

# Are You Throwing Out This Nutrient-Filled Food?

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✓ Fact Checked

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## STORY AT-A-GLANCE

- › There are two common varieties of parsley – flat leaf Italian parsley and curly leaf French parsley. Both pack a powerful nutritional punch and both are often discarded at the end of a meal as just a colorful garnish
- › While not commonly used in foods in Western cultures, it is a frequent ingredient in European and Middle Eastern foods. The herb is rich in vitamins A, C and K, magnesium, potassium and folate
- › Parsley has powerful antioxidant activity and is rich in luteolin that helps support mental health and has anti-inflammatory and neuroprotective properties. Apigenin is another flavonoid that helps slow cancer growth and improves memory consolidation and flavones have demonstrated antioxidant, antimicrobial, anti-inflammatory and antitumor properties
- › Parsley can be grown indoors and outdoors in pots or the ground. The herb can be paired in pots with other sun-loving plants like petunias or other herbs; keep the soil moist and ensure pots have good drainage. Harvest the plant by snipping close to the ground to continue to get new growth

Parsley is a popular garnish in Western cultures and a frequent ingredient in European and Middle Eastern foods. Although you may have tossed it aside as a garnish, this tasty herb packs a powerful nutritional punch. There are two main varieties of parsley.

The curly leaf parsley (*Petroselinum crispum*) is sometimes called French parsley and the flat leaf (*Petroselinum crispum neapolitanum*) is also known as Italian parsley.<sup>1</sup>

Both varieties are nutrient-rich and flavorful. The one you choose for your cooking or salad depends on the flavor you're after. However, it's important to taste the plant since the flavor depends on the growing conditions and the age when it was harvested.

You can substitute one for the other but should consider how the texture works best in what you're cooking. Parsley belongs to the carrot or celery family, which includes herbs like dill and fennel.<sup>2</sup>

The name comes from a Greek word that translates into "rock celery," which refers to the habit curly leaf parsley has of thriving on rocks and walls. The herb has a long history in cooking and traditional and herbal medicine. Parsley can help alleviate menstrual pain and should be avoided by women who are pregnant as it can hurt the pregnancy.<sup>3</sup>

## Parsley Is Far More Than a Colorful Garnish

In an article in The Washington Post, freelance food writer Emily Horton described the culinary uses of parsley, writing:<sup>4</sup>

*"Used as a primary seasoning, parsley can carry a dish; its piney, faintly bitter flavor assumes brighter, rounder tones. Paired with more assertive ingredients, it makes a great unifier, assuring balance and nudging harmony forward.*

*Parsley works more conspicuously to allow the whole to make a greater impression. You can't say any of that about sage, thyme, marjoram, tarragon, certainly not rosemary, and not even meek, lovely chervil."*

But the health benefits associated with the nutrient-rich herb don't play inconspicuously. Rich in vitamins A, C and K and magnesium,<sup>5</sup> this unassuming little green herb carries some impressive health-boosting clout.

- **Beta-carotene** — One tablespoon of parsley contains 16 micrograms (µg) of beta-carotene. This fat-soluble vitamin is crucial to supporting your immune system, normal vision and reproduction.<sup>6</sup> Adult men and women require 900 mg and 700 micrograms respectively.

Other foods that are rich in vitamin A include cantaloupes, mangoes, beef liver and grass-fed dairy products, such as milk, cheese and eggs. Because the vitamin is fat soluble, your body stores excess amounts, which can increase the risk of hypervitaminosis from supplementation.<sup>7</sup>

- **Vitamin K** – One tablespoon of chopped parsley provides 62.3 µg of vitamin K, which nearly meets the adequate intake (AI) of 75 µg. The AI is the level that is assumed to ensure intake adequacy.<sup>8</sup> Vitamin K is crucial in the biochemical cascade that controls blood clotting and it contributes to strong healthy bones.

The body breaks **vitamin K** down quickly and excretes it in the urine and stool. Unlike other fat-soluble vitamins, there are only rare instances of the vitamin reaching toxic levels.<sup>9</sup>

- **Folate** – This is the natural form of vitamin B9 that is better absorbed from whole foods than from vitamin-enriched processed foods.<sup>10</sup> Folate is involved in the formation of RNA and DNA and protein metabolism. Your body uses it to manufacture healthy red blood cells and it is critical during pregnancy.
- **Potassium** – Parsley has a **healthy potassium-sodium balance** with 21.1 mg of potassium to 2.13 mg of sodium. This essential mineral is used by nearly all bodily tissue to help maintain normal fluid levels. Working together, potassium functions inside the cells and sodium supports normal levels outside the cells.<sup>11</sup> The body also uses potassium to promote normal blood pressure and muscle contraction.
- **Calcium** – This mineral plays an important role in several bodily functions, including regulating heart rhythm, nerve function, blood clotting and helping muscles to contract.<sup>12</sup> Nearly 99% of the body's calcium can be found in healthy bones and teeth. If you don't eat enough foods with calcium and blood levels drop too low, the body signals the bones to release calcium.

## **Parsley Has Powerful Antioxidant Activity**

Antioxidants help fight free radicals and reactive oxygen species (ROS) that can harm your body when levels get too high. Antioxidants are essential for all living things to survive, including plants and animals. Adequate intake is vital to preserve health.

