

Peas (lat. Pisum)

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Abstract. The article discusses the main properties of peas and its effect on the human body. A systematic review of modern specialized literature and relevant scientific data was carried out. The chemical composition and nutritional value of the product are indicated, the use of peas in various types of medicine and the effectiveness of its use in various diseases are considered. The potentially adverse effects of peas on the human body under certain medical conditions and diseases are analyzed separately. The scientific foundations of diets with its use are considered.

Keywords: peas, useful properties, potentially dangerous effects, side effects, contraindications, diets

Beneficial features

100 g of fresh green peas contains [1]:					
Main substances:	G	Minerals:	mg	Vitamins:	mg
Water	78.86	Potassium	244	Vitamin C	40.0
Carbohydrates	14.45	Phosphorus	108	Vitamin PP	2.090
Alimentary fiber	5.7	Magnesium	33	Vitamin B1	0.266
Sugar	5.67	Calcium	25	Vitamin A	0.230
Squirrels	5.42	Sodium	5	Vitamin B6	0.169
Fats	0.4	Iron	1.47	Vitamin B2	0.132
calories	81kcal	Zinc	1.24	Vitamin E	0.13

Table 1. Chemical composition of lemon (according to Food+).

From the above tables it follows that fresh peas bring the most benefits to the body. Both the peas themselves and the pods (suitable for consumption) contain a large amount of vitamins and minerals. In addition, this vegetable is not dangerous for those who want to lose weight - it has a low calorie content.

As for the different ways of processing green peas, they affect its nutritional value in different ways. So, freezing only partially deprives the product of nutrients and vitamins, but after conservation, a negligible amount of useful substances remains in the vegetable. Dry yellow peas, in turn, are not very rich in vitamins, but boast an extremely high content of protein and dietary fiber.

Medicinal properties of peas

Peas are one of the richest sources of vegetable protein needed by the body as a building material for muscles and bones. It also provides a long-lasting feeling of satiety, because, together with dietary fiber, it slows down the digestive process and raises the level of hormones that reduce appetite ^[6]. In terms of protein content, peas are often compared with meat, and often this vegetable becomes an integral part of the diet of vegetarians and vegans.

However, no matter how similar proteins of plant and animal origin are, they are still not identical, so peas cannot become a full-fledged meat substitute. By consuming this vegetable, the body does not receive the essential amino acid methionine, which is involved in a large number of biochemical processes. For example, 100 g of peas contains only 0.082 g of methionine, and 100 g of beef contains 0.588 g.

On the other hand, scientists came to the conclusion that a high content of methionine and its derivative, homocysteine, in the body leads to problems with blood vessels, thrombosis, and activation of genes that provoke aging. It is best to keep a balance and keep methionine in the area of \u200b\u200bthe minimum norm. This can be achieved by reducing meat consumption and adding other sources of protein, such as peas, to the diet.

Also, fresh green peas provide the body with a real vitamin charge. The vegetable is distinguished by a high concentration of B vitamins, and also contains vitamins C, PP, E, A, K. In addition, peas are rich in trace elements such as: potassium, magnesium, phosphorus, iron, zinc, selenium. All these vitamins and nutrients often play a key role in many processes in the body, and their deficiency can lead to serious diseases.

Note that along with peas, a number of valuable acids enter the body. For example, glutamine is an essential element for the functioning of the brain. This neurotransmitter amino acid is actively involved in the metabolism in brain tissues. Indispensable in the metabolic processes of the body and pantothenic acid. It also provides the synthesis of cholesterol, hemoglobin, histamine. Finally, it is difficult to overestimate the importance of folic acid, which is involved in the formation of red blood cells and contributes to the normalization of hematopoiesis.

The positive effect of peas on the digestive system is associated with the presence of dietary fiber in its composition. They act as natural probiotics, keeping beneficial bacteria alive and preventing pathogens from multiplying in the gut. This helps to prevent various gastroenterological problems and even colon cancer^[7]. Fiber also helps with constipation. And it also provokes the production of an element in saliva that is responsible for the fight against plaque.

