (where your hair falls out)
6. impaired appetite,
7. increased susceptibility to infections because of changes in the immune system and
8. the appearance of behavioural changes

Acute diarrhea is associated with high rates of mortality among children in developing countries. Zinc deficiency causes alterations in immune response that probably contribute to increased susceptibility to infections, such as those that cause diarrhea, especially in children. Studies show that poor, malnourished children in India, Africa, South America, and Southeast Asia experience shorter courses of infectious diarrhea after taking zinc supplements.

Infants, children, adolescents and pregnant women suffer most from an inadequate zinc intake. People with gastrointestinal and other diseases are also at risk of deficiency because they are unable to absorb zinc from their gastrointestinal tract. Vegetarians are at risk of zinc deficiency because they do not consume animal sources of this mineral.

What to do if you are Zinc deficient:

Zinc deficiency is often found in people that have other vitamin and mineral deficiencies, including iron. If you have any symptoms of zinc deficiency, you should go and talk to a doctor.

You should try to increase the amount of zinc in your diet, through eating foods that are high in zinc. You can also drink fortified milk, or nutrition shakes like Ensure.

You might need to take zinc supplements. But remember, that zinc cannot be stored in the body, so if you are not consuming enough zinc in your diet, your deficiency will not be fixed forever by taking supplements. The supplements will cure the deficiency in the short-term, but then you need to make sure that you are getting enough zinc in your diet.

Too much Zinc:

Zinc is a heavy metal, and if you have too much of it, it can cause toxicity. Having 200-800mg/day of zinc can cause abdominal pain, nausea, vomiting and diarrhea. Other symptoms can be headach, irritability, lethargy, anaemia and dizziness. Prolonged intake of zinc ranging from 100 to 150 mg/day interferes with copper metabolism and causes low copper status, reduced iron function and reduced immune function.