



## Garlic

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**Abstract.** The article discusses the main properties of garlic 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 garlic in various types of medicine and the effectiveness of its use in various diseases are considered. The potentially adverse effects of garlic on the human body under certain medical conditions and diseases are analyzed separately. The scientific foundations of diets with its use are considered.

**Keywords:** garlic , useful properties, potentially dangerous effects, side effects, contraindications, diets

## Beneficial features

## Chemical composition and presence of nutrients

Table 1. Chemical composition of garlic (according to [Food+](#)).

100 g of fresh garlic contains [5]:					
Main substances:	G	Minerals:	mg	Vitamins:	mg
Water	58.58	Potassium	401	Vitamin C	31.2
Carbohydrates	33.06	Calcium	181	Vitamin B6	1.235
Sugar	one	Phosphorus	153	Vitamin PP	0.700
Squirrels	6.36	Magnesium	25	Vitamin B1	0.200
Alimentary fiber	2.1	Sodium	17	Vitamin B2	0.110
Fats	0.50	Iron	1.7		
calories	149kcal	Zinc	1.16		

Garlic contains many useful substances and is a fairly high-calorie product. On the one hand, you should not worry about excess weight at all, because due to the pungency this vegetable is usually consumed in small quantities. On the other hand, it is considered a powerful appetite stimulant.

## Medicinal properties

In addition to the presence in the composition of garlic of such important substances as potassium, calcium, phosphorus, vitamins B and C, it boasts a high content of selenium, manganese, iodine, sodium and essential oils. It is difficult to overestimate their importance for a person. So, for example, selenium protects the body from cancer and thanks to it, thyroid hormones are produced. Manganese is involved in a huge number of internal processes, and is also indispensable for the incorporation of calcium into bone tissue. Vitamin B6, among other things, affects the functioning of the central nervous system, namely, it contributes to the production of serotonin.

Moreover, garlic has components that make it special - phytoncides. These are volatile substances that help the plant fight against harmful microorganisms and some insects. Due to this, garlic provides bactericidal, anthelmintic and fungicidal effects.

The antiparasitic properties of the vegetable have been recorded by scientists from different parts of the world. That's just the experiments were carried out so far exclusively on mice and guppies. It is assumed that garlic should have a similar effect on the human body, but without consulting a doctor, it is better not to resort to such treatment, because an excess of phytoncides in the body can lead to serious poisoning.

As for colds, the results of the studies are encouraging. Scientists are sure that the volatile oils and essential oils contained in garlic have an antiviral and antibacterial effect. In one recent study, it was found that a group of people who regularly consumed garlic were three times less likely to catch a cold than those who did not consume garlic. Also, when using this vegetable, the duration of the disease turned out to be less.

Among other things, garlic has a positive effect on the cardiovascular system. Its regular use helps to stimulate hematopoiesis, as well as lower cholesterol and blood pressure (by an average of 5 mm Hg). According to research results, garlic increases fibrinolytic ( antithrombotic ) activity, which decreases with atherosclerosis and myocardial infarction <sup>[8]</sup>.

The rate of blood flow to the genitals and pelvic organs of a man also depends on the condition of the arteries and blood vessels. And endurance largely depends on the ability to absorb oxygen transported by the blood. Since garlic actively affects both the processes of hematopoiesis, and the ability to absorb oxygen, and blood viscosity, its effect on sexual function in men should not be underestimated. In addition, this vegetable promotes the production of testosterone, which increases male libido.

Finally, modern biochemical studies have identified the organic compound alliin in the composition of garlic, which is located in the cytoplasm. When biting or cutting a clove of garlic, the integrity of the cells is broken and alliin reacts with the enzyme alliinase, located in the vacuoles, forming a sulfur-containing substance called allicin. It is allicin that gives garlic its sharpness and that notorious smell. Interestingly, this element is not absorbed in the body, but is excreted by any means - with breathing, urine, sweat.

Despite this hard to get rid of smell, allicin may help prevent the risk of developing lung cancer. According to studies by Chinese scientists, eating a head of garlic twice a week reduces the risk of cancer by 44%, even in those people who are at risk (for example, smokers) <sup>[9]</sup>. Being a strong antioxidant, allicin kills tumor cells and reduces the likelihood of infectious processes in the oral cavity and on the mucous membranes of the respiratory tract.

