

GREENING



Q. WILL CONSUMING IDAHO® POTATOES WITH GREEN PATCHES MAKE YOU SICK?

A. No. Green spots or patches on potatoes (known as “greening”) are a natural result of chlorophyll production in the tuber from being exposed to light.¹

FACTS

Greening and glycoalkaloids are naturally occurring in potatoes. Exposure of potatoes to light either in the field, in storage, on grocery store shelves or at home can cause green pigmentation to form on the surface of the potato. This “greening” is due to the formation of chlorophyll, a pigment that is found in many plant foods, including lettuce, spinach and broccoli.¹

Potatoes as typically consumed contain little solanine. The highest levels of glycoalkaloids are typically found in the sprouts, flowers, leaves or other actively growing areas of the tuber which are not the parts of potatoes that people typically consume. Concentrations of glycoalkaloids are higher in immature potatoes and are diluted as the tuber grows and matures.¹ It should also be noted that potato breeding programs have resulted in the commercial release of only potato lines with very low levels of solanine.²

Acceptable limits. The FDA considers the maximum acceptable glycoalkaloid content to be 20-25mg/100g fresh potato weight (or 200-250 parts per million (ppm)). For example, the mean toxicity response in humans for glycoalkaloids is 3mg/kg body weight (range 1-5mg/kg body weight). Assuming that a potato contained glycoalkaloids at the advisory level of 200 ppm, an 80kg (176 lb.) person would have to consume an entire kilogram of the affected areas of a potato in a serving to trigger a toxic response. Also note that potatoes with this high a level of glycoalkaloids would have a bitter, burning taste that would be unpleasant to consume.³

Minimizing glycoalkaloid formation. Strategies can be employed at harvesting and post-harvesting to reduce glycoalkaloid formation in potatoes.⁴

- Store in cool, dark place
- If you see a spot of green on a potato, cut it out and eat the remainder



REFERENCES

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3. Dolan LC, Matulka RA, Burdock GA. “Naturally Occurring Food Toxins.” *Toxins*. 2010;2:2289-2332.
4. Friedman M. “Potato Glycoalkaloids and Metabolites: Roles in the Plant and in the Diet.” *J Agric Food Chem*. 2006;54:8655-8681.

POTATOES AND WEIGHT LOSS



FACT CHECK



Q. IF I AM TRYING TO LOSE WEIGHT, DO I NEED TO AVOID IDAHO® POTATOES?

A. No. Research demonstrates that people can eat Idaho® potatoes and still lose weight.

FACTS

There is no evidence that Idaho® potatoes, when prepared in a healthful manner, impede weight loss.

- In fact, a study published in the Journal of the American College of Nutrition demonstrates that people can eat potatoes and still lose weight.¹

The study, a collaborative effort between the University of California at Davis and the Illinois Institute of Technology, sought to gain a better understanding of the role of calorie reduction and the glycemic index (GI) in weight loss when potatoes are included in the diet. Ninety overweight men and women were randomly assigned to one of three groups:

1. Reduced calorie/high GI
2. Reduced calorie/low GI
3. Control group with no calorie or GI restrictions

All three groups were provided potatoes along with healthful recipes and instructions to consume 5-7 servings of potatoes per week. All 90 participants were involved in light to moderate exercise. At the end of the 12-week study period, the researchers found that all three groups had lost weight and there was no significant difference in weight loss between the groups.

STUDY SHOWS YOU CAN EAT IDAHO® POTATOES AND STILL LOSE WEIGHT.



REFERENCES

1. Randolph JM, Edirisinghe I, Msoni AM, Kappadoda T, Burton-Freeman B. "Potatoes, Glycemic Index, and Weight Loss in Free-Living Individuals: Practical Implications." J Am Coll Nutr. 2014. 33:5, 375-384, DOI: 10.1080/07315724.2013.875441

NUTRITION IN SKIN VS. FLESH



FACT CHECK



Q. ARE ALL THE NUTRIENTS IN THE SKIN OF THE POTATO?

A. No. While the skin does contain approximately half of the total dietary fiber, the majority (> 50%) of the nutrients are found within the potato itself.

FACTS

The only nutrient significantly lost when the skin is removed is fiber.

- A medium (5.2 oz) Idaho® potato contains 2 grams of fiber with the skin and 1 gram of fiber without the skin.¹

Potassium and vitamin C are found predominantly in the flesh of the potato.

- A medium (5.2 oz) potato with the skin contains 620mg of potassium and 27mg of vitamin C.¹



REFERENCES

1. US Department of Agriculture, Agricultural Research Service, Nutrient Data Laboratory. "USDA National Nutrient Database for Standard Reference, Release 28 (Slightly revised)." Version Current: May 2016. www.ars.usda.gov/ba/bhnrc/ndl

CARBOHYDRATE



Q. ARE IDAHO® POTATOES HIGH IN CARBS?

A. Yes. Idaho® potatoes are a carbohydrate-rich vegetable.

FACTS

A medium, 5.2 ounce Idaho® potato with the skin on contains 26 grams of carbohydrates.

