

# Legumes ~ Here's the Scoop

...pronounced "Lay gumes"



## What are Legumes?

Most can't even pronounce it let alone really know what they are. So here is a great definition for you. Legumes are the simple dry fruits or pods that contain seeds or dry grains. The term is derived from the French word "légume" which has a wider meaning and refers to any kind of vegetable. Legumes plants are noteworthy for their ability to fix atmospheric nitrogen into the soil. Peas, lentils & chickpeas are legumes that are used as rotation crops to wheat and barley. Planted in alternate years, these rotation crops replenish nitrogen in the soil, reducing or eliminating the need for chemical fertilizers.

## What does the word "pulse" mean?

Not referring to the movement of blood through the body but in this regard, "pulse" is a term used to describe crops harvested solely for the dry grains found within their pods. It was defined by the Food and Agricultural Organization of the United Nations (FAO) as annual leguminous crops yielding 1-12 seeds of variable size, shape, and color within a pod that are used for food and animal feed. Crops which are mainly grown for oil extraction, like soybeans and peanuts are not called pulses. Also vegetable crops like fresh green peas and fresh green beans are not considered pulses because they are immature peas that have not been dried naturally in the field.

People use the terms interchangeably, because all pulses are considered legumes but *not* all legumes are considered pulses.

## Peas & Bean's

Peas and beans differ in three ways:

1. Different climate conditions necessary for growth
  - Peas = cool season legumes – more tolerant of cold (US – Northern)
  - Beans = warm season legumes - meaning they require much warmer temperatures (Midwest & Southern California)
2. Growing structure/support
  - Peas plant/pods grow on a vine
  - Beans typically grow in a pod on a bush
3. Difference in growing season
  - Peas mature and are ready for harvest in 70-90 days
    - Beans mature and are ready in 85-115 days

## Health Benefits

Legumes, when eaten in place of refined carbohydrates, can actually...

1. Prevent food cravings
2. Prevent metabolic syndrome
3. Prevent type 2 diabetes
4. Protect against cancer
5. Provide lots of protein and energy
6. Provide lots of calcium
7. Provide lots of vitamins and minerals
8. Prevent obesity
9. Protect against heart disease

Let's examine each one ~

1. Legumes (beans and lentils) prevent food cravings by providing energy and nutrients without causing the pancreas to flood the body with insulin. Foods that are high on the glycemic index, such as high fructose corn syrup, sugar, refined or enriched flour, white rice and other refined carbohydrates, cause the pancreas to secrete large amounts of insulin, and within 1 to 2 hours this flood of insulin is then followed by an acute drop in blood sugar, causing food cravings, especially for refined starches that quickly satisfy a low-blood-sugar craving.

2. Metabolic Syndrome is a collection of symptoms, the primary symptom being insulin resistance (pre-diabetes), according to an article at <http://aclnk.com/ar163218>. People who have developed Metabolic Syndrome experience a higher degree of difficulty losing weight than others because the Metabolic Syndrome has slowed down their metabolism, making weight loss even more difficult, according to the article. Metabolic syndrome begins after an excessive amount of fat has accumulated on the body from repeatedly eating past the point of fullness, mostly due to refined starches, according to the above article. Breaking free of this vicious cycle is very touch and the victim must undergo withdrawal from refined carbohydrates, and learn to eat 3 moderately sized meals per day with no snacks between meals in order to allow the body to burn fat and reverse the Metabolic Syndrome. Eating legumes in place of refined starches prevents the pancreas from releasing large amounts of insulin, which helps maintain healthy blood sugar levels. This prevents cravings and overeating by providing a longer period of feeling full after a meal, thus preventing Metabolic Syndrome.

3. When we eat legumes in place of refined carbohydrates, this allows our bodies to maintain a healthy blood sugar level as described in the previous paragraph, which in turn allows the pancreas to function properly and not over-produce insulin, thus sparing us from the ravages of Type 2 diabetes. Insulin helps us to digest carbohydrates. During our lives, our pancreas only puts out a certain amount of insulin. As mentioned previously, repeated overconsumption of refined starches eventually depletes the pancreas, causing it to no longer produce insulin. The result is Type 2 diabetes. Eating legumes in place of refined carbohydrates can prevent Type 2 diabetes.



