

- **Regulating blood pressure:** Potatoes are naturally low in sodium and rich in potassium, a mineral that plays a key role in regulating blood pressure levels. Potassium helps counteract the effects of sodium in the body, promoting healthy blood pressure and reducing the risk of hypertension and related cardiovascular issues.
- **Supporting heart health:** The combination of fiber, potassium and other nutrients found in potatoes contributes to heart health. Fiber helps lower cholesterol levels, while potassium helps regulate blood pressure, reducing the risk of heart disease. Potatoes contain compounds like flavonoids and antioxidants that may further support heart health by reducing inflammation and oxidative stress.

Tips for maximizing nutritional value of potatoes:

- **Choose the right cooking methods:** Opt for cooking methods that preserve the nutritional content of potatoes such as boiling, steaming or baking, rather than frying or excessive oil usage. Boiling and steaming help retain nutrients, while baking at moderate temperatures preserves nutritional integrity. However, boiling or baking potatoes for extended periods or frying them, can deplete nutrients. Vitamin C is particularly both water-soluble and sensitive to heat and oxygen. Frying and use of excessive oil introduce unhealthy fats and calories.
- **Pair with other nutrient-rich foods:** Enhance the nutritional value of potatoes by pairing them with other nutrient-rich foods such as vegetables, lean proteins, or healthy fats. This not only adds variety and flavor to your meal but also provides a broader range of essential nutrients for overall health.



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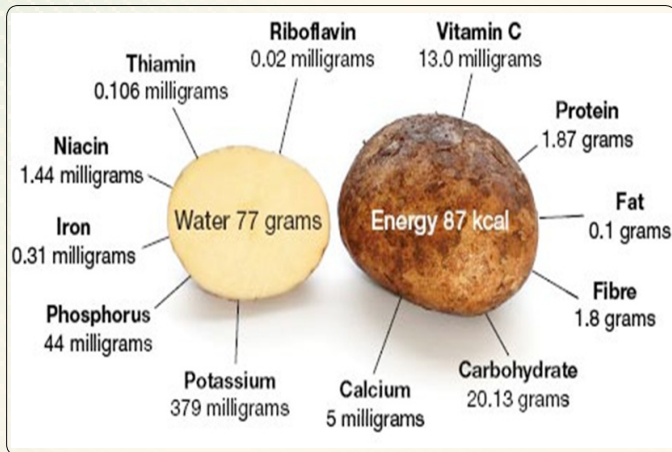
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The Nutritional Value of Potatoes



Introduction

Potatoes offer nutrients crucial for maintaining a balanced and healthy diet. Among these nutrients are fiber, vitamins, phenolic compounds, high-quality protein and essential minerals. This diverse nutritional profile makes potatoes valuable, especially for individuals following vegetarian diets. Understanding the nutrients in potatoes is key to appreciating their significant role in promoting overall health and well-being.



Source: (Grant Tinsley, 2023)

Key Nutrients

a) Carbohydrates

Potatoes are rich in carbohydrates, primarily in the form of starch, comprising amylopectin and amylose in a consistent 3:1 ratio. They contain Resistant Starch (RS), which resists digestion in the small intestine, fermenting in the large intestine to produce beneficial short-chain fatty acids, supporting gut health.

Benefits and influence of resistant starch (RS) in potatoes

- Short-chain fatty acids from RS modulates gut pH, reduces toxic ammonia, and promotes the growth of beneficial bacteria, improving digestion and overall well-being.
- Resistant Starch enhances satiety, potentially aiding in weight management, and positively influences lipid and glucose metabolism.
- Cooking methods significantly affect RS content. Baked and chilled potatoes have higher RS levels, followed by chilled-and-reheated variations, with hot potatoes having the least. Even processed forms like potato flakes retain substantial RS, emphasizing the importance of selecting appropriate cooking techniques for maximizing nutritional benefits.

b) Dietary fiber

In every 150 grams of potato, there are 2 grams of fiber about 7% of the fiber one needs in a day. Most of this fiber is in the potato's flesh, with some in the skin.

c) Crude protein

Potatoes have more protein than many other vegetables. Protein quality is measured using egg protein as the standard, which is given a value of 100. Potatoes have a protein quality of about 90, which is quite high.

d) Amino acids

Potatoes have all nine essential amino acids, which are important for human body. They are a great addition to a healthy diet. Additionally, they have fewer sulfur-containing amino acids, which might not be so good for your bones.

e) Vitamins and Minerals

The vitamins and minerals that potatoes offer for maintaining good health are as follows:

- **Vitamin C:** A medium-sized potato provides 27 mg of vitamin C, meeting the Food and Drug Administration's (FDA) standard for being an "excellent source" of this vitamin. Despite not containing as much vitamin C as citrus fruits, potatoes contribute significantly to fulfilling human body daily requirements.
- **B Vitamins:** Potatoes are also rich in essential B vitamins such as riboflavin, thiamin, folate and vitamin B6.
- **Potassium:** Potatoes surpass other high-potassium foods like bananas, oranges and broccoli.
- **Magnesium:** A medium potato with the skin on provides 48 mg of magnesium, a mineral often lacking in many diets.
- **Iron:** While potatoes contain only 1.3 mg of iron, their high vitamin C content aids in iron absorption. With no substances hindering absorption, potatoes remain a valuable source of iron in a diet.

Health Benefits of Potatoes

- **Supporting digestive health:** Potatoes are a good source of dietary fiber, which aids in digestion by promoting regular bowel movements and preventing constipation. Fiber also supports the growth of beneficial gut bacteria, contributing to overall digestive health.
- **Boosting immune function:** Potatoes contain significant amounts of vitamin C, which is essential for a healthy immune system. Vitamin C helps the body produce white blood cells, which are crucial for fighting off infections and illnesses, thus bolstering immune function.