

# The Moss Nutrition Digest

## Timely Tidbits to Support Your Practice

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### Garlic Benefits Include Liver Health

People take garlic supplements for various reasons. Chief among these is helping to fight colds and flu, helping to support healthy blood lipids and blood pressure, helping to manage blood glucose levels, and helping to promote healthy gastrointestinal microbial balance.

Garlic also is known to help support healthy liver function, which is associated with improved metabolic and vascular health, improved detoxification and digestion, and better outcomes in critical care.

The numerous health benefits attributed to garlic are largely due to antioxidant and anti-inflammatory activity instigated by naturally-occurring organosulfur compounds. These include aliin, allicin, S-allylcysteine, di-allyl-disulfide and others. Garlic and its native compounds have been shown to exert hepatoprotective effects against non-alcoholic fatty liver disease (NAFLD), fibrotic liver disorders such as cirrhosis, and drug- and alcohol-induced hepatic injury.

Several forms of garlic are available for use—from fresh garlic cloves and dry powdered garlic to aged garlic extracts and high allicin concentrates. A lesser known but highly potent form of this ancient medicinal food is black fermented garlic (BFG). BFG is produced from fresh garlic using a combination of microbial fermentation, chemical reactions, and heat, resulting in a mellower flavor and transformed nutritive and functional properties that feature enhanced antioxidant profiles. Notably, BFG is *six times higher* than fresh garlic in S-allylcysteine (SAC), a more stable bioactive antioxidant than the powerful but volatile allicinic compounds responsible for the stinging bite of fresh raw garlic.

Black fermented garlic is gaining increased clinical attention for its potential benefits to human health, including cardiovascular and liver health. A recent animal study confirmed the ability of BFG to protect against acute hepatic injury induced by exposure to carbon tetrachloride (CCl<sub>4</sub>). In other research, SAC was shown to inhibit hepatocarcinogenesis induced by nitrogen containing N-nitrosodiethylamine. Previous research on SAC in hypertensive patients also yielded promising results, suggesting it decreased a suite of cardiovascular risk factors.

**Garlic Select™** from Moss Nutrition offers broad spectrum benefits with a unique combination of standardized black fermented garlic extract and allicin-containing concentrated fresh garlic extract. Each two capsule serving provides 1.2 mg of S-allylcysteine, an amount researched to help support healthy blood pressure in human clinical trials.

### REFERENCES

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- Ried K, et al. The effect of aged garlic on blood pressure and other cardiovascular risk factors in uncontrolled hypertensives: the AGE at Heart trial. *Integr Blood Press Control*. 2016 Jan 27;9:9-21