

Vitamin C

Also known as ascorbic acid, [vitamin C](#) is a water-soluble vitamin and essential micronutrient. The human body cannot produce vitamin C, so it must be obtained from dietary sources, primarily fruits and vegetables.

Vitamin C is used in the body to support [immune health](#), as an [antioxidant](#), and to assist in the formation of [collagen](#) (a structural component of bones, joints, ligaments, tendons, hair, skin, and nails). Vitamin C also enhances the absorption of nonheme iron, a form of iron that is less readily absorbed in the gastrointestinal tract.

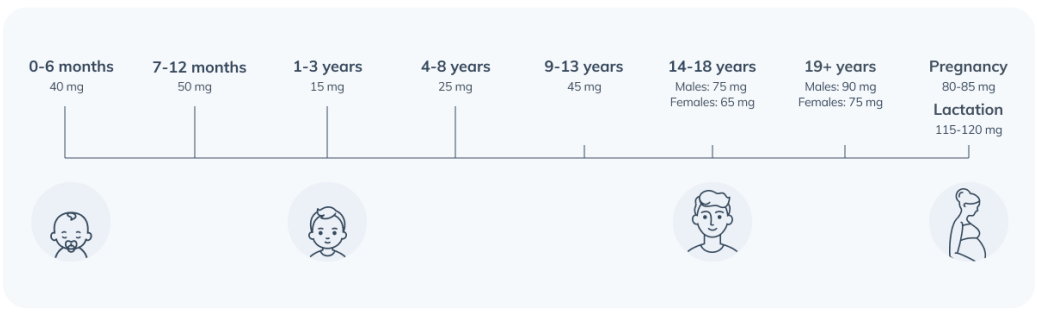
Health benefits of vitamin C

- Improving risk factors of cardiovascular disease (e.g., [blood pressure](#), endothelial function)
- Promoting collagen formation and neutralizing damage to skin cells
- Regulating [blood glucose](#) (sugar) levels in individuals with diabetes
- Slowing the progression of ocular conditions (e.g., cataracts, macular degeneration)
- Supporting [cognitive health](#); low vitamin C levels have been found in individuals who are cognitively impaired
- Supporting immune function; preventing and treating upper [respiratory tract infections](#) (e.g., the common cold)



Recommended daily intake of vitamin C

The following timeline provides the daily Recommended Dietary Allowance (RDA) and Adequate Intake (AI) of vitamin C for various populations.

