

Zinc Fact Sheet

Zinc is an essential mineral that is naturally present in some foods, added to others, and is available as a dietary supplement. Zinc is required for many important functions in the body and plays a vital role in supporting healing, immune health, growth, and long-term health and wellbeing.

For people with coeliac disease, zinc status can be affected because zinc is absorbed throughout the small intestine, mostly from the proximal jejunum, which is the area commonly damaged in untreated coeliac disease. When the intestinal villi are damaged due to ongoing gluten exposure, the absorption of zinc and other nutrients may be reduced. A low zinc level at the time of diagnosis can sometimes indicate more advanced intestinal damage or malabsorption.

Zinc is involved in the activity of more than 100 enzymes and is essential for immune function, cell division, growth and development, wound healing, DNA synthesis, and the metabolism (or breakdown) of carbohydrates in your food. It also contributes to normal taste and smell. During pregnancy, infancy, childhood, and adolescence, adequate zinc intake is especially important to support healthy growth and development. Even mild zinc deficiency in children can impair growth and may increase the risk of infections, diarrhoea, and respiratory illnesses.

The body does not have a specialised storage system for zinc, so a regular daily intake is required. Fortunately, zinc deficiency is usually not a long-term problem once a strict gluten-free diet is commenced and the intestinal villi begin to heal. As the intestine recovers, nutrient absorption generally improves, including the absorption of zinc.

Usual Diet Sources

Good dietary sources of zinc include oysters, red meat, poultry, seafood such as crab and lobster, dairy foods, nuts, seeds, legumes, and wholegrains. While wheat germ and zinc-fortified wheat-based breakfast cereals are rich sources of zinc, these foods are removed on a gluten-free diet. However, there are still many naturally gluten-free foods that provide adequate zinc.

Animal-based foods generally provide zinc that is more easily absorbed than zinc from plant foods. Therefore, a good meat intake when zinc levels are poor, is the most efficient way to increase zinc.

In plants- phytates, naturally present in legumes, grains, nuts, and seeds, can bind zinc and reduce its absorption. For this reason, vegetarians and vegans may require up to 50% more zinc than the recommended intake due to the lower bioavailability of zinc from plant-based foods.

FOR FURTHER INFORMATION

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Recommended intake

Age	Male	Female	Pregnancy	Lactation
0-6 months	2 mg	2 mg		
7-12 months	3mg	3 mg		
1-3 years	3 mg	3 mg		
4-8 years	5 mg	5 mg		
9-13 years	8 mg	8 mg		
14-18 years	11 mg	9 mg	12 mg	13 mg
19+ years	11 mg	8 mg	11 mg	12 mg

Techniques to increase zinc bioavailability and absorption include soaking beans, grains, and seeds in water for several hours before cooking them and allowing them to sit after soaking until sprouts form¹. Leavening also partially breaks down the phytate, so vegetarians can also increase their zinc intake by consuming more leavened grain products (such as bread) than unleavened products (such as crackers) since the body absorbs more zinc from leavened grains than unleavened grains.

Zinc supplements are also available in the form of capsules and tablets. However, the tolerable upper limit for zinc is 40 milligrams for males and females over 18 years. Taking too much zinc may cause side-effects. It has been proven time and again that isolating certain nutrients in supplement form will not provide the same health benefits as consuming the nutrient from a whole food. First focus on obtaining your daily zinc requirement from foods, then use supplements as a backup only if required. It has been concluded that zinc can reduce the duration and severity of cold symptoms which is why zinc can also be found in some cold lozenges and over-the-counter cold remedies. Discuss any supplementation with your healthcare team.

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Selected Food Sources of Zinc

Food Per Average Serving Size	Calcium (mg)
Oysters, 100g	11-20
Crab, 100g	6.42
Beef (steak, cooked), 100g	5-7
Minced meat or lamb (cooked), 100g	4-5
Pumpkin seeds (pepitas), 30g	1.95
Sardines (canned in oil, drained), 100g	1.89
Cheese (cheddar), 40g	1.39
Milk (reduced fat - 1% fat), 1 cup, (250ml)	0.95
Peanuts, 30g	0.9
Egg, 1 large egg	0.6
Rice (white, long-grain), ½ cup cooked	0.6
Quinoa, ½ cup (boiled)	0.5-0.8
Hummus (chickpea), 50g	0.5-0.7

References

Nutrient Reference values for Australia and New Zealand. [Zinc | Eat For Health](#)

Australian Food Composition Database - Release 3.0

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