## In medicine

To date, the pharmaceutical market offers several herbal medicines based on garlic. First, it is a **natural dry powder of garlic bulbs in capsules**. It is indicated to drink it for hypertension, atherosclerosis, colds, dysbacteriosis, impotence, and also as a prevention of myocardial infarction. This drug is sometimes also taken as part of a comprehensive treatment for oncopathologies. The course of admission usually lasts 2-3 months.

Despite the fact that the drug is natural, it is necessary to consult a doctor before use.

Another common remedy is **garlic tincture**. It is usually taken for acute infectious and inflammatory diseases of the respiratory system (bronchitis, rhinitis, tonsillitis, sinusitis, pneumonia), atonic constipation, atherosclerosis, enterobiasis. In addition, the tincture is used externally for dermatitis, pyoderma or purulent wounds. It also helps to relieve itching, contributes to the fight against calluses and corns, has a depigmenting effect on the skin. The method and frequency of application of the tincture must be regulated by the doctor.

### **In folk medicine**

Since ancient times, garlic has been known as a powerful healing agent, and the ancient Egyptians did not even eat it for some time, but used it exclusively to treat various diseases. Until now, in many countries of the world, garlic is one of the main components in traditional medicine recipes. For example, in India, asthma is treated with this vegetable, the French escape it from the flu, the Germans from tuberculosis. In Italy and Spain, traditional healers recommend using garlic to treat intestinal diseases, and Afghans find it useful for mild ailments and fatigue.

In our folk medicine, this vegetable is used in the treatment of a huge number of ailments, but the main thing to remember is that garlic is a spice, and not an independent food, and certainly not a self-sufficient medicine. It can be used for treatment in combination with other drugs and only with the approval of the doctor. Since garlic is a very caustic vegetable, care must be taken not to overdo it, otherwise you can get serious burns of the mucous membranes and skin. You should also remember that you need to be very careful when giving garlic to children. Even in the absence of allergies, a large amount of this vegetable can cause severe pain in the gastrointestinal tract.

The most popular among the people are prescriptions for cold medicines. So, traditional healers advise drinking garlic broth for coughs and sore throats. To prepare it, you need to bring 1 cup of water to a boil, add a quarter of a spoon of chopped garlic and boil for 5 minutes over low heat. Allow the broth to cool, strain it through cheesecloth and drink half a cup once a day.

With a cold, it is recommended to breathe infusion of garlic. To carry out such an inhalation, you need to crush a few cloves, pour a glass of water and keep on low heat for 20 minutes, inhaling the vapors.

Note that garlic beads, beloved by many grandmothers, from viruses, alas, do not save or cure. The only benefit from them is that they slightly, but still reduce the concentration of viral particles around a person in the first few hours of wearing the "decoration".

According to traditional medicine recipes, garlic is also excellent for the treatment of poisoning. It is necessary to boil three cloves of garlic and a few small pieces of ginger in one liter of water for 10 minutes. It is necessary to prepare and drink the drug after the onset of the first bouts of nausea. However, it is strongly not recommended to get involved in such a drink.

In case of bites of wasps, bees or mosquitoes, traditional medicine has in store a recipe for garlic compresses. To do this, you need to grind a few cloves, mix them with a small amount of warm water

and rinse the bite or wound with this mixture, and then make a compress from this liquid. You can also briefly apply cut teeth to the affected area, but this method can lead to skin burns.

To improve erectile function, men are advised to use garlic tincture. It is made at the rate of 1 kg of vegetable per 0.5 liter of vodka. Garlic must be crushed and poured with alcohol. Then tightly close and let it brew in a dark place for a week. After that, the mixture must be filtered through cheesecloth and taken 1 tablespoon three times a day.

You can also bring to a boil 200 ml of white wine with the addition of 3-4 crushed garlic cloves. After cooling, the liquid is poured into a glass bottle, closed and left in a dark place. Men need to take this medicine half an hour before meals, 1 teaspoon three times a day. Usually the course of treatment is three days, after which it is necessary to take a 10-day break and then repeat the procedure again for another three days.

### **in oriental medicine**

In the traditional oriental classification of food, garlic belongs to the group of warm foods that improve metabolism and stimulate the digestive process. In China, this vegetable is used to treat diseases associated with the respiratory and gastrointestinal tract. He is also considered a good helper in the fight against rheumatism and beriberi. Moreover, garlic is used as a prevention of baldness.