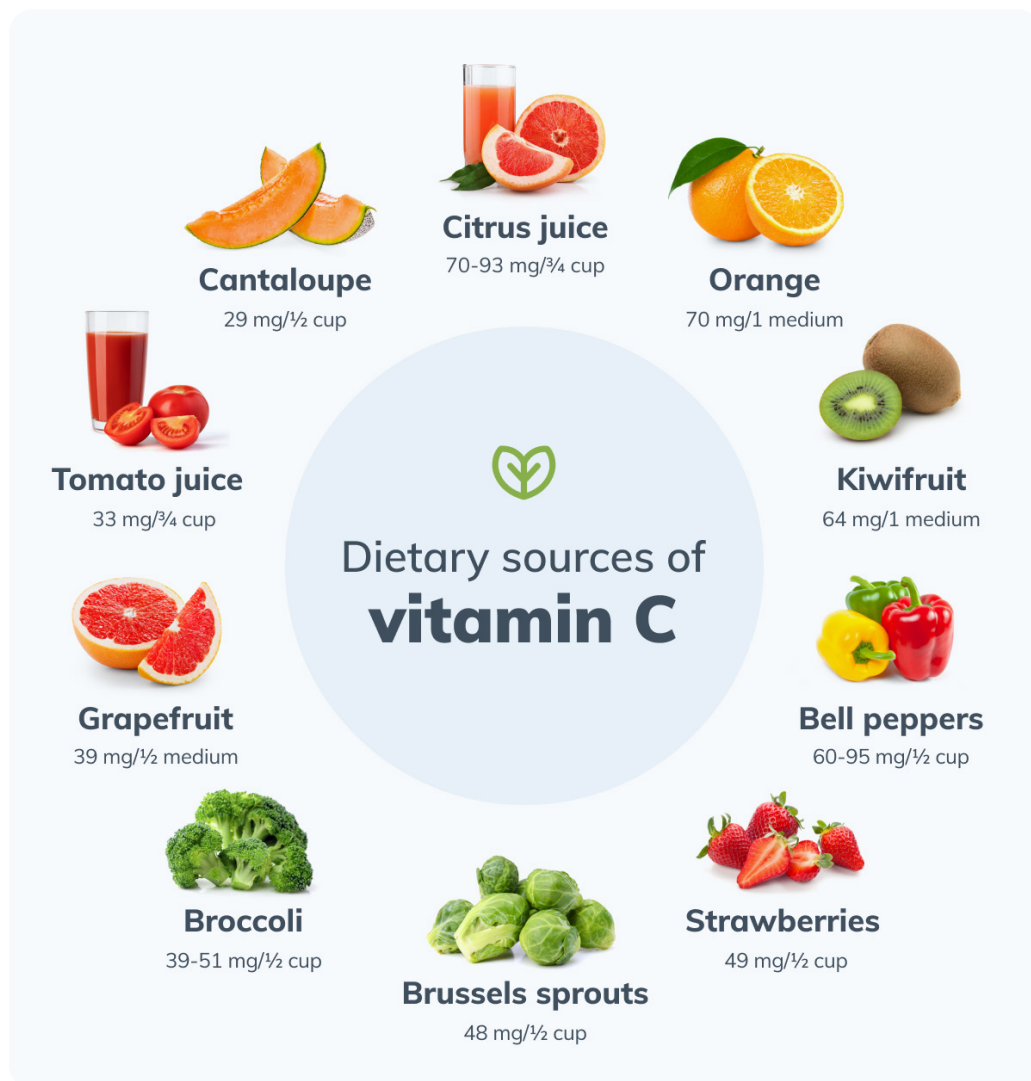


Note: Individuals who smoke require an additional 35 mg per day of vitamin C.



Dietary sources of vitamin C

The quantities of vitamin C provided below are based on the typical serving sizes for each source. Quantities may vary depending on brand and preparation methods.





References

1. Abdullah, M., Jamil, R. T., & Attia, F. N. (2021). Vitamin C (ascorbic acid). In StatPearls. StatPearls Publishing. <https://www.ncbi.nlm.nih.gov/books/NBK499877/>
2. Carr, A. C., & Maggini, S. (2017). Vitamin C and immune function. *Nutrients*, 9(11).
3. Grosso, G., Bei, R., Mistretta, A., Marventano, S., Calabrese, G., Masuelli, L., ... & Gazzolo, D. (2013). Effects of vitamin C on health: A review of evidence. *Frontiers in Bioscience*, 18, 1017–1029.
4. Lynch, S. R., & Cook, J. D. (1980). Interaction of vitamin C and iron. *Annals of the New York Academy of Sciences*, 355, 32–44.
5. Moser, M. A., & Chun, O. K. (2016). Vitamin C and heart health: A review based on findings from epidemiologic studies. *International Journal of Molecular Sciences*, 17(8).
6. Office of Dietary Supplements. (2021, March 26). Vitamin C. National Institutes of Health. <https://ods.od.nih.gov/factsheets/VitaminC-HealthProfessional/>
7. Pullar, J. M., Carr, A. C., & Vissers, M. C. M. (2017). The roles of vitamin C in skin health. *Nutrients*, 9(8).
8. Tabatabaei-Malazy, O., Nikfar, S., Larijani, B., & Abdollahi, M. (2014). Influence of ascorbic acid supplementation on type 2 diabetes mellitus in observational and randomized controlled trials; A systematic review with meta-analysis. *Journal of Pharmacy & Pharmaceutical Sciences*, 17(4), 554–582.
9. Travica, N., Ried, K., Sali, A., Scholey, A., Hudson, I., & Pipingas, A. (2017). Vitamin C status and cognitive function: A systematic review. *Nutrients*, 9(9).



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This handout was developed and medically reviewed by Fullscript's Integrative Medical Advisory team.

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