The predominant carbohydrate in potatoes is starch, which is considered a complex carbohydrate.¹

Carbohydrate is the primary fuel for your brain and a key source of energy for muscles and is important for optimal physical and mental performance.²

Because of their high carb content, potatoes are often categorized with grains like rice, pasta and bread, but they are officially vegetables, as classified by both the USDA's MyPlate guidelines and the 2015-2020 Dietary Guidelines for Americans, which is jointly published by the USDA and the U.S. Department of Health and Human Services.³

Potatoes are an excellent source of vitamin C (45% of the DV), a good source of vitamin B6 (10% of the DV) and a good source of potassium (18% of the DV). They are also fat, cholesterol and sodium free and contribute 7% of the daily value for fiber.

Currently, consumption of all vegetables—including “starchy” vegetables—is about 80% below the intake levels recommended in the most recent (2015-2020) Dietary Guidelines for Americans.³



REFERENCES

1. Wolfe JA. *The Potato in the Human Diet*. New York: Cambridge University Press. 1987, pp10.2.
2. “Nutrition and Athletic Performance.” Position of the Academy for Nutrition and Dietetics, American College of Sports Medicine and the Dietitians of Canada. *Med Sci Sports Exerc*. 2015;48:543-568.3.
3. U.S. Department of Health and Human Services and U.S. Department of Agriculture. “2015-2020 Dietary Guidelines for Americans.” 8th Edition. December 2015. Available at www.health.gov/dietaryguidelines/2015/guidelines.

IDAHO® POTATOES VS. SWEET POTATOES



FACT CHECK



Q. HOW DO SWEET POTATOES AND IDAHO® POTATOES COMPARE WHEN IT COMES TO THEIR NUTRITION PROFILES?

A. Both sweet and Idaho® potatoes provide similar amounts of key nutrients including protein (2g and 3g respectively), potassium and vitamin B₆, all of which contribute to a well-balanced, nutrient-dense diet.

FACTS

The FDA's nutrient analysis for the Top 20 Raw Vegetables indicates the following:¹

- Both Idaho® potatoes and sweet potatoes are good sources of potassium. A medium-size Idaho® potato offers 620mg of potassium while a medium-size sweet potato offers 440mg of potassium.
- Both Idaho® potatoes and sweet potatoes are excellent sources of vitamin C. A medium-size Idaho® potato provides 45% of the daily value, which is more vitamin C than one medium-size sweet potato. Both Idaho® potatoes and sweet potatoes are a good source of vitamin B₆.
- Idaho® potatoes are similar in calories and carbohydrates when compared to sweet potatoes. One medium-size Idaho® potato contains 110 calories and 26 grams of carbohydrate. Similarly, one medium-size sweet potato contains 100 calories and 23 grams of carbohydrates.



REFERENCES

1. "FDA Top 20 Raw Vegetables." www.fda.gov/Food/LabelingNutrition/ucm114222.htm

GLYCEMIC INDEX



Q. DO POTATOES HAVE A HIGH GLYCEMIC INDEX (GI)?

A. The GI of potatoes is highly variable and depends on a variety of factors including the potato type, origin, processing and preparation.¹

FACTS

The GI is a very complex, mathematical measure and is defined as the “incremental area under the blood glucose response curve of a 50 gram portion of available carbohydrate from a test food expressed as a percentage of the response to the same amount of available carbohydrate from the reference food, i.e., white bread or glucose.”^{2,3}

Research shows that the GI is not a reliable measure.⁴

Despite claims that potatoes have a high GI, the fact is that the GI of potatoes is highly variable and depends on a number of factors including:^{1,5,6}

- Processing and preparation
- Variety, origin, maturation
- With what they are consumed
i.e. protein and fat

Both the 2010 and the 2015 Dietary Guidelines committees concluded there is no evidence indicating that GI aids in weight loss or weight loss maintenance, or aids in the prevention or treatment of cardiovascular disease.^{7,8}



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1. Fernandes G, Velangi A, Wolever TMS. “Glycemic index of potatoes commonly consumed in North America.” *J Am Diet Assoc.* 2005;105:557-562.
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3. Pi Sunyer FX. “Glycemic index and disease.” *Am J Clin Nutr* 2002 Jul;76(1):290S-8S.
4. Mattan NR, Ausman LM, Meng H, et al. “Estimating the reliability of glycemic index values and potential sources of methodological and biological variability.” *Am J Clin Nutr.* 2016;104:1004-1013.
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6. Henry CJ, Lightowler HJ, Strik CM, Storey M. “Glycaemic index values for commercially available potatoes in Great Britain.” *Br J Nutr.* 2005 Dec;94(6):917-21.9.
7. U.S. Department of Health and Human Services and U.S. Department of Agriculture. *Report of the Dietary Guidelines Advisory Committee on the Dietary Guidelines for Americans, 2010.* Available at www.health.gov/dietaryguidelines/2010.
8. U.S. Department of Health and Human Services and U.S. Department of Agriculture. “2015-2020 Dietary Guidelines for Americans.” 8th Edition. December 2015. Available at www.health.gov/dietaryguidelines/2015/guidelines/.