



# **KYOLIC GARLIC**

Helps to support heart, liver and immune function.

# Nutritional Information One Tablet provides:

Aged Garlic Extract (standardised with S-Allyl Cysteine)

Available in 100 mg, 600 mg or 1000 mg strengths.













#### SUMMARY

- Produced using organically grown cold-aged garlic.
- Aged garlic is a source of antioxidants including S-allylmercaptocysteine and S-allylcysteine.
- Supports the health of the heart, liver and immune system.
- No garlic taste.
- Standardised.

#### **DESCRIPTION**

Aged garlic has been shown in many research papers to be more potent than non-aged garlic. Aged garlic is a therapeutic agent for the health of the heart, the liver and immune system.

Kyolic garlic is organically grown and cold-aged for 20 months. This process increases the hydrophilic sulphur containing compounds; S-allylmercaptocysteine (SAMC), S-allylcysteine (SAC) and S-mythyl cysteine. Kyolic garlic also contains hydrophobic compounds such as diallyl sulphide (DAS), diallyl disulphide (DADS), diallyl trisulphide, allyl methyl trisulphide, dithiins, and ajoene.

These substances decreases low density lipoprotein (LDL) cholesterol, improves blood circulation, supports healthy blood pressure levels and reduces platelet aggregation and adhesion to blood vessel walls.

Aged garlic contains a high level of antioxidants that enhances immune function and reduces the risk of infections at the same time as protecting cells from oxidative damage caused by free radicals.

S-allymercaptocysteine enhances the activity of the liver enzymes and assists in detoxification pathways.

Unlike raw garlic, Kyolic garlic does not contain allicin, making it gentle on the stomach and suitable for most people.

#### **HEART HEALTH**

The active ingredients in aged garlic, S-allylmercaptocysteine (SAMC) and S-allylcysteine (SAC), are sulphur containing compounds and a derivative of the amino acid L cysteine. SAMC and SAC provides many benefits to the body. The concentration of these compounds in garlic increases over time, providing the benefits that aged garlic has over fresh garlic. SAMC works by scavenging reactive oxygen species (ROS), a potent oxidant in the body. It also enhances antioxidants in the cells such as superoxide dismutase (SOD) and glutathione<sup>1</sup>.

Aged garlic targets some of the main causes of cardiovascular disease and can be used as a preventive, as well as a therapeutic agent in high risk individuals.

**Atherosclerosis:** Due to the potent antioxidants in aged garlic, it has the ability to inhibit oxidative changes of cholesterol, and therefore protect the endothelial cells of the blood vessels from becoming damaged and oxidized, a major factor in the development of atherosclerosis<sup>1</sup>.

**Cholesterol:** Studies show that aged garlic reduces serum cholesterol significantly when compared to a placebo<sup>1,2</sup>. High density lipoprotein (HDL) is increased, and LDL decreases by up to 10% in hypercholesteraemic men<sup>3</sup>. It is the combination of compounds in aged garlic, including both hydrophilic and hydrophobic agents that inhibit the synthesis of LDL cholesterol. Studies looking at individual compounds on cholesterol have not yielded the results that aged garlic extract consistently shows<sup>4</sup>.

**High blood pressure and circulation:** Studies show that aged garlic can reduce systolic and diastolic blood pressure 1,2, reducing the strain on the heart. High blood pressure significantly impacts cardiovascular health if left untreated.

Aged garlic stimulates glutathione production which counteracts the damage to the blood vessels caused by homocysteine in patients with hyperhomocysteinemia. Aged garlic minimises oxidative stress and stimulates nitric oxide pathways, relaxing the blood vessel walls, decreasing blood pressure<sup>5,6</sup> and improving circulation in conditions such as Raynaud's disease and chilblains.

**Blood health:** Aged garlic provides antithrombic activity<sup>1</sup>. It decreases the adhesion of platelets to the blood vessel walls and reduces platelet aggregation, both important factors in reducing the risk of developing blood clots.

### LIVER HEALTH

**Oxidation:** Aged garlic has the ability to protect the liver against oxidation induced diseases, damage from ageing, radiation and chemical exposure and long term toxic damage<sup>1</sup>. S-allylmercaptocysteine (SAMC) and S-allylcysteine (SAC) significantly reduced the rise in liver enzymes (a marker of liver stress) and liver necrosis (death of liver cells in acute hepatitis)<sup>7</sup>.

**Non-alcoholic fatty liver disease:** Aged garlic may also be beneficial in the treatment of non-alcoholic fatty liver disease (NAFLD). A study reports the decrease in fat accumulation, collagen formation and free fatty acids with the use of aged garlic. SAMC decreases the creation of fat in the liver (lipogenesis), and corrected fat breakdown markers. SAMC also reduced oxidative stress in the liver, a prominent marker of NAFLD<sup>8</sup>.

**Detoxification:** The sulphur compounds increase the body's production of glutathione, a potent stimulator of detoxification and aids in the removal of heavy metals, environmental and indigenous toxins. The sulphur compounds in aged garlic also help to protect blood cells from damage induced by heavy metals. This provides a huge benefit to anyone releasing stored heavy metals back into the bloodstream for detoxification. Aged garlic extract has been shown to act as a hepatoprotective agent against cisplatin, a chemotherapy agent.

#### **IMMUNE HEALTH**

**Inflammation:** Aged garlic decreases the expression of (NF)-kB, an inflammatory signal protein within the body¹. Chronic inflammation is the overreaction of the body's immune proteins such as cytokines. This overreaction can eventually decrease our resistance to infection.

**Immune modulation:** The potent antioxidants in aged garlic stimulate appropriate immunological action<sup>1</sup>, by enhancing the number of Natural Killer cells<sup>10</sup>. Aged garlic is also an immune modulator<sup>11</sup>, an important factor in immune system health. One study observed a much lower frequency of catching colds and a quicker recovery with the consumption of aged garlic extract.<sup>12</sup>. Another study has found that aged garlic prevents the decrease in immune system activity imposed by psychological stress. Psychological stress decreases the number of Natural Killer cells in the body. Aged garlic may be a therapeutic agent to prevent this from happening<sup>13</sup>.

**Antimicrobial:** Aged garlic extract has been shown to heal mucosal tissue in the gut, and provide anti-microbial protection and regulation of the microbiome <sup>12</sup>. Good gut health and a healthy microbiome is the first step in ensuring effective immune functioning. Many T and B helper cells are stored in the gut associated lymphoid tissue where they interact directly with the gut microbiome.

#### **HOW SHOULD KYOLIC GARLIC BE TAKEN?**

Take one or two tablets daily with food. Swallow with water.

## ARE THERE ANY PRECAUTIONS BEFORE OR WHILE TAKING KYOLIC GARLIC?

Please consult your doctor before taking Kyolic garlic if you are taking any medication, being treated for any health conditions or awaiting any surgical procedures.

#### **FEATURES**

- Produced from organically grown cold aged garlic cloves.
- Contains water and oil soluble compounds.
- Odourless and gentle on the stomach.
- Unique garlic form supported by extensive clinical studies.
- High strength.

# **HEALTH NEEDS**











DETOX AND CELL PROTECTION

AND WELLBEING

**GUT AND DIGESTION** 

**HEART &** CIRCULATION

# **SCIENTIFIC REFERENCES**

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