

What Can I Do?

Speak with your physician about your zinc levels. Individuals with thalassemia should have blood drawn once a year in order to monitor essential micronutrient levels, which includes zinc.

Identify zinc-rich foods that you enjoy and incorporate them into your diet. Substitute zinc-rich snacks such as nuts or yogurt in place of empty calories like chips or pastries.

If you are asked by a physician to take a zinc supplement, make sure to take it every day. When nutritional deficits are not corrected, they can have harmful health effects and increase the risk of long term health complications.

Once your zinc levels have improved, your physician may talk to you about continuing an iron free multivitamin with zinc, and a dietician may advise you about how to best incorporate zinc-rich foods into your diet to prevent future deficiency.

Regardless of whether or not you are taking zinc supplements, make sure to adhere to your chelation therapy. Your physician will work with you to optimize your chelation while maintaining a favorable zinc status.



For more information about zinc, please visit:

<http://www.izincg.org/>

<https://ods.od.nih.gov/factsheets/Zinc>

For more information about nutrition and its role in thalassemia, please visit our website:

<http://www.thalassemia.com>

ZINC

*An Informational Pamphlet for Patients
with Thalassemia*




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Why is Zinc Important?

Zinc is an essential micronutrient. This means that the body requires zinc in small amounts, and most of it will come from the food you eat. Zinc serves many vital functions; it helps the immune system and plays crucial roles in cell division, energy and bone metabolism, and even our sense of taste.

Zinc deficiency has been shown to be involved in conditions such as:

- ✚ Delayed puberty
- ✚ Slowed growth
- ✚ Diabetes
- ✚ Low bone strength
- ✚ Weakened immune function

Zinc is particularly important to individuals with thalassemia who are receiving transfusions.

Total food intake in individuals with thalassemia may be lower than in people without thalassemia.

With less overall food intake, the quality of the food being eaten is very important. Eating “empty” calories, or foods with little nutritional value, can quickly contribute to the deficiency of essential micronutrients. Because of this, it is recommended to both have blood drawn every year to ensure that there are no nutritional deficiencies, and to consume a diet rich in micronutrients.

How Much Do I Need?

Recommended Dietary Allowance for Zinc:

	<u>Male</u>	<u>Female</u>
4-8 years	5 mg	5 mg
9-13 years	8 mg	8 mg
14-18 years	11 mg	9 mg
≥19 years	11 mg	8 mg

Healthy adults need 8-11 mg of zinc every day. With the large intake of red meat, seafood, and poultry, zinc is abundant in the American diet. Despite this, studies have shown that between 20 to 80 percent of individuals with beta thalassemia receiving regular blood transfusions are zinc deficient.

Why some individuals with thalassemia need more zinc than they get from their diet is not certain. The innate requirements for zinc might be higher, zinc may be lost in urine, or other conditions may affect the body's ability to absorb zinc. If you are tested and found to be low in zinc, your physician may discuss taking a daily multivitamin with zinc, or a separate zinc supplement. To maximize absorption, supplements should be taken two hours before or after a meal. However, if the zinc supplement is causing stomach discomfort, it may be taken with a meal.

While it is important to keep zinc levels normal, it is also important not to have too much. Too much zinc may affect the absorption of other important micronutrients (such as copper) and may cause nausea and vomiting. If you are taking a zinc supplement, be sure not to take more than your prescribed number of pills in a day.

Where Can I Find Zinc?

Zinc is present in a number of foods such as seafood, poultry, red meat, legumes, and nuts.

Eating a well-balanced, zinc rich diet that includes meat, fruits, nuts, and vegetables is beneficial to your health, and most likely will not significantly contribute to your iron levels.

Here is a list of popular foods that contain zinc:

Food	mg per serving	Percent DV*
Oysters	38-74 mg per 3 oz	253%-493%
Crab	6.5 mg per 3 oz	43%
Beef Patty	5 mg per 3 oz	33%
Peanuts, dry roasted	3.5 mg per 3oz	23%
Chicken (dark meat)	3 mg per 3 oz	20%
Swiss cheese	3 mg per 3 oz	20%
Pork Chop	3 mg per 3 oz	20%
Almonds	3 mg per 3 oz	20%
Cashews	2.5 mg per 3 oz	17%
Baked beans	2 mg per ½ cup	13%
Yogurt	1.5 mg per 8oz	10%
Chickpeas	1 mg per ½ cup	7%
Milk, low fat	1 mg per 1 cup	7%
Chicken Breast (white meat)	1 mg per ½ breast	6%

*The DV (daily value) for zinc is 15 mg.