Note that the use of peas has a beneficial effect on the human cardiovascular system. The high content of potassium, magnesium and calcium helps to maintain normal blood pressure. Dietary fiber contributes to the normalization of cholesterol levels, and accordingly reduces the risk of atherosclerosis. In addition, antioxidants, together with vitamins A and E, protect cells from destruction and thereby contribute to the fight against cardiovascular diseases, while simultaneously preventing cancer. ^[8].

It is recommended to use peas for diabetes. Firstly, this vegetable has a low glycemic index - a measure of how quickly blood sugar rises after eating the product. Fiber reduces the rate of absorption of carbohydrates, which leads to a gradual, rather than rapid rise in its level ^[9]. Moreover, studies show that due to their high protein content, peas help stabilize blood sugar in type 2 diabetics ^[10].

Nevertheless, despite the mass of useful properties, many continue to be ambivalent about peas, since it is one of the leaders among products that cause bloating and flatulence. The thing is that this vegetable is not completely absorbed in the small intestine and enters the large intestine, where the bacteria living there attack it. The combination of these microorganisms with simple sugars contained in peas leads to fermentation and gas formation. Contrary to popular belief, these gases are absorbed in such minimal quantities that they do not cause any harm to the body, but they still create certain inconveniences.

However, there are several ways to get rid of the discomfort. First, you can pair peas with foods like dill, turmeric, and mint. They contribute to the crushing of gases into small bubbles, reducing bloating. Secondly, eating sprouted or soaked peas can help. This preparation promotes the production of additional enzymes that speed up the digestion process. Finally, including peas in the diet on a regular basis allows the body to get used to it and begin to produce more amylase, which breaks down sugar, and thus prevents the fermentation process.

The use of peas in medicine

To date, this legume is not yet used in the manufacture of medicines, but it has a good potential to be involved in the pharmaceutical industry. For example, Japanese scientists believe that peas have immunomodulatory properties and can become one of the components of immunostimulating agents. In addition, for therapeutic purposes, it can be used in preparations to normalize the intestinal microflora.

It should also be noted that pea protein is used in sports and dietary nutrition from the grains of sowing peas. It stimulates the growth of muscle tissue and, unlike animal protein, puts less strain on the kidneys.

The use of peas in traditional medicine

In folk medicine, various remedies are prepared on the basis of peas, but it is not recommended to use them as the main medicine. Such natural preparations can be an adjunct to therapy or, in some cases, prevention. It is also necessary to consult with your doctor about their use.

The balance of vitamin and mineral complexes make peas a valuable dietary vegetable for nephrolithiasis. The vegetable has a diuretic effect and removes salt from the body, preventing the formation of stones. In addition, it can help break up existing stones into smaller pieces for easier removal from the body. For this purpose, folk doctors recommend making a decoction of young shoots of peas. Some advise adding the leaves of the plant and the beans themselves to it.

Shoots are collected during the flowering period, washed, crushed and poured with water (at the rate of 2 tablespoons per 1 glass of water). Bringing to a boil, leave the stems on low heat for 10 minutes. Then the broth should be allowed to brew for about 30 minutes and strain it. In order for the remedy to produce the desired effect, it is necessary to take a decoction for about one month. Usually it is drunk 2 tablespoons 3-4 times a day before meals.

For skin diseases such as eczema and erysipelas, as well as for purulent wounds, traditional healers advise using peas externally. To do this, you can mix a few tablespoons of pea flour with the protein of

a raw chicken egg and mix until smooth, apply to the affected area of $\200b\200b$ the skin. Another option: mix egg white with unripe peas mashed into a pulp.

Also, peas are considered a good helper in the fight against boils and carbuncles. For the treatment of such purulent-inflammatory diseases, poultices are made from pea flour. They provide accelerated maturation and softening of damaged skin segments. By the way, you can make your own flour at home. Dry grains of peas need to be crushed and brewed with boiling water in a ratio of one to one. Stir the mixture, cool it to avoid burns and apply it warm to the sore spot, covering it with paper and bandages. Leave for a few hours.

