

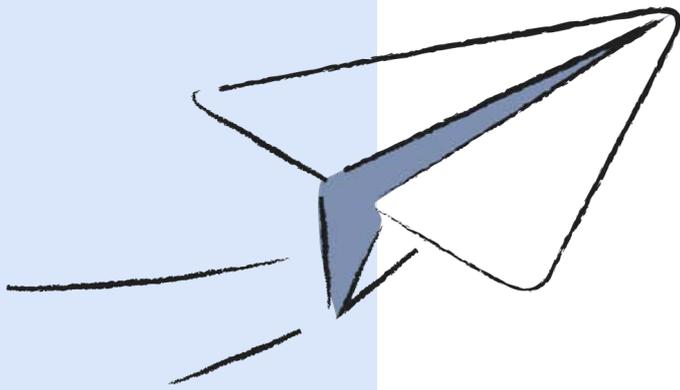


Paloma

Quick Guide: Selenium



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A note from Paloma Health

Paloma Health is the first online medical practice focused on hypothyroidism. We offer at-home blood tests, live video visits with thyroid specialists, & prescription management.

In this guide, learn about selenium's relationship to Hashimoto's, nutritional guidelines, & suggested food sources.

Selenium

Selenium is a trace mineral that is essential to many of the body's regulatory and metabolic functions. It has antioxidant properties and plays a critical role in reproduction, DNA production, metabolism, immune function and thyroid health. Studies have also shown an association between low levels of selenium with increased risk for cancer, cardiovascular disease, cognitive decline, obesity and thyroid disease.

SELENIUM AND HASHIMOTO'S DISEASE

The thyroid gland houses more selenium than any other tissue in the body and selenium is a key component of "selenoproteins" like iodothyronine deiodinases, glutathione peroxidases and thioredoxin reductases, which are enzymes involved in thyroid hormone metabolism and the antioxidant defense of the thyroid gland. In fact, research suggests that selenium deficiency may be an environmental trigger for Hashimoto's disease. Consistently meeting your selenium needs is this particularly important for Hashimoto's patients.

NUTRIENTS GUIDELINE

Although the Recommended Dietary Allowance* (RDA) for selenium is 55 micrograms (mcg) per day, research suggests that higher intake may support optimal health, particularly in patients with Hashimoto's. Aim for ~200mcg daily from food and/or supplements, as this may help reduce thyroid peroxidase antibodies and improve symptoms associated with the condition.

Selenium is naturally found in many foods such as grains, meat, poultry, fish, and eggs, but amounts depend on the selenium concentration of soil and water. Selenium is also available in many multivitamins or as a stand-alone supplement. Look for supplements containing selenomethionine, which is better absorbed than other forms like selenite and selenate.

Keep in mind that consuming too much selenium can cause toxicity. Symptoms of selenium toxicity include garlic breath, nausea, diarrhea, and skin rash, as well as hair and nail loss. The Tolerable Upper Intake Level (UL) for adults is 400 micrograms (mcg) per day.



FOOD SOURCES OF SELENIUM

FOOD	SERVING SIDE:	% DAILY VALUE
Brazil nuts**	1 oz	777%
Tuna, yellowfin	3 oz	131%
Halibut	3 oz	67%
Sardines	3 oz	64%
Ham	3 oz	60%
Shrimp	3 oz	57%
Beef (steak)	3 oz	47%
Turkey	3 oz	44%
Beef liver	3 oz	40%
Chicken	3 oz	31%
Cottage cheese	1 cup	29%
Brown rice	1 cup	27%
Beef (ground)	3 oz	26%
Egg	1 egg	21%
Fortified cereal	1 cup	21%
Baked beans	1 cup	19%

**Brazil nuts contain very high amounts of selenium (68–91 mcg per nut) and can cause selenium toxicity if consumed regularly.

1. Selenium Fact Sheet for Health Professionals. National Institutes of Health website. <https://ods.od.nih.gov/factsheets/Selenium-HealthProfessional/> Updated September 26, 2018. Accessed March 14, 2019.
2. Wentz I. Supporting a Patient with Hashimoto's Thyroiditis through Nutrition. The Integrative RDN. 2015; 8(2): 30–35.
3. Ventura M, Melo M, Carrilho F. Selenium and Thyroid Disease: From Pathophysiology to Treatment. Int J Endocrinol. 2017; 2017: 1297658.
4. Zelman K. Selenium. Food & Nutrition Magazine. 2018; November/December; 14.