

Functional Foods

Onions

"Know Your Onions"

Angeline Jeyakumar¹, Victoria Agyekum ²

¹Nutrition Specialist; Extension; Department of Nutrition; University of Nevada, Reno.

²MS Nutrition; Department of Nutrition; University of Nevada, Reno.



1. Onions are believed to have originated from central Asia.
2. It has been cultivated for over 5,000 years, and Native Americans have used it either in the raw or cooked form or as a seasoning.

What is present in onions?

Onions contain certain protective substances called **flavonoids**. Among the many flavonoids, **quercetin** is anti-inflammatory (substances that can reduce pain, tenderness or block substances that cause them).

Inflammatory responses are high in chronic diseases such as heart disease and cancer. Flavonoids such as **quercetin**, and sulphur-containing compounds have antioxidant functions that control the ill effects of inflammation.

What do studies say about the health benefits?

Blood lipids: Eating raw onions has been associated with reducing fats in blood, particularly bad cholesterol, among obese women with polycystic ovary syndrome¹. **

Cancer patients with diabetes: A study demonstrated that daily consumption of raw yellow onions reduced blood sugar in breast cancer patients undergoing treatment ² ***. In this eight-week intervention, one group was given a high-dose onion (one onion) and the other was given less onion (half an onion). By the end of the intervention, the high-dose onion group exhibited significant reductions in fasting blood glucose, serum insulin levels and other indicators for diabetes.

Polycystic ovarian syndrome: Consuming half a raw onion daily may offer health benefits, particularly in reducing blood sugar and lowering fat in the blood. However, it is important to note that these studies were conducted among individuals with the syndrome and breast cancer ^{1,2} **. When compared to other fruits and vegetables, onions are especially potent in flavonol content. For example, onions contain higher amounts of quercetin than found in broccoli, apples and blueberries ³. Furthermore, red onions provide anthocyanins, particularly in their outer skins ⁴ **. Research is ongoing to further support these facts.

Strength of evidence

*** Strong ** Moderate * Basic

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Onion type and cooking methods greatly influence bioactive content.

In addition to flavonoids, onions are rich in sulfur compounds that are responsible for both the pungent aroma and several medicinal properties.

These sulfur compounds also differ based on cooking method. Boiling reduces their content; while frying, microwaving and steaming can increase it⁵. Onions are also a notable source of prebiotics, making them more beneficial for gut health than many commonly consumed vegetables⁶.

How is onion traditionally used?

- To improve digestion
- Relieve cough and cold
- Protect against infections
- Heal wounds⁷

How many onions are safe to consume?

- Onions are safe to consume as food.
- Consult your physician about the usage of supplements or concentrated extracts.
- Functional foods, including onions, should not replace a healthy diet or prescribed medication.
- Effects can differ from person to person.

How to use onions

As a food item, onion is usually served as a vegetable ingredient in warm dishes by cooking such as baking, boiling, braising, grilling, frying, roasting, sautéing or steaming. It can also be eaten raw in salads, made into juice, pickled in vinegar or used as a spice.



Resources

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Contact: ajeyakumar@unr.edu

Phone: 775-336-0275

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