



Black Pepper: A Traditional Spice with Supportive Roles in Digestive Wellness

Black pepper (*Piper nigrum*) is one of the world's most widely used culinary spices. Its primary naturally occurring active compound, piperine, gives black pepper its characteristic flavor and has been studied for its role in digestion, nutrient absorption, antioxidant activity, and general wellness.

Black pepper powder is included in ActivPower formulations including **ZEUS™**, **COGNEX™**, and **ATLAS™** as part of a comprehensive nutritional approach to supporting digestive wellness and everyday vitality in humans and companion animals.

What Makes Black Pepper Nutritionally Interesting?

Black pepper contains naturally occurring plant compounds including piperine, essential oils, alkaloids, and polyphenols. These compounds have been studied for their potential

role in supporting normal digestive processes and helping the body make better use of certain nutrients.

Black pepper should be viewed as a supportive dietary ingredient, not as a treatment for any medical condition.

Black Pepper and Digestive Wellness

Digestive wellness depends on normal stomach, pancreatic, liver, intestinal, and microbiome function. Research suggests that black pepper and piperine may support digestion in several ways.

Support for Normal Digestive Function

Research suggests that piperine, the principal bioactive compound in black pepper, may support digestive function by influencing digestive enzyme activity and nutrient utilization. Experimental studies have reported that piperine may stimulate pancreatic digestive enzymes and support digestive efficiency, helping explain why black pepper has historically been valued as a digestive spice.

While much of this research has been conducted in laboratory and animal models, the findings support the traditional use of black pepper as part of a balanced dietary approach to digestive wellness.

Nutrient Bioavailability Support

One of the most extensively studied properties of piperine is its ability to enhance the bioavailability of certain dietary compounds.

A landmark human study demonstrated that piperine significantly increased blood levels of curcumin when the two ingredients were consumed together. This observation has led researchers to investigate piperine's potential role in supporting nutrient absorption and utilization.

Importantly, enhanced bioavailability does not imply treatment of any disease or guarantee enhanced effects from every nutrient. Rather, it provides a scientific rationale for including black pepper in formulations where efficient nutrient utilization is a consideration.

Antioxidant and Cellular Wellness Support

Black pepper contains naturally occurring antioxidant compounds that may help support normal cellular function and overall wellness.

Normal metabolism produces oxidative stress as part of everyday biological processes. Antioxidants help support the body's natural defenses that maintain healthy cellular function. Researchers continue to investigate how black pepper's polyphenols and other plant compounds contribute to these protective mechanisms.

Emerging Research on the Gut Microbiome

Scientists have increasingly focused on the relationship between dietary plant compounds and the gut microbiome.

Emerging research suggests that piperine may interact with the gut environment and microbial communities, potentially influencing aspects of digestive wellness. While this field remains in its early stages, researchers continue to explore how black pepper may support a healthy gut ecosystem as part of a balanced diet.

Because this area of research is still evolving, responsible communication should emphasize that additional human clinical studies are needed before definitive conclusions can be drawn.

Supporting Overall Wellness

Beyond digestive health, black pepper has attracted scientific interest because of its potential role in supporting general wellness.

Researchers have investigated black pepper's antioxidant activity, its interactions with cellular signaling pathways, and its potential role in supporting healthy physiological function. These findings contribute to the growing interