

# POTATOES AND THE GLYCEMIC INDEX

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POTATOES  
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WHOLEFOOD

## How to reduce the GI of potatoes and gain the benefits of resistant starch

Potatoes are a highly nutritious wholefood. They contribute a range of nutrients associated with good health, including fibre, vitamin B6, vitamin C, potassium and phytonutrients. You might also be surprised to know that potatoes can have a lower glycemic index (GI) than you might think.

### What is the Glycemic Index?

The GI is a measure of the speed at which a food makes blood sugar rise.

GI is calculated by measuring the change in blood glucose (BGL) over a two-hour period after eating a 50 gram carbohydrate portion of a single food relative to the change in blood glucose after eating a 50g carbohydrate portion of a reference food (glucose or white bread).

When it is not possible to measure this directly, GI tables are used to provide an estimate of BGL response, however, there are large fluctuations in BGL response to foods both within and between individuals.

The lower a food's GI, the slower BGLs rise after eating that food. There are many factors affecting GI in nuts and potatoes. GI less than 55 is considered low, 56-69 moderate and 70+ high.

To better understand a food's effect on BGLs, you need to know how quickly its glucose enters the bloodstream and how much glucose per serving it can deliver. A separate measure called the glycemic load (GL) aims to do both to give an estimate of a food's impact on BGLs.

### The GI of potatoes

The GI of potatoes varies widely and potatoes are usually eaten with other foods which often reduces GI significantly. Combining potatoes with foods that contain healthy fats, protein, fibre, vinegar or lemon juice lowers GI. For example, preparing potatoes using dressings containing lemon juice, vinegar and extra virgin olive oil or eating potatoes with meat, salad or vegetables will reduce GI.

If you're looking to reduce the GI this can also be done by consuming cold or reheated potatoes which contain higher amounts of resistant starch, a type of fibre that resists digestion.

Resistant starch increases in potatoes when they are cooked and cooled, effectively extending the time it takes to digest and absorb carbohydrates, preventing spikes in postprandial blood glucose levels. New testing done under the Aussie Potatoes project shows a medium cooked and cooled potato (140g) can provide more than 25% of the recommended daily intake of fibre, as well as 2.2g of resistant starch.

### AT A GLANCE

The GI of potatoes is influenced by:

- Variety of potato (and its carbohydrate, fibre and polyphenol content)
- Serving size
- Cooking method/preparation and storage
- Fibre and resistant starch content (higher amounts = lower GI, leave the skin on)
- Combination with other foods (e.g. healthy fats, protein, lemon juice, vinegar, nuts and high fibre foods.)







[www.aussiepotatoes.com](http://www.aussiepotatoes.com)

## Another reason pigmented potatoes are good for you

Pigmented potatoes contain flavonoids, a subgroup of polyphenols, and exciting new research is exploring the health benefits of these plant compounds. Potatoes with higher levels of polyphenols have a lower GI. The exact mechanisms by which polyphenols reduce the glycemic response remains unclear but they have been reported to slow the activity of digestive enzymes and reduce glucose uptake in intestinal cells. (Wee and Henry 2019, Ramdath et al. 2014)

## It's about the whole meal

Don't forget it's the glycemic load of a whole meal that's more important than an individual food's GI value. Research shows formulas used to calculate the GI of mixed meals overestimates the GI by 22-50% and the overestimation is unpredictable. (Dodd 2011)

### SUMMARY

- GI is simple in theory, but complex in practice
- Consider GI in the context of other nutritional indicators
- Potatoes are a high-quality carbohydrate
- Potatoes are 'very high' in fibre and contain resistant starch
- Cooking and cooling potatoes lowers GI
- Coloured potatoes have higher levels of polyphenols and lower GI
- Eating patterns (such as the Mediterranean or other traditional wholefood diets) are fundamental to health.

## Unlock the nutritional benefits of this power packed wholefood

GI is complex. Don't miss out on the nutritional benefits of potatoes just because you are concerned about GI.

Find out more about potatoes in the Mediterranean diet and how cooking methods can dampen the glycemic load while accessing the nutritional benefits of this power packed wholefood.



Hear from Dr Sue Radd, Advanced Accredited Practising Dietitian on the Aussie Potatoes website at [www.aussiepotatoes.com](http://www.aussiepotatoes.com).

## References and further reading

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**Hort Innovation**  
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