In addition, pea flour is recommended for digestive problems (especially constipation), high cholesterol (as a prevention of atherosclerosis) and high sugar levels. Also, traditional healers believe that pea flour helps restore normal blood circulation in the brain, which, in turn, leads to a decrease in headaches and an improvement in memory. For such purposes, usually take 1 teaspoon of flour on an empty stomach daily.

The use of peas in oriental medicine

In the East, peas have been known since very ancient times. For example, references to it are found in the ancient Indian Vedas. According to legend, this legume was given to people by the gods when the earth stopped producing crops. Legendary ruler and incarnation of God on earth, Prithu Maharaj, knew how to communicate with Devas - demigods who control energies, stars, elements. To save people from hunger, they advised the ruler to plant legumes, which, during growth, accumulate the energy of the sun and then transfer it to people.

In ancient China, peas were a symbol of wealth and prosperity. There it is referred to as neutral products that affect the body gently and soothingly. Chinese folk doctors believe that this vegetable stimulates the spleen, improves digestion, fights constipation, has a mild diuretic effect and, as a result, reduces swelling. In general, peas are considered a healthy product that tones and strengthens the body.

In the Tibetan classical medical treatises, peas were suggested to treat skin diseases. For this, the affected areas were advised to rub with pea flour. It was also believed that such procedures improved blood circulation and helped with indigestion.

Peas in scientific research

Scientists from the University of Copenhagen have found that vegetable protein saturates the human body better than animal protein. The experiment involved 43 young males who were served three meals of either vegetable protein rich foods (mainly peas) or animal protein foods (mainly pork, venison and beef). As a result, it turned out that those who received legumes were satiated better and consumed an average of 12% fewer calories at the next meal than those who ate meat ^[11].

Scientists attribute this to the high fiber content of peas. Although legumes are less saturated with protein than meat, they create a feeling of fullness due to the coarse dietary fiber in their composition ^[11]. The results of the experiment were important in terms of including peas in the diet.

The following studies were not long in coming. So, taking the results of previous experiments as a basis, Canadian scientists continued to develop this topic. In their experiment, 940 people (men and women) took part, who received 130 g of peas per day for 6 weeks. At the same time, they did not limit themselves in other products and led a familiar lifestyle. As a result, even when receiving the minimum portion of peas and without effort, on average, each of the participants lost 0.34 kg during this period ^[12].

Scientists from the same research center in Toronto found out that the introduction of legumes, including peas, into the diet helps to reduce cholesterol levels by 5%. According to the researchers, daily consumption of these products by 5-6% would reduce the risk of developing cardiovascular diseases, which today are considered one of the main causes of death. Note that a more marked reduction in cholesterol was seen in men, since, as a rule, they monitor their diet less and their initial indicators are worse than in women^[13].

Japanese scientists, in turn, believe that peas can be used to solve problems with the gastrointestinal tract. After a series of experiments on mice, they came to the conclusion that the effect of the vegetable is similar to probiotics : it significantly improves the functions of the mucous membranes, raises local immunity and prevents the vital activity of pathogenic microorganisms. However, according to the researchers, the problem is that to achieve the desired result, peas need to be eaten in huge quantities, so now they are studying the mechanism of its action and will soon try to synthesize the necessary substance ^[14].

Among other things, peas have proven effective in treating hypertension and relieving symptoms of chronic kidney disease. Often these two diseases are connected in a vicious circle: high blood pressure negatively affects the functioning of the kidneys, and kidney failure keeps the pressure at a high level. However, when consuming pea protein, it is possible to delay or even prevent the development of kidney failure. If the disease has already developed, then pea protein will at least maintain the pressure at a normal level, reducing the burden on the kidneys ^[15].