4. According to the University of Queensland in Australia, legumes contain a compound that prevents cancer risk and *may* also help with cancer treatment. Another way that legumes protect us from cancer is by helping to prevent obesity. Keeping thin reduces our cancer risk, because people with excessive body fat have an increased risk of cancer. That's not all. Refined carbohydrates feed cancer cells and suppress the immune system. Thus, eating legumes in place of refined carbohydrates prevents fueling malignant cells with sugar and helps to keep the immune system stronger, which helps to protect against cancer. Additionally, eating beans (legumes) in place of refined starch helps to prevent liver cancer caused by fatty liver disease which usually is a result of obesity, a preventable condition by avoiding refined carbohydrates, according to the British Journal of Cancer at <http://www.nature.com/bjc/journal/v97/n7/full/6603932a.html>

5. In research performed by Dr. Nijhoff in the Netherlands, he concluded that the quality of protein and energy supplied by legumes rivals that of any other grain protein. Legumes are a good source of protein, contributing critical nutrition to the diets of both people and animals globally, according to research of soybeans, peanuts, peas, French beans, chick peas (garbanzo beans), pigeon peas, cowpeas, mung beans, black gram beans, azuki beans, lentils, Lathyrus, lupinus, Lotus, Medicago, Tripoli, Winged beans, Guar beans and tree legumes.

6. Legumes are rich in calcium, according to Citracal, <http://www.citracal.com/calcium/foods/legumes.aspx>, with winged beans having the highest concentration of calcium, followed by soybeans, white beans, great northern beans, baked beans, navy beans, French beans, yellow beans, lentils, pinto beans, mung beans, pink beans, refried, garbanzo and many other legumes.

7. Legumes provide many essential vitamins and minerals according to the Australian Government's Department of Health and Aging. All beans provide similar nutrition and dietary fiber. A few of the more popular legumes are listed below with their vitamin/mineral content, according to "The Health Guide: at <http://www.veghealthguide.com/legumes-beans.html>

- Black beans provide folate, manganese, protein, magnesium, vitamin B1, (thiamin), phosphorus, iron, and are also packed with antioxidants
- Garbanzo beans contain manganese, folate, protein, copper, phosphorus, and iron
- Kidney bean consumption provides folate, manganese, protein, iron, phosphorus, copper, potassium, magnesium, vitamin B1 and vitamin K
- Lentils, which are also a legume, are a rich source of folate, manganese, iron, protein, phosphorus, copper, vitamin B1 and potassium
- Lima beans, which are also a legume, also referred to as butter beans, provide us with manganese, folate, protein, potassium, iron, copper, phosphorus, magnesium, and vitamin B1
- Navy beans are an excellent source of folate, manganese, protein, phosphorus, copper, magnesium, iron, and vitamin B1
- Peas, which are also legumes, contain manganese, protein, folate, vitamin B1, potassium and phosphorus
- Pinto beans give us folate, manganese, protein, phosphorus, iron, magnesium, potassium, copper and vitamin B1
- Soybeans are a rich source of manganese, protein, iron, phosphorus, vitamin K, omega-3 fatty acids, magnesium, copper, vitamin B2 (riboflavin) and potassium

8. Legumes, when eaten in place of refined starches, prevent obesity by allowing the pancreas to release safe, low levels of insulin for digesting the legumes, which helps to maintain healthy blood sugar levels. This prevents cravings and overeating by providing a longer period of feeling full after a meal. This process greatly helps to prevent obesity.

9. Legumes may help reduce cholesterol levels in the blood, thus reducing or eliminating the risk of heart disease. Legumes have absolutely no cholesterol, because they are a plant, according to a "Health Care Industry" by BNET at [http://findarticles.com/p/articles/mi\\_m0876/is\\_n74/ai\\_18001480/](http://findarticles.com/p/articles/mi_m0876/is_n74/ai_18001480/)

In summary, beans (legumes) are packed with nutrition: vitamins, minerals, calcium, protein, and antioxidants. Legumes can help to lower cholesterol levels. When eaten in place of refined starches, legumes prevent food cravings, prevent metabolic syndrome, prevent type 2 diabetes, protect against cancer, provide lots of protein, energy, calcium, vitamins and minerals, prevent obesity, and protect against heart disease. And they are very inexpensive. How can we afford *not* to eat them?

Information provided by Associated Content