In search of a remedy to prevent complications after severe burns, the Chinese physician Shu Rongish turned to ancient Chinese and ancient Greek herbalists, who helped him create a recipe for a raw burn ointment. The main task of this balm is to disinfect and restore the nutrition of damaged skin. The doctor does not reveal the secret of his recipe, but it is known that one of the main components of his remedy is garlic. In addition to it, there is also honey, salt and sesame seeds.

It is also interesting to note that in 1971, during research in Tibet, ancient clay tablets were found in a Buddhist temple. Having deciphered them, scientists discovered a recipe for rejuvenating the body, the main ingredient of which was garlic <sup>[6]</sup>.

### **In scientific research**

A recent medical study at Johns Hopkins University (USA) has revealed the effectiveness of garlic essential oil in the fight against Lyme disease. Despite the fact that conventional antibiotics can also cope with this disease, in 10-20% of cases, patients report the onset of symptoms (joint pain, fatigue, etc.) even after undergoing treatment. Scientists agree that dormant bacteria remain in the human body, which can be activated, for example, against the background of stressful situations. During the experiments, garlic essential oil killed pathogenic microorganisms within 7 days <sup>[10]</sup>.

The beneficial effect of garlic on the functioning of the cardiovascular system was noted in studies in 2007 <sup>[11]</sup>. Then it was found that the interaction of the components of garlic with red blood cells leads to vasodilation, as well as a decrease in blood pressure. Continuing to study the mechanisms of garlic's effects on the body, scientists from the University of Los Angeles recently found that garlic extract successfully destroys soft plaque in the arteries in patients with metabolic syndrome, which causes arterial hypertension. In addition, the drug helps prevent heart attacks, as it slows down the formation of new plaques <sup>[12]</sup>.

American scientists from Washington came to the conclusion that one of the components of garlic (diallyl sulfide) is many times more effective than antibiotics in the fight against the *Campylobacter* bacterium, which lives on the top layer of poultry meat and causes gastroenterological problems.

Unlike antibiotics, diallyl sulfide easily penetrates the protective membrane of pathogenic bacteria and kills it. Scientists plan to develop a new drug for food poisoning, using this component as the main <sup>[13]</sup>.

Also, researchers have long discovered the anti-cancer properties of some components of garlic <sup>[14]</sup>. Moreover, they concluded that heating in a microwave or heat treatment of a vegetable leads to a decrease in its anti-cancer activity. Scientists suggested cutting the cloves and leaving them for 10 minutes before cooking. Due to the violation of the integrity of the cells, during this time, a chemical reaction has time to occur in the garlic, which forms a substance that can have a destructive effect on cancer cells <sup>[15]</sup>. Interestingly, researchers have recently found benefits even from sprouted garlic. Its antioxidant capacity is superior to that of fresh heads <sup>[16]</sup>.

Finally, at the University of California, Loma Linda, experiments were carried out with gamma irradiation of human leukocytes. Basically, the cells died from a large dose of radiation, but white blood cells cultivated in garlic extract retained their viability. As a result, the doctors who conducted the experiment came to the conclusion that garlic preparations are a good prevention for people interacting with equipment that emits ionizing radiation.

### **In cooking**

Thanks to its spicy taste and characteristic smell, garlic is loved by cooks in many countries of the world. In Italian cuisine, for example, cooking almost any dish begins with a little olive oil dripped into a frying pan, a few cloves of garlic are put on it, they are fried for a short time so that they give off flavor, and then the main ingredients are added. Interestingly, in addition to the heads themselves, when preparing various dishes, it is quite possible to use the leaves and arrows of the plant.

One cannot ignore the fashionable culinary trend of recent years - black garlic. To the surprise of many, it turns out that this is not a special variety at all, but simply an unusual way of cooking. Garlic heads are exposed to high temperatures (about 40°C) for a long time (2-3 weeks). As a result, after a series of chemical reactions, the garlic bulbs begin to darken and become black. At the same time, they have a sweetish aftertaste, and they lose their characteristic garlic smell, while retaining almost all the properties of a fresh vegetable.

Note to fans of exotic dishes: in the town of Gilroy (USA) they sell garlic jam. This, of course, is not a dessert, but rather a sweet-spicy-spicy sauce that goes well with meat. You can also find unusual garlic ice cream here. They also sell roasted garlic in Gilroy. When exposed to high temperatures, the vegetable loses its sharpness and becomes very soft. Here it is served with meat or simply spread on bread.

As for the combination with other products, it is advised to combine garlic with whole grain cereals (oatmeal, buckwheat, wheat, etc.), which contain a lot of zinc and iron. Garlic contributes to a better assimilation of these elements. Also, this vegetable is in harmony with parsley, cilantro, black pepper and watercress.

Finally, a few words about the unloved garlic smell, which is so difficult to get rid of after eating. As mentioned earlier, simply "chewing" this aroma with chewing gum will not work, since it leaves the body not only with breathing, but also with other secretions. However, scientists still came to the conclusion that animal fats can help to quickly drive away the obsessive odor from the body. For example, you can eat garlic with cheese or drink it with milk. Lemon, apple, and mint leaves may also help. In addition, garlic loses its smell during heat treatment.

### **In cosmetology**

In professional cosmetology, garlic extracts and extracts are most often found in the composition of scalp care products and as a component responsible for the prevention of hair loss. Reviews of these funds are controversial, not giving a clear idea of their effectiveness. In home cosmetology, garlic is also actively used in the fight against acne (blackheads) and warts, sometimes it is part of moisturizing masks.

The expectations of professional and home cosmetologists are mainly related to the antibacterial effect of garlic, which, in this case, is justified, since one of the main causes of inflammatory acne skin disease is the vital activity of the *Propionibacterium bacterium. acnes*. Pathological changes that occur with the sebaceous glands and hair follicles create prerequisites for reducing the bactericidal action of sebum. Artificial disruption of clogged accumulations of pus under the epidermis leads to the spread of bacteria. In these cases, garlic comes to the rescue, presumably reducing the activity of microorganisms.

In home cosmetology, there are many recipes for acne based on garlic. One of them, for example, came from the traditional Bulgarian herbal practice. To prepare an alcohol extract, take one juicy garlic clove, grind it into gruel and pour vodka (alcohol) for 3-4 hours. The resulting lotion is filtered and applied pointwise 2-3 times a day to the places where acne foci appear.

The destruction of garlic cells (grinding into gruel) plays, in this case, a key role, since alliin, located in the cytoplasm, and the enzyme alliinase, located in the vacuoles, are combined in this process. Their interaction results in the organic compound allicin, which is associated with the bactericidal as well as fungicidal (antifungal) action of the product.

The ability of garlic to resist microorganisms gives rise to hopes for the effectiveness of this component in the composition of warts, which are most often benign formations, usually of viral etiology. The effectiveness of folk cosmetology here is regularly challenged by medicine, but this does not reduce the number of recipes for preparing a medical and cosmetic mixture. The essence of the recommendations is to regularly apply garlic juice to the wart 3-4 times a day until it disappears completely.

The cosmetic effect of garlic, judging by the number of recipes, should be especially noticeable in the fight against corns. Here are just a few recipes for preparing a mixture that must then be applied to corns:

- 3-4 slices are peeled, rubbed on a fine grater and added to the crushed plantain leaves. Then, to dilute, a few tablespoons of boiled milk and aloe juice are added.
- The garlic clove is boiled in milk and pounded in a mortar to a mushy state.
- A clove of garlic is baked in the oven, after which it is peeled and mixed with butter in a mashed form.

Regarding those recipes that involve heat treatment of garlic (baking, boiling in milk), it should be noted that the above-mentioned allicin has low thermal stability and quickly collapses when heated. In addition, it easily decomposes when mixed with alkalis.

### **Alternative uses**

In the last decade, aquarium fish enthusiasts have begun to regularly discuss the use of garlic in the aquarium trade<sup>[19]</sup>. In particular, it was about the treatment of fish from little-known diseases that were caused by the mass importation of those inhabitants of aquariums that were kept in Asian farms and little was known about the conditions of transportation and treatment of which. The acquisition of

parasite resistance to conventional drugs has created a need to find a new affordable means of prevention. The choice fell on garlic.

