

Herb of the Week: Garlic

Scientific Name: *Allium sativum*

Family: Amaryllidaceae

Used For:

May be used to reduce blood lipid levels to prevent development or worsening of atherosclerotic disease.<sup>1</sup> Garlic may be able to help reduce total blood cholesterol levels by up to 10 percent.<sup>2</sup> Garlic may help reduce blood pressure by helping to release nitric oxide which dilates vasculature.<sup>2</sup> Garlic increases blood flow in vasculature due to its anticoagulant properties.<sup>1</sup> Some evidence suggests garlic may be used for cough and other symptoms caused by colds.<sup>1</sup> Garlic has antimicrobial activity and can be administered internally or topically to deliver this effect to the affected area of infection.<sup>2</sup> Garlic may also be used to fight fungal infections, viruses and other microbes.<sup>2</sup> Some research has shown that garlic consumption through ones diet can help decrease the risk of certain cancers.<sup>2</sup> Can also be used for ear infections and can generally support the body's immune defense.<sup>3</sup> Garlic is especially good for managing respiratory infections because after consumption, its main pathway for exiting the body is through the lungs.<sup>3</sup>

Dosing and Administration:

Administered internally via consumption of garlic bulb, infusion, fluidextract or tincture.<sup>1</sup>

Consumption: 4 grams per day of garlic bulb<sup>1</sup>

Infusion: 4 grams in 150 ml of water<sup>1</sup>

Fluidextract: 4 grams in 4 ml of fluid<sup>1</sup>

Tincture: 4 grams in 20 ml<sup>1</sup>

Can be administered via supplements. Odorless supplements do not contain many of the active compounds that are responsible for garlics therapeutic effects.<sup>2</sup>

Garlic can be consumed in the diet through food, made into tea, infused into oil, and applied topically when mixed with water or vinegar.<sup>3</sup>

Safety:

Contraindications include those with an allergy to garlic.<sup>1</sup> Should avoid consuming large amounts of garlic before surgical procedures due to its effect in increasing bleeding time and delaying clotting.<sup>1</sup> Should not be used by mothers who are lactating.<sup>1</sup> Raw garlic when ingested internally or applied externally to the skin may cause damage by burning the epithelium. Mixing garlic in oil or pickling it can help reduce the risk for causing epithelial damage while still preserving garlic's therapeutic effects.<sup>3</sup>

Mechanism of Action:

When garlic is mechanically or metabolically broken down, an enzyme called allinase is released along with certain amino acids, sulfur compounds and other minerals which are responsible for most of garlics therapeutic actions within the body.<sup>2</sup>

#### Actions:

Antimicrobial, antiseptic, antiviral, helps reduce blood lipid levels, helps reduce blood pressure, helps relieve cramping from spasming, stimulates sweating, expectorant and is an emmenagogue.<sup>2</sup> Garlic is also anti-inflammatory, stimulates the liver, and aromatic.<sup>3</sup>

#### Adverse Reactions:

May cause stomach upset, heartburn, allergic reactions and release odor from skin or breath.<sup>1</sup> Raw garlic may cause damage or irritation to the gut or skin.<sup>3</sup>

#### Interactions:

No direct drug interactions.<sup>1</sup> Caution should be taken in patients taking garlic supplements or consuming large amounts of garlic when also taking anticoagulants due to increased risk of bleeding.<sup>1</sup>

#### My experience:

I purchased two garlic heads from my local farmers market to use for experimentation this week. I really love incorporating garlic in my food so the first thing I did was make fresh garlic bread. I extracted and mashed three garlic cloves to spread on a piece of sourdough bread with a smidge of butter and then toasted it. I really enjoyed eating garlic in this way but realize it may not be the healthiest way to consume it. I also tried to incorporate garlic in my olive oil salad dressing. I mashed a few cloves of garlic and added it into a olive oil and balsamic vinegar mix along with oregano, basal, red pepper flakes and a little bit of salt. I let this infuse overnight and then used it in my salad this week. I found it to be pretty good but would like to continue to experiment with different ingredients or let it infuse for longer to get a stronger flavor. This week I experimented with two different ways of making tea. The first way I tried to make tea was by mashing one garlic clove and placing it in a mesh tea ball that I then let infuse in water for 20 minutes. I then added honey and lemon juice to the tea. I had to add a substantial amount of honey to my tea preparation to make it palatable for me. I definitely prefer sweeter tea preparations but overall the taste was good. The second method I used to make tea was by purchasing premade tea bags that contained garlic. I put hot water into a mug and then let the tea bag sit for 20 minutes. I preferred this method of making tea because garlic was not the main ingredient so it had a milder taste which was more palatable.

#### References

1. <https://www.herbalgram.org/resources/expanded-commission-e/garlic/>
2. <https://www.herbrally.com/monographs/garlic>
3. Herbal Medicine for Beginners: Your Guide to Healing Common Ailments with 35 Medicinal Herbs by Katja Swift and Ryn Midura, page 80-81