The researchers conducted an experiment on rats in which half of the rodents with polycystic kidney disease were given pea protein hydrolyzate (the protein is partially broken down and purified by enzymes, after which only the most essential amino acids remain), and the other half did not change their usual diet. As a result, a 20% drop in blood pressure was noted in animals on a protein diet. These results are encouraging , as the majority of deaths in patients with renal insufficiency are complications caused by high blood pressure ^[15].

Peas for weight loss

So far, nutritionists have not been able to give an unambiguous assessment of peas. This is undoubtedly a very useful product, but its inclusion in the diet when losing weight is an issue that leaves room for discussion. For example, in the lifting diet of the famous Hollywood doctor Nicholas Perricone, peas are in the category of forbidden vegetables, but the famous Canadian nutritionist Russell de Souza claims that daily consumption of this legume helps to lose extra pounds without much effort.

Well, first you need to figure out what kind of peas we are talking about. Since when permitting or prohibiting the use of a particular product, several parameters are taken into account and they are different for peas, depending on the methods of its preparation. First, you need to look at the calorie content. From this point of view, fresh green peas are absolutely suitable for any diet. It contains a lot of nutrients and vitamins and only about 80 kcal per 100 g. The situation is completely different with dry peas, whose energy value reaches 350 kcal per 100 g.

However, this is not all. Controversy arises when considering the second parameter - **the glycemic index of the product** (an indicator of the influence of carbohydrates on changes in blood sugar levels). So, for fresh peas it is 50 units, and for dry peas it is 25. That is, fresh peas immediately give off energy and the glucose level in the body rises faster and, accordingly, a feeling of hunger arises much faster. But when eating dry peas, which also contain a lot of protein and fiber (due to which it is digested more slowly), the feeling of satiety remains for a longer period of time.

So, if the diet involves the rejection of meat, then dry peas can make up for the protein deficiency. In addition, it will provide the necessary energy and strength during physical exertion. Moreover, the results of some studies show us that with the regular intake of small portions of dry grains, a person loses excess weight. This is mainly due to the fact that after a dish of peas you do not want to eat for a longer time. In addition, this vegetable helps to improve the functioning of the digestive tract, which is also important for normalizing weight. If the calorie content of peas is still too high for you, then you can include in your diet much more "light" fresh green peas.

Finally, if you already have enough protein in your diet, then eating peas may really be worth giving up. Since a large amount of protein creates a strong burden on the kidneys. Also, a protein diet is contraindicated for those who are trying to lose weight solely through changes in diet, without physical exertion. In this case, the accumulating protein will gradually turn into glucose and only provoke weight gain.

Peas in cooking

Peas are loved and have long been used in almost all countries of the world. It is known that it was popular among ancient Greek commoners. In Russia, since the Middle Ages, many different dishes have been made from peas, but in those days it was also eaten mainly by the poor. But in France, fresh green peas were served in rich houses as a delicacy, and dry beans were the lot of ordinary people.

Today, peas are by no means considered a second-class food. For example, in Holland, one of the best restaurants in Amsterdam, which is located near the Royal Palace, prepares a signature dish - pea soup with smoked meats. In some peoples (for example, in Latin America), this legume generally forms the basis of the plant menu. In the Middle East, by the way, the so-called "mutton peas" or chickpeas are widespread. However, this is not a special variety of peas, but its close relative - a legume belonging to a different genus.

In cooking, peas are used in different ways: they are eaten fresh, added to meat dishes, salads, canned, soups, cereals, mashed potatoes, meatballs are made from it, it is used as a filling for vegetarian dumplings, pies and pancakes. And in China, they even came up with the idea of adding peas to ice cream.

Interestingly, in summer it is customary for us to eat fresh green peas separately from everything else, although they can fit perfectly into any vegetable salad. For example, it works well if you add it to tomatoes, red onions, tofu cheese and chili peppers (or garlic). You can dress this salad with olive oil.

