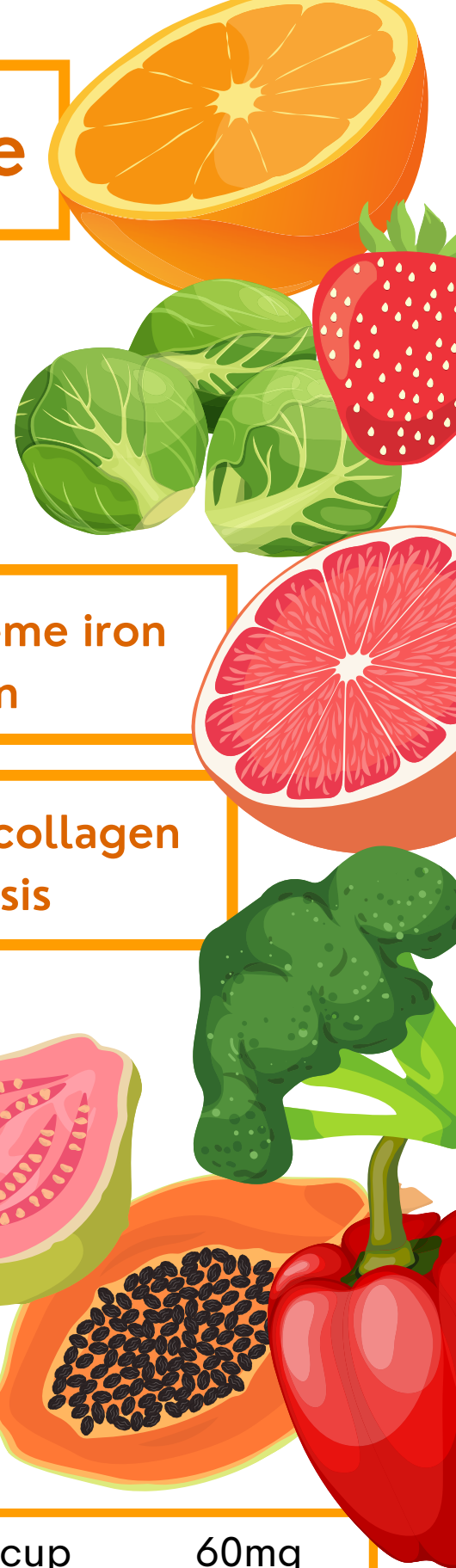


Vitamin C for Health & Performance



What is it?

An essential water-soluble vitamin, also known as ascorbic acid

What does vitamin C do for the body?



Acts as an antioxidant



Enhances non-heme iron absorption



Supports immune function



Needed for collagen synthesis

How much vitamin C do you need?

	ages 9-13	ages 14-18	ages 19+
male	45mg	75mg	90mg
female	45mg	65mg	75mg

What are the best food sources of vitamin C?

guava, 1 medium	125mg	green bell pepper, 1/2 cup	60mg
orange juice, 1 cup	121mg	mango, 1 cup	60mg
papaya, 1 cup	100mg	cantaloupe, 1 cup	58mg
red bell pepper, 1/2 cup	95mg	cauliflower, 1 cup	52mg
broccoli, 1 cup	80mg	strawberries, sliced, 1/2 cup	49mg
pineapple, 1 cup	80mg	grapefruit, 1/2 medium	39mg
Brussels sprouts, 1 cup	77mg	cabbage, 1 cup	33mg
orange, 1 medium	70mg	baked potato, 1 medium	29mg
kiwi, 1 medium	64mg	tomato, 1 medium	27mg

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Illness



Intake of at least 200mg vitamin C daily does not reduce incidence of the common cold for the general population, but may be helpful for those performing very high levels of physical activity. Duration and severity of cold symptoms may be reduced with regular intake vitamin C intake of at least 200mg per day. It is not clear if high dose vitamin C supplementation decreases duration and severity of colds when given at the onset of illness.



Supplements

While vitamin C needs can easily, and usually should be, met with food alone, supplementation is an option. Ascorbic acid as the form of vitamin C in a supplement is as bioavailable as the natural form in foods and is inexpensive.



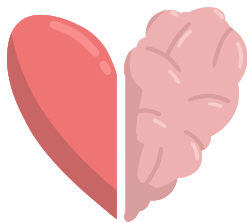
Excessive intake

High intake of vitamin C is not believed to lead to serious adverse effects. Common symptoms reported with high vitamin C supplementation are diarrhea, nausea, abdominal cramps and other gastrointestinal disturbances.



Performance and recovery

Supplementation with antioxidants, such as vitamin C, does not seem to prevent exercise-induced oxidative stress in the body, nor improve performance. Antioxidant supplementation may actually negatively affect training adaptations.



Disease prevention

Supplementation with vitamin C does not seem to decrease risk of developing diseases. However, diets rich in fruits and vegetables, which are excellent natural sources of vitamin C, are associated with lower risk of diseases such as cancer and cardiovascular disease.



Cooking considerations

Vitamin C is not very heat stable. Maximize the vitamin C content of foods by choosing low to no heat preparation methods. Some ideas:

- Cabbage and Brussels sprout slaw
- Red pepper and tomato based gazpacho
- Broccoli sautéed until just tender-crisp
- Fresh lemon juice based vinaigrette

