

# International Pulse Day

Although used interchangeably, the terms “legumes,” “pulses,” and “beans” are three different things. A legume refers to the whole plant from the Fabaceae family that would include its leaves, stems, and pods. A **pulse is the edible seed** from a legume plant. Pulses include **beans, lentils, and peas**. For example, a pea pod is a legume, but the pea inside the pod is the pulse. The pulse is typically what ends up on our dinner plate, while the entire legume has additional environmental benefits (below). And let’s not forget Beans, like kidney, black, pinto, navy, chickpeas, etc. which are just different types of pulses!



## Nutrition

- Pulses are little **nutrient powerhouses**, providing a range of essential nutrients including gut friendly fibre, low glycaemic carbohydrates, B vitamins, folate, iron, zinc, calcium and magnesium.
- Pulses are one of the highest sources of **plant-based protein** and have about **twice the protein content of cereal grains**.
- Pulses are **low in sodium**. The sodium content of canned pulses can be reduced by up to 40% if the product is drained and rinsed.
- Pulses are **rich in dietary fibre**, including both insoluble and soluble fibre, plus resistant starch for **digestive health**.
- Pulses are **gluten free** and are suitable for people with coeliac disease or gluten sensitivity.
- Soaking and rinsing dry pulses before cooking can make it **easier to digest and absorb nutrients**.
- Pulses contain a range of **phytonutrients** including isoflavones which may help to **protect health and prevent disease**<sup>2</sup>.
- People who eat pulses are **less likely to develop heart disease**<sup>3</sup>.
- Replacing red meat with high quality plant foods such as pulses may **lower the risk of coronary heart disease**<sup>4</sup>.
- **Pulses can help us live longer**. Higher legume intake is the most protect dietary predictor of longevity<sup>5</sup>.

# Sustainability

- Pulses are a nutritious and sustainable meat alternative, and can play a key role in future healthy and sustainable diets<sup>6</sup>. Recognised for their nitrogen-fixing properties, legume crops facilitate a regenerative effect, improving soil fertility and reducing greenhouse gas emissions via a reduction in the use of fertilisers.



# Cooking

Cooking dried pulses in large batches is easy and cost-effective - simply freeze individual portions of cooked pulses for up to three months for ready-to-use convenience.

- Rinse the pulses before cooking to remove any dirt or debris.
- Soak the pulses overnight in a large bowl of cold water. This will help them cook faster and more evenly. Soaking dry pulses prior to cooking helps to improve their digestibility. Hint: Split peas and lentils do not require any soaking before cooking.
- To prepare chickpeas, beans (excluding kidney beans) and peas simply place 1 cup of pulses and 3 cups of water in a saucepan with some aromatics – think an onion cut in half, some pepper corns, bay leaf, chilli flakes. Bring to the boil and simmer until they're soft 45-50 minutes depending on the pulse! For split peas and lentils, you'll only need to cook them for about 20-30 minutes.
- Drain the cooked pulses and add them to your favorite recipes or dishes.
- Enjoy!

## How often should I eat legumes?

GLNC recommends Australians enjoy legumes at least 2 -3 times each week. The Australian Dietary Guidelines recommend:

- Five or six serves of vegetables including legumes each day
- Two or three serves of lean meat, poultry, fish, eggs, nuts and seeds and legumes / beans each day

## What is a 'serve' of legumes?

It depends on if you are eating legumes as a vegetable or as an alternative to meat:

- As a vegetable one serve is 75g (1/2 cup) cooked dried or canned beans, chickpeas or lentils, no added salt or
- As a protein source one serve is 1 cup (150g) cooked dried beans lentils, chickpeas, split peas or canned beans or 170g tofu.

## References

<sup>1</sup> Legumes and Pulses, <https://www.hsph.harvard.edu/nutritionsource/legumes-pulses/>

<sup>2</sup> Rochfort, S.; Panozzo, J. Phytochemicals for Health, the Role of Pulses. *Journal of Agricultural and Food Chemistry* 2007, 55, 7981-7994, doi:10.1021/jf071704w.

<sup>3</sup> Marventano, S.; Izquierdo Pulido, M.; Sanchez-Gonzalez, C.; Godos, J.; Speciani, A.; Galvano, F.; Grosso, G. Legume consumption and CVD risk: a systematic review and meta-analysis. *Public Health Nutr* 2017, 20, 245-254, doi: DOI 10.1017/s1368980016002299.

<sup>4</sup> Naghshi, S.; Sadeghi, O.; Willett, W.C.; Esmailzadeh, A. Dietary intake of total, animal, and plant proteins and risk of all cause, cardiovascular, and cancer mortality: systematic review and dose-response meta-analysis of prospective cohort studies. *BMJ* 2020, 370, m2412, doi:10.1136/bmj.m2412.

<sup>5</sup> Darmadi-Blackberry, I.; Wahlqvist, M.L.; Kouris-Blazos, A.; Steen, B.; Lukito, W.; Horie, Y.; Horie, K. Pulses: the most important dietary predictor of survival in older people of different ethnicities. *Asia Pac J Clin Nutr* 2004, 13, 217-220.

<sup>6</sup> Willett, W. Food in the Anthropocene: the EAT-Lancet Commission on healthy diets from sustainable food systems. *The Lancet global health* 2019, 393, 447-492, doi:10.1016/S0140-6736(18)31788-4.