Another interesting point: we are used to preparing pea soup from dry grains, but there is also a lighter summer version of this dish that uses a young vegetable. The recipe for pea soup is very simple. You should bring the water in the pan to a boil, throw a few mint leaves into it, throw in the peas (you can use a frozen product in the off- season) and cook for 3 minutes. During such a short-term heat treatment, useful substances will not have time to collapse. Then you need to drain the water, grind the peas and mint in a blender and pour the resulting mixture back into the broth. Add salt, pepper and olive oil.

If you prefer traditional soup or pea puree made from dry grains, then you should pay attention to a few useful life hacks . Firstly, it is advised to soak the peas before cooking - this is known to many, but not everyone knows that in the process you can add one teaspoon of baking soda to the water and this will remove the enzyme blockers that help the peas digest better and faster. Thus, it will help to partially solve the problem of bloating and flatulence.

Secondly, if you forgot or did not have time to soak the beans, then to speed up their boiling, you need to add a little cold water to the pan every 5-7 minutes. You can cook peas in a slow cooker. True, it will take more time - about an hour and a half in the "extinguishing" mode.

As for the compatibility of peas with other products, it is good to use it with fresh bell peppers, all kinds of cabbage, cucumbers, carrots, tomatoes, zucchini, eggplant and beets. Sauerkraut and cucumbers are also suitable. You should not combine peas with grains and dairy products.

The use of peas in cosmetology

Despite the fact that legumes in general and peas in particular have a lot of useful properties, cosmetics based on them are so rare that they can be counted on the fingers of one hand and basically we are talking about providing an anti-aging effect. Thus, the Latvian company ITLA.LV has released a series of creams " La Femme élégante ", which contain pea extract. Lifting creams and masks with an extract of this legume were also developed by the Spaniards (" Natura Bisse " ultra-repairing eye contour cream) and Russians ("Russian field" anti-wrinkle cream).

And although now peas are not used in the most active way in cosmetology, they used to be considered a good helper in the fight against skin diseases. According to legend, Catherine II suffered from problematic facial skin and, ashamed to show it in public, applied a layer of flour as a powder. Naturally, this only aggravated the situation and new spots and irritations appeared on the face. Then one of the court physicians advised the Empress to try a Roman pea mask. In a wooden mortar, it was necessary to crush the peas, add sour cream and apply on the face several times a week. The Empress was very pleased with the results, as her skin became white and smooth.

Although the effectiveness of "pea" cosmetics has not been scientifically confirmed, women still quite often use self-prepared products. In principle, there is common sense in this, since this vegetable has a complex of B vitamins, vitamin E and antioxidants that have a positive effect on the condition of the integument. Masks are used both to eliminate imperfections and to maintain healthy and youthful skin.

For the care of dry and normal skin types, it is recommended to use fresh green peas, which provide good hydration. To prepare the mask, it must be mashed to a puree state. As a rule, the procedure is carried out once a week. Owners of oily skin type are better suited for products made from dry peas - they dry the epidermis and fight acne. Typically, dry beans are either boiled and then mashed into a puree, or ground in a coffee grinder to a flour state. The mask must be applied 2 times a week. Keep funds on the skin should be no more than 10-15 minutes, and then rinse well with water.

Among the most popular mask recipes for dry skin, we highlight the following:

- **Berry -pea.** Two tablespoons of puree from fresh peas are mixed with two tablespoons of blackcurrants, crushed as much as possible. It is believed that such a remedy helps fight wrinkles.
- Olive-pea. Two tablespoons of fresh pea puree are combined with one tablespoon of olive oil, three drops of orange ether and raw egg yolk. Such a mask should have a lifting effect.
- **Pure pea.** If you just want to moisturize the skin, then it is enough to apply mashed peas on your face without adding any other ingredients.

For oily skin, the following recipes can be useful:

• **The classic mask** is designed to eliminate oily sheen. Three tablespoons of pea flour must be poured with water or milk so that a viscous mixture is obtained.

• A cleansing mask is prepared with 30 g flour, 30 g oatmeal, a little water, a pinch of nutmeg and cinnamon. The mask should have a peeling effect, so you need to apply it with massage movements, and then leave it on your face for 5-7 minutes.

Dangerous properties of peas and contraindications

The benefits of peas are undeniable, but at the same time, there are some contraindications to its use. For example, it is not recommended for people with gout, during an exacerbation of gastrointestinal diseases, with acute nephritis and circulatory disorders.

In addition, peas contain so-called antinutrients - compounds that interfere with the absorption of nutrients. Of all legumes, peas have the fewest antinutrients , but they are still there and, in addition to neutralizing beneficial minerals, can create digestive problems. Especially caution should be exercised by people who consume peas as their main protein food, and those who suffer from chronic malnutrition.

Among the most active antinutrients in peas are phytic acid and lectins . The former binds minerals and prevents the body from absorbing enough iron, calcium, zinc, and magnesium. And the latter contribute to increased gas formation and bloating. In order to prevent the negative impact of peas on the body and allow all useful elements to be absorbed, it is necessary:

- eat beans, especially fresh, in moderate portions (120-170 g);
- sprouting or soaking beans before cooking and eating.

How to choose and how to store peas

When buying fresh green peas, you need to pay attention to the color: the pods must be green without yellowing . In addition, they should break easily and with a crunch, releasing juice. Note that this is a perishable vegetable that quickly loses its taste and useful qualities, so it is advisable to eat it immediately after harvesting or purchasing. It is best to store in a closed container in the refrigerator for no longer than 7-10 days.

When choosing dry peas, you should look at the size of the peas: they should be medium-sized (3-4 mm in diameter). The color can be either yellow or green, but not purple, since these are already fodder varieties. When dry, this legume can be stored in plastic packaging for up to 5 years, and in a hermetically sealed container or in a vacuum - all 10. Although it is preferable to use glass containers with a little salt at the bottom - this will help repel insects and eliminate excess moisture. By the way, if you are wondering how to quickly cook pea porridge and want the peas to be easily boiled to a homogeneous mass, then you need to choose dry chopped grains.

Finally, with regard to canned peas, when choosing it, you should give preference to glass containers, which allow you to consider the quality of the product. Peas should be whole and not dented. Also, the lid on the jar should in no case be swollen. In addition, you should definitely pay attention to the composition. In a quality product there is nothing but water, sugar, salt and the peas themselves, the content of which, by the way, should not be lower than 65%. The date of manufacture also plays an important role, since from May to July, manufacturers, as a rule, use fresh raw materials, and the rest of the time they use frozen or sublimated.

Interesting facts about peas

In many cultures, the appearance of peas on earth is associated with divine providence. For example, according to one of the legends, when God expelled the sinning Adam from the garden, he had to work

hard. And so, when he plowed the ground, tears rolled down his cheeks and, falling into the soil, turned into peas.

From more reliable information, it is known that in Russia peas were often planted along the roads so that distant travelers could get enough. It was also used for various rituals. For example, in order to attract good luck and wealth, they put 22 dry peas in an iron mug, covered it with their left hand and rattled the contents, going around the house in a circle. But in ancient Rome, peas were used for love spells. So, there was a belief that parts of a pea divided in half are attracted, so the girls left one half for themselves, and threw the other to their lover.

In Japan, peas have long and still symbolize good health. It is believed that it must be on the New Year's table along with noodles - a symbol of longevity and rice cookies - a symbol of abundance ^[17]. In Medieval France, in turn, peas not only became a symbol of health, but turned into a real savior of the people. The unsightly houses of ordinary people kept heat very poorly, so in cold winters, many fell ill and died.

The situation was saved by King Charles V, who brought from one of his visits to Spain an unusual new crop - peas. It turned out that one Spanish nobleman treated Charles to pea porridge with fried pork. The French monarch liked the fact that the food remained warm throughout the two-hour meal. He ordered to bring home several hundred carts with this legume. It was sown in fields in the south of the country, and from that moment on, pea porridge with bacon became a French folk dish that warmed many families in severe frosts.

