

SELENIUM

Selenium is an essential trace mineral, which means that it isn't endogenously produced in the body, which only requires a small amount of it. It may be obtained from food or via supplementation. Selenium is an essential component of various enzymes and proteins, called selenoproteins. These proteins help to make DNA, protect against cell damage and infections, while assisting in the regulation of reproduction and thyroid hormone metabolism. Most selenium in the body is stored in muscle tissue, although the thyroid gland houses the largest concentration of selenium due to its contribution to thyroid function (2). Selenium is heralded for its anti-oxidant capabilities, it forms a portion of anti-oxidant enzymes such as glutathione, conferring protective effects (1).

Selenium may help lower the risk of certain cancers. This has been attributed to selenium's ability to reduce DNA damage and oxidative stress, boost your immune system, and kill cancer cells (3). A review of 69 studies that included over 350,000 people found that having a high blood level of selenium was associated with a lower risk of certain types of cancer, including breast, lung, colon, and prostate cancers (4).

Food Sources

The amount of selenium in foods can vary widely depending on the selenium content of the soil in which it is grown, which varies widely by region. Plant foods obtain selenium from soil, which will then affect the amount of selenium in animals eating those plants. Seafood, animal meat, especially organ meats, and Brazil nuts are among the richest sources of selenium (2).

Dosage Rationale

The Recommended Dietary Allowance (RDA) for adult men and women 19+ years of age is 55 micrograms (mcg) daily (2). Taking more than needed, however, can cause oxidative damage and may be pro-diabetic (1). Hence, we opted for 55 mcg in our Super U formula to meet the daily recommendation while avoiding a copious dosage likely to foster deleterious side effects.

REFERENCES

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