

# Legumes

## packed with goodness

### FACT SHEET

## Nutritious, low in fat and health promoting

### What is a legume?

Legumes (also known as pulses) are eaten throughout the world in many cultures. They include all types of beans and peas – there are many varieties, including kidney beans, butter beans, cannellini beans, baked beans (haricot/navy beans), soybeans, mung beans, black-eye peas, split peas, lentils, chickpeas and peanuts. Legumes also come in a variety of forms – dried, canned, cooked and frozen.

Legumes are highly nutritious: they contain a wide range of essential nutrients including significant amounts of dietary fibre, as well as many important vitamins and minerals, such as B vitamins, iron, zinc, magnesium and calcium.

An excellent and inexpensive source of protein, legumes don't contain the saturated fat of many other protein foods, such as animal products. Most legumes contain very little fat and, like other plant foods, no cholesterol. Soybeans and peanuts are the exceptions – these are significant sources of healthy fats, mostly monounsaturated and polyunsaturated, including plant omega-3s in soy.

As legumes are a plant food, they contain a variety of antioxidants and phytochemicals, such as lignans, isoflavones, phytosterols and saponins, which may play a role in disease protection and predicting length of life<sup>1,2</sup>.

### Legumes and health

Legumes help protect against chronic diseases such as cardiovascular disease and type 2 diabetes\*.

#### Reduce cardiovascular disease risk

Population studies have found eating legumes is associated with a significantly reduced risk of coronary heart disease (CHD) and cardiovascular disease (CVD)<sup>3,4</sup>. One study found including legumes in the diet four times a week reduced CHD risk by over 20% and CVD risk by over 10%<sup>4</sup>. Studies on soy in particular have shown a reduction in cholesterol levels and heart disease risk<sup>5,6,7</sup>. In addition, a recent analysis of all trials comparing eating legumes other than soy with a placebo diet found a significant decrease in both total and LDL cholesterol with non-soy-legume-rich diets<sup>8</sup>.

It appears the healthy components found in legumes, including dietary fibre, plant sterols, phytochemicals and antioxidants, as well as the healthy fats in some types, act together to reduce CHD risk by reducing blood cholesterol levels.

#### Improve blood glucose levels in type 2 diabetes

Together with wholegrains\*, legumes have been shown to improve glucose in diabetes<sup>9,10</sup> and reduce diabetes risk<sup>11</sup>. A major review of over 40 controlled trials found that legumes lowered

### Did you know:



*Legumes are a rich source of dietary fibre, protein, vitamins and minerals such as folate, potassium and iron – a nutrient powerhouse.*

fasting blood glucose and insulin, and in conjunction with low-glycemic index (GI) diets also lowered HbA1C, (an indicator of blood glucose control over time)<sup>10</sup>.

It is thought that legumes may reduce type 2 diabetes risk because of the overall effects of their components on blood glucose levels after a meal – legumes slow the absorption, and reduce a meal's GI<sup>10</sup>.



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## Why eat more legumes?

Not only do legumes contain useful vitamins and minerals, they have other properties that make them worth including in your diet.

**Weight management & satiety** – legumes are filling, relatively low in kilojoules, and low-GI, so it makes sense that they can help in a weight-management diet.

More evidence is needed, but there are a number of studies that support diets including legumes for weight control<sup>12,13,14,15,16</sup>.

**High in dietary fibre\*** – higher fibre diets can have positive effects on energy balance, as well as blood glucose and insulin levels<sup>17,18</sup>. Fibre's effect on regulating normal bowel function is well known. Most Australians only get 2/3 of the fibre they need each day<sup>19</sup> – a serve of legumes can help you reach your recommended daily intake of fibre; at least 25g for women, and 30g for men.

## How much should I eat?

Eating legumes regularly can cut the saturated fat in your diet and boost important dietary nutrients, such as fibre, protein, vitamins, minerals and phytochemicals.

The Australian Dietary Guidelines<sup>20</sup> and the Australian Guide to Healthy Eating<sup>21</sup> recommend we should “eat plenty of legumes” – both as a vegetable and a meat alternative. Around the world, there are some more specific official recommendations, for example, the US Dietary Guidelines<sup>22</sup> recommend 250-300g (1 ½ - 2 cups) per week, and the South African Guidelines<sup>23</sup> 100-200g per day.

One serve of legumes is equal to 75g or ½ cup cooked dried beans, peas or lentils. Aiming for two serves a week is a great start, however eating legumes four times or more per week is best for reducing your risk of chronic disease.

Food	Energy kJ/100g	Protein g/100g	Fibre g/100g
Tofu, firm	530	12.0	7.0
Baked beans, tomato sauce	355	5.0	5.0
Mixed beans, canned	410	6.5	6.0
Lima beans (Butter beans), cooked	340	6.5	5.5
Kidney beans, canned	430	6.5	6.5
Split peas, cooked	270	6.5	4.0
Broad beans, fresh, cooked	250	7.5	7.5
Chickpea, canned	450	6.5	4.5
Lentils, cooked	320	7.0	3.5
Peanuts	2660	25	6.0
Hummus	1020	9.5	8.5

Data from NUTTAB 2010, accessed at <http://www.foodstandards.gov.au/consumerinformation/nuttab2010/nuttab2010online-searchabledatabase/onlineversion.cfm?action=default>. Energy rounded to nearest 10kJ, protein and fibre to the nearest 0.5g.

## Easy ways to include legumes in your diet

- Add cooked beans or lentils to a salad
- Baked beans on toast is a nutritious and easy meal
- Include beans in Mexican dishes, such as tacos or burritos
- Add beans to your favourite casseroles or curries
- Beans or lentils are a great addition to winter soups
- Make delicious hamburger patties with lentils or canned chickpeas
- Try tofu in your vegetable stir-fry or Asian soups
- Add lentils or chickpeas to a quick and easy couscous

## Cooking tips

Legumes are available ready-to-eat, for example, canned beans or lentils - which makes them so convenient. But if you would prefer to buy them dry and cook them yourself – it's not as complicated as you might imagine:

1. Rinse in water and remove any bits of dirt/grit or legumes that are shrivelled.
2. Before cooking you need to soak most legumes (except for lentils, mung beans and split peas) to enhance digestibility and nutrient absorption. Try one of the methods below:

- **Quick soak:** Bring a large pot of water to the boil, add legumes, return to boil. Turn off, cover and stand 1 hour.
- **Traditional soak:** Cover legumes with cold water in a pot with a lid. Refrigerate overnight (or 6-8 hours).
- **If you have digestive issues with beans,** the following method improves digestion and can reduce wind. Bring a large pot of water to the boil, add legumes and boil for a couple of minutes. Allow to cool, refrigerate overnight. Change the water and cook as usual.

Cooking times depend on the variety, but usually around an hour of simmering will cook small to medium beans, larger beans will take longer. Make sure you top up the water to keep beans covered. They're cooked when soft throughout.

To speed up the cooking process its best not to add salt or other ingredients until after soaking/cooking.



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