But in ancient Greece, beans had an ambiguous reputation. Mostly poor people ate them, while intellectuals believed that peas dull the mind and cause insomnia. The famous mathematician and philosopher Pythagoras even forbade his students to use it. There is a legend about how the Pythagoreans , who were running away from their enemies, suddenly stopped and were completely defeated, because they did not dare to cross the field sown with beans ^[17].

Interestingly, there is a rare genetic disease Fauvism. It is most common in Iran, Iraq, Morocco, Italy and France. Its origin is still unclear, and the mechanism of damage to the body is not fully understood. Some of the substances contained in peas, getting into the blood, start the process of disintegration of blood cells - erythrocytes. There is temporary paralysis. Those suffering from this disease are not recommended not only to eat peas, but also to be in places where legumes bloom.

By the way, it used to be believed that Fauvism is a disease of monarchs, which is transmitted from generation to generation. No wonder, in the famous fairy tale of Hans Christian Andersen's The Princess and the Pea, the prince, who wanted to marry a member of the royal family, married a beggar woman only because she could not fall asleep on the feather bed, under which lay one single pea. Since her body reacted to the bean culture, one could be sure that the girl was actually a real princess.

Continuing the theme of monarchs and peas, one cannot help but recall the well-known expressions "under Tsar Pea", "remember Tsar Pea", "when Tsar Pea fought with mushrooms". This same King Pea is a character in satirical works, where he is portrayed as a legendary ancient ruler, and playful phraseological units, which basically mean "in ancient times."

peasouper " (pea soup) that exists in English has a very serious and, unfortunately, negative meaning. So in the middle of the twentieth century in England they called the type of thick fog. After the anticyclone brought cold foggy and windless weather to London, people began to use more coal to heat their homes. This coal was of poor quality and contained sulfur. After burning it, toxic substances entered the air, which mixed with exhaust gases from vehicles and dust, forming thick smog. The darkness that covered the capital practically paralyzed the city for several days. Due to poor visibility, transport stopped running, people tried not to go out into the streets, although smog penetrated into the premises. Because of the soot particles, which gave the fog a yellow-black color, they began to call it "pea soup". As a result, several thousand people died in London (most of all the elderly and people suffering from respiratory diseases).

Varieties and cultivation

Growing peas is not a very difficult task. He feels best on light soil, rich in potassium and phosphorus, but without nitrogen. It is best to choose a sunny area, protected from the wind. Planting time for pea seeds can vary from the 20th of April to the beginning of July (exceptionally early ripening varieties). Flowering occurs in 28-60 days, depending on the variety. A month later, the first harvest appears. Fruiting lasts an average of 30-40 days.

Note that peas can be planted both with the help of germinated grains and with the help of dry ones. However, in the latter case, it is impossible to do without presowing seed treatment. Some gardeners recommend lowering them for 5 minutes in a warm ($40 \circ C$) solution of boric acid at the rate of 2 g per 10 liters of water. Others advise doing a full soak of the seeds in water at room temperature for 12-15 hours (water should be changed every 3 hours).

As for varieties, vegetable peas are divided into two main groups: *sugar* (brain varieties) and *shelling*. Sugar peas are more tender, can be eaten with the pods, and are usually used for canning. And shelling varieties contain more starch, their pods are unsuitable for human consumption, and the grains are usually dried.

So, peas are the most useful vegetable that provides the body with a good vitamin complex and supplies the necessary minerals. Moreover, in dry form, it, like no other product, is rich in protein and dietary fiber with a relatively low calorie content. Unlike other protein foods, peas do not cause an increase in cholesterol levels. And the regular use of its small portions will have an extremely positive effect on human health.

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Peas - useful properties, composition and contraindications

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Abstract. The article discusses the main properties of peas and its effect on the human body. A systematic review of modern specialized literature and relevant scientific data was carried out. The chemical composition and nutritional value of the product are indicated, the use of peas in various types of medicine and the effectiveness of its use in various diseases are considered. The potentially adverse effects of peas on the human body under certain medical conditions and diseases are analyzed separately. Considered scientific basics diets With his application.