Since there has not been a systematic laboratory analysis of the effectiveness of garlic, amateur aquarists themselves have tested different dosages of garlic powder and juice of fresh bulbs at home. The result of almost all experiments was encouraging and, as a rule, was comparable with the effect of classical preparations on parasitic organisms. However, scattered experiments did not give clear ideas about the optimal dosage of the product and the choice of the form of supplementation (in the form of a whole head or garlic extract). Aquarists had to act at their own peril and risk, since exceeding the concentration could cause a violation of the biological balance and an increase in the oxidizability of the water.

Preliminary results indicated that garlic was more effective when added to food and limited effectiveness when infused with oil extracts, which "spots" remained on the surface and were more slowly destroyed when they reacted with active substances in the aquarium water.

### **Dangerous properties of garlic and contraindications**

There is no doubt that garlic brings many benefits to the human body. However, do not forget about the other side of the medal. This vegetable has potent substances, an overabundance of which can lead to undesirable consequences and only aggravate the situation. When eating and especially treating garlic, you must be extremely careful and not abuse it. You should also limit the use of this vegetable in the following cases:

- on empty stomach;
- a week before the upcoming operation, as it affects blood clotting;
- with pancreatitis, cholelithiasis, liver diseases, since it strongly stimulates the digestive system and can lead to spasm and heartburn;
- with obesity, as it causes appetite;
- with epilepsy, as it can provoke an attack.

### **Botanical description**

This is a perennial herbaceous plant, recently belonging to the Amaryllis family. Prior to the latest phylogenetic studies, it, along with other onions, constituted an independent family with the same name <sup>[1]</sup>.

### **origin of name**

In science, this vegetable is called the Latin phrase *allium. sativum* (lat. Garlic seed). However, the same word "allium" (lat. garlic) is used in science in a broader sense, covering the entire genus Onion, to which, in addition to garlic itself, wild garlic, onion, leeks, etc. belong. Scientists cannot accurately determine the etymology of this word, but, according to one version, it came from "ala" (lat. wing) and implied the resemblance of a bird's wing to a clove of garlic.

Linguists-etymologists believe that the Russian name "garlic" is borrowed from the Proto-Slavic language and has a common root with the verb "česati" (Pra-Slav . *scratch, split, tear* ). Most likely, the name implied the ability to split the head of garlic into cloves <sup>[2]</sup>.

### **Story**

Researchers agree that the progenitor of garlic was a long-pointed onion, and its native home was the territory of Central Asia (mountainous regions of Uzbekistan, Tajikistan, Turkmenistan, northern Iran, Pakistan and Afghanistan) <sup>[3]</sup>. The exact time of cultivation of garlic is unknown, but it is considered one of the oldest vegetable crops in the world. Around 2600 BC The Sumerians on clay tablets compiled a list of dietary products, which included garlic.

Scientists believe that initially the interest of ancient civilizations in this vegetable was caused by its almost “magical” abilities to save neighboring crops from diseases and pests. For these properties, he was deified and worshiped. For example, in Egypt they believed that garlic is indispensable for maintaining the physical strength of a person. So, according to legend, the pharaoh ordered to provide each slave involved in the construction of the pyramids daily with a portion of this vegetable. Garlic is also mentioned many times in the famous ancient Egyptian medical treatise known as the Ebers Papyrus .

The ancient Greeks also appreciated it. Hippocrates used garlic with honey to treat lung disease. In addition, it was believed that this vegetable is a good means for increasing courage, as the famous playwright Aristophanes mentions in his comedies. In ancient Rome, garlic became famous for its ability to fight parasites in the intestines, and later legionaries began to wear it on their chests as a talisman. This vegetable, most likely, was brought to Russia in the 9th century from Byzantium.

In the Middle Ages, garlic occupied an unshakable position in the cuisine of the East and became an indispensable ingredient in the preparation of many local traditional dishes. It was also considered a good antibacterial agent and was recommended to seize muddy water with it. At the same time in Europe, garlic was considered a medicinal plant, and its healing properties became the basis for the emergence of many mysterious legends about the fight against evil spirits. Many doctors of those times considered the vegetable an effective remedy against the plague.

In the middle of the 19th century, the famous French chemist Louis Pasteur gave a powerful impetus to scientific research by first describing the antiseptic properties of garlic <sup>[7]</sup>. Leaving the cloves on a plate of bacteria, he soon discovered that there were no living microbes around the lobules. In this regard, garlic or garlic solution (which was called "Russian penicillin") was actively used in the fight against infections during the First World War.

