



## **Echinacea - benefits for women and men, contraindications and rules for use**

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**Abstract.** The article discusses the main properties of echinacea and its impact 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 echinacea is considered in various types of medicine and the effectiveness of its use in various diseases. Potentially adverse effects of echinacea analyzed separately on the human body under certain medical conditions and diseases.

*Key words:* echinacea, benefits, harms, beneficial properties, contraindications

Our ancestors used echinacea to treat scarlet fever, malaria, diphtheria, and toothache. The popularity of the plant began to fade in the 20th century after the advent of antibiotics, and now it has again been crushed thanks to the trend towards organic nutrition. Today, people use it to strengthen the immune system, reduce sore throat, against the common cold and cough. However, scientists have proven that the extract helps not only with colds and flu.

The calorie content of echinacea is almost zero, but sweetened syrups can contain more than 200 kcal per 100 g. The plant comes in three types - narrow-leaved, pale and purple. All varieties have a common name but different activity profiles. Their therapeutic effect is provided by polysaccharides, glycoproteins, alkamides , flavonoids and other substances. More oils are concentrated in the roots, and more beneficial compounds in the above-ground parts for activating the immune system.

### **Top 7 Health Benefits of Echinacea for Women and Men**

#### **1. Boosts Immunity and Fights Colds**

The polysaccharides, glycoproteins and other chemicals that make up natural raw materials help the body produce white blood cells to fight upper respiratory tract infections. They reduce the risk of a cold by 50%, reduce its duration by an average of 1.5 days. They may also be effective in combating bronchitis, an acute productive cough without chronic lung disease. <sup>[12]</sup>

## **2. Lowers the degree of anxiety**

Alcamides, rosmarinic and caffeic acids help with anxiety, depression, social phobias, attention deficit hyperactivity disorder (ADHD). In one study, scientists found that plant components relieve irritability, feelings of fear and at the same time do not reduce the level of activity, do not cause drowsiness. <sup>[3, 4]</sup>

## **3. Reduces Inflammation**

Stress, toxins, poor sleep contribute to the development of long-term inflammation. But regular use of echinacea can reverse the dangerous process, boost the immune response, and lower inflammatory markers. With rheumatoid arthritis, inflammation of the eyes and many other problems, it is enough to take herbal tea. Positive effects are reported by people who are not helped by non-steroidal anti-inflammatory drugs. <sup>[5, 6]</sup>

## **4. Normalizes blood sugar levels**

Echinacea purpurea extract inhibits carbohydrate digestion enzymes, so less glucose enters the bloodstream. At the same time, the PPAR receptor is activated, making the cells more sensitive to insulin. A similar process in the body is triggered by drugs for diabetes. <sup>[7, 8]</sup>

## **5. Fights cancer**

The medicinal value of Echinacea's phytochemicals has enthralled scientists. Rare components have the potential to fight tumors - they cause controlled death of cancer cells (apoptosis) without side effects. Supplements may be effective in combination with traditional therapies, but require further research into drug compatibility. <sup>[9, 10]</sup>

## **6. Pain relief**

Echinacea helps with sore mouth, throat and urinary tract infections. One of the studies proved that during its administration, the secretion of cytokines increases. The latter reduce inflammation and muscle soreness. <sup>[11, 12]</sup>

## **7. Helps with digestion**

Echinacea in the form of tea acts as a mild laxative and stimulates the bowels and helps in the treatment of constipation. To do this, it is enough to drink one cup of a healing drink a day. But keep in mind that drinking 2-3 cups of herbal tea per day can lead to diarrhea. The reasons for this effect are yet to be elucidated.

## **Harm of Echinacea - contraindications and adverse reactions**

Supplements rarely cause negative effects. They are mostly faced by people with asthma, allergies to chamomile, ragweed, chrysanthemum, marigolds. The risk of drug interactions is low, but echinacea does affect some well-known drugs:

- enhances the effect of the antifungal drug econazole ;
- reduces the effectiveness of immunosuppressants, which are used to treat cancer, after organ transplantation;
- increases the time of splitting and excretion of caffeine.

Echinacea should not be taken by people with multiple sclerosis, tuberculosis, leukemia, diabetes, connective tissue and liver disease, any autoimmune disorder, HIV and AIDS. How safe the supplement is during pregnancy and breastfeeding remains to be seen, so it is not recommended for women during these periods.

### **How many days do you need to drink echinacea to get the effect?**

To stimulate the immune system for colds, flu, infections of the upper respiratory tract or bladder, the remedy is taken three times a day for at least 10 days. A prophylactic autumn course to maintain immunity may be longer, but taking it on an ongoing basis is not recommended - addiction develops and after the supplement is canceled, a decrease in immunity is observed.

When taking nutritionists, nutritionists are advised to follow the manufacturer's instructions. Suggested daily doses depend on the form:

- dry extract in powder form - 300-500 mg;
- liquid extract in the form of a tincture - 2.5-10 ml: 20-40 drops for adults and 10-20 drops for children.

To activate the brain and increase muscle activity, you can start a course with Eleutherococcus or Rhodiola rosea at a dosage of 5-10 drops in the morning and afternoon, gradually increasing the dose over 2 weeks. Then proceed to taking the immunostimulant in tincture or capsules.

### **How to take echinacea before or after food?**

The herbal remedy is available in the form of alcohol tinctures, tablets, capsules. Can be combined with other immunostimulating herbs, vitamins, minerals. Most dietary supplements should not be taken on an empty stomach - it is better to drink liquid echinacea 30 minutes before. before meals or one hour after, drinking plenty of water. If you're planning to buy a supplement, choose a reputable brand - a study by an independent company found that only 4 out of 11 brands had ingredients that were as advertised on the label.

### **Expert comment**

#### **Tatyana Eliseeva, nutritionist, nutritionist**

In Germany, where herbs are regulated by the state, echinacea root is approved for treating flu-like illnesses, and its aerial parts are approved for colds, slow-healing wounds, upper respiratory and urinary tract infections. Therefore, there is no doubt that a natural remedy can provide your body with additional support during the cold and flu season. Proper dosage and caution are critical in getting all the benefits.

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*Received 15.10.2021*

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