

Vitamin C

What is vitamin C?

Vitamin C, also known as ascorbic acid, is a water-soluble vitamin and essential micronutrient. As humans, we cannot produce vitamin C in the body, 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 anti-oxidant, 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 non-heme iron, a form of iron that is less readily absorbed in the gastrointestinal tract.

Health benefits of vitamin C

Studies have demonstrated that vitamin C may have numerous beneficial effects, including:

- Supporting immune function; preventing and treating upper respiratory tract infections (e.g., the common cold)
- Improving risk factors of cardiovascular disease (e.g., blood pressure, endothelial function)
- 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
- Regulating blood glucose (sugar) levels in individuals with diabetes
- Promoting collagen formation and neutralizing damage to skin cells



Recommended daily intake of vitamin C

The following table provides the daily recommended dietary allowance (RDA) and adequate intake (AI) of vitamin C for various populations.

Age	Male	Female	Pregnancy	Lactation
0-6 months	40 mg	40 mg		
7-12 months	50 mg	50 mg		
1-3 years	15 mg	15 mg		
4-8 years	25 mg	25 mg		
9-13 years	45 mg	45 mg		
14-18 years	75 mg	65 mg	80 mg	115 mg
19+ years	90 mg	75 mg	85 mg	120 mg

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

Source: National Institutes of Health Office of Dietary Supplements

Dietary sources of vitamin C

The following table outlines various dietary sources of vitamin C.

Dietary source	Serving size	Quantity of vitamin C per serving size
Citrus juice (e.g., grapefruit, orange)	¾ cup	70-93 mg
Orange	1 medium	70 mg
Kiwifruit	1 medium	64 mg
Bell peppers	½ cup	60-95 mg
Strawberries	½ cup	49 mg
Brussels sprouts	½ cup	48 mg
Broccoli	½ cup	39-51 mg
Grapefruit	½ medium	39 mg
Tomato juice	¾ cup	33 mg
Cantaloupe	½ cup	29 mg

Source: National Institutes of Health Office of Dietary Supplements