## Varieties

Unlike many other vegetables, garlic does not have a wide variety of varieties. Basically, in our area you can find heads consisting of white cloves, covered with light (sometimes with purple stripes) husks. Without being an avid gardener, many varieties are almost impossible to distinguish in appearance or taste characteristics. However, there are several varieties that stand out from the rest.

Firstly, we are talking about **french pink garlic** , which is also called **creole** . It is distinguished by a rich bright purple color of the head <sup>[4]</sup> . Secondly, **elephant garlic** can also be classified as an unusual variety . In fact, this is one of the forms of *onion Grape* , but in smell and characteristic division into cloves, it is similar to garlic. He was nicknamed elephant because for the most part the bulbs of this vegetable reach very large sizes (one clove can weigh 50-80 g, and the whole head can weigh up to 450 g). A characteristic difference of elephant garlic is not too sharp aroma and relatively mild taste.

## Selection and storage

The choice of garlic is a simple matter. The main thing is that the heads are dry, dense and without external damage. It is also important that the vegetable does not have a green tuft, because after germination it gradually loses a number of its useful properties. When choosing, you can also pay



attention to the size of the garlic: it is popularly believed that larger cloves are usually more caustic and sharp, although this fact has not been scientifically proven.

As for storage, it is quite possible to put garlic in the refrigerator for a period of no longer than a month. However, if you plan to stock up on a large amount of vegetables for a long time, then the option with a refrigerator is no longer suitable. The humidity there will cause the garlic to gradually begin to turn black and moldy. Also, the vegetable does not like direct sunlight, in which it dries quickly.

Optimal storage conditions are a dry, dark place with a temperature range of 5 to 18°C. Of the containers, a box or box with holes for ventilation is perfect. If after use you have a few brushed cloves left, you can put them in the refrigerator. To avoid the spread of a strong smell, it is better to store them in a sealed container.

### **Growing features**

Garlic is an unpretentious plant that can be planted both in autumn (winter varieties) and in spring (spring varieties). It should be borne in mind that the plant requires abundant watering in the first few weeks after planting and, conversely, prefers dryness during the ripening of the bulbs.

As for the appearance of garlic, its leaves are narrow, pointed towards the top, reach a height of 30-100 cm. They grow one from the other in a spiral, thus forming a false stem. Winter varieties produce an arrow-peduncle, which can reach 150 cm in length. Before flowering, its edge, crowned with an umbrella inflorescence, twists in a spiral. If you do not plan to collect aerial bulbs (bulbs) for planting material, then the arrows should be removed when they reach about 20 cm above the level of the stem. This procedure increases the yield.

Spring varieties, in turn, do not shoot and multiply due to cloves. The absence of a peduncle explains why garlic of spring varieties does not have a stem in the center, and the cloves are arranged in several rows. Such garlic is usually stored longer, but at the same time brings a smaller yield.

It should be noted that the soil prepared for garlic should be rich in phosphorus, potassium and nitrogen. To ensure the normal development of the root system, it needs to be loosened. Planting depth usually varies from 6 to 12 cm depending on the size of the cloves (the larger they are, the deeper they need to be planted). To avoid the formation of a crust, the earth can be mulched with humus. Harvested, as a rule, in early August (winter varieties) and early September (spring varieties).

### **Diseases and pests**

The diseases that garlic is susceptible to may differ depending on the climatic conditions where it grows. The most common attack is bacterial rot, which can affect both the plant itself during the growing season and the harvested crop during storage. With such a disease, brown ulcers appear on the teeth, and a putrid odor may appear. Gradually, there is a feeling that the slices were frozen.

In the southern regions, where the winter is not too severe, the fungal disease fusarium is a danger. It provokes yellowing of the leaves and leads to the appearance of a pinkish coating of spores. Due to the infection of the bulb, the roots die off. If there are diseased heads in the harvested crop, then they are covered with pink mycelium for a short time and rot.

Among insects, various types of onion flies cause great harm to garlic. Their larvae feed on the fruit, damaging it, which starts the process of head rotting and leads to the drying of the leaves. Parasites

such as onion stem nematodes, thrips, as well as four-legged garlic and root mites are also dangerous for garlic.

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## Garlic - useful properties, composition and contraindications

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