Parsley is rich in the following antioxidants:

- **Luteolin** – Luteolin has demonstrated the capacity to support mental health and reduce brain fog.<sup>13</sup> Plants rich in this antioxidant were popular in Chinese traditional medicine for treating cancer, inflammation and high blood pressure.<sup>14</sup>

Data have demonstrated that luteolin has anti-inflammatory properties and acts as a neuroprotective agent, which researchers believe may play a role in the management of age-related neurodegenerative disorders.<sup>15</sup>

It is also associated with promoting apoptosis and inhibiting cell proliferation and angiogenesis, both of which contribute to luteolin's anticancer properties.

Researchers have also found that it sensitizes cancer cells to cytotoxicity making it a potential option as an anticancer agent.<sup>16</sup>

- **Apigenin** – This flavonoid has also demonstrated the ability to slow cancer growth<sup>17</sup> and treatment also inhibits CD38<sup>18</sup> and promotes an increase in intracellular NAD<sup>+</sup> levels. CD38 is the primary enzyme that lowers NAD<sup>+</sup> levels, so by inhibiting it, NAD<sup>+</sup> levels increase.

Apigenin also helps improve memory consolidation, learning and overall brain function.<sup>19</sup> In a news release, the researchers wrote:<sup>20</sup> "Researchers believe apigenin can be used as an alternative approach on future treatments for neurodegenerative diseases as well as in neuronal differentiation strategies in the laboratory."

- **Carotene** – There are 192 µg of beta carotene in 1 tablespoon of parsley, which the body can use to convert into Vitamin A. Beta carotene is fat-soluble and so is stored in the body. It is also an antioxidant and there is evidence that foods rich in antioxidants can help support your immune system, skin, mucous membranes and lower your risk of heart disease and cancer.<sup>21</sup>

However, it is possible to get too much beta carotene using an antioxidant supplement. The richest food sources are orange and yellow fruits and vegetables. Supplementation with beta carotene has been known to increase your sensitivity to the sun, interact with statin medications, cholestyramine, orlistat, mineral oil and excessive use of alcohol, which may increase the risk of liver damage.

- **Flavones** – Parsley is a rich source of this subclass of flavonoids. There are 1350 mg of flavones in 100 grams of dried parsley leaf.<sup>22</sup> Flavones have also demonstrated antioxidant, antimicrobial, anti-inflammatory and antitumor properties.<sup>23</sup>

## **Importance of Vitamin C and Magnesium to Your Health**

One tablespoon of parsley<sup>24</sup> is packed with 1.9 mg of magnesium and 5.05 mg of vitamin C. One cup of parsley contains 30 mg of magnesium and 79.8 mg of vitamin C. Both nutrients are crucial to optimal health.

Even in small quantities, vitamin C helps protect proteins, lipids and DNA and RNA from ROS generated during normal metabolism. Vitamin C is an antioxidant and helps protect immune cells from damage and can help defend against viruses.<sup>25</sup> The antioxidant properties may help lower the risk of neurodegenerative conditions.

Parsley also helps boost your magnesium intake, which plays an important role in the activation of vitamin D.<sup>26</sup> Magnesium deficiencies can increase your risk for anxiety, depression, heart disease, migraines, osteoporosis and more. Yet, statistics show that at least 50% of Americans are deficient in magnesium<sup>27</sup> and some estimations are far higher.<sup>28</sup>

Magnesium is integral to cardiovascular, kidney, bone and muscle health. One of the biggest reasons for deficiencies is processed foods, which have unfortunately become a staple in the American diet. Magnesium-rich foods include pasture-raised dairy products, avocado, blackberries and spinach.<sup>29</sup>

When it comes to **oral supplementation**, my personal preference is magnesium threonate,<sup>30</sup> as it appears to be the most efficient at penetrating cell membranes, including your mitochondria and blood-brain barrier. Other effective ways to boost your magnesium level include:

- **Epsom salt (magnesium sulfate) baths** – The magnesium will effectively absorb through your skin.
- **Using a topical solution** – Prepare a supersaturated solution of Epsom salt by dissolving 7 tablespoons of the salt into 6 ounces of water and heating it until all the salt has dissolved. Pour it into a dropper bottle and then apply it to your skin and rub fresh aloe leaves over it to dissolve it.

This is an easy and inexpensive way to increase your magnesium and will allow you to get higher dosages into your body without having to deal with its laxative effects.

## **You Don't Need a Garden to Grow Your Own Parsley**

Parsley is a biennial plant, which means it grows over two seasons. However, in the second year of growth, the leaves tend to be bitter and tough. In the northern hemisphere, parsley is usually grown as an annual plant since it doesn't tolerate harsh winters. Parsley grows up to 1 foot high and makes a good companion to other annuals, perennials and herbs.

According to the University of Minnesota Extension program,<sup>31</sup> you can grow parsley outdoors as a border or in containers in the garden or indoors. The dark color makes a striking contrast to pansies and petunias, so you might consider the combination with your outdoor flowers. Like petunias and most herbs, parsley does best in a sunny area with roughly six hours of direct sunlight daily.

If you're starting from seeds, consider soaking them in warm water for 24 hours before planting to speed up germination. The seeds can be sown directly in the ground after the danger of spring frost has passed, or anytime all year round when you're planting indoors in a bright location.

Ensure pots have holes at the bottom for good drainage and don't let the plants dry out between watering to ensure the roots have enough water while growing. You'll continue to get new growth if you harvest parsley by snipping it close to the ground. When you cut off just the tops, the plant doesn't produce as much second growth.

Fresh parsley has the strongest flavor and the best quality. The herb can be dried or frozen, but you'll need to use more to achieve the same flavor. Whether it's dried or frozen, it should be stored in an airtight container and used within one year's time.<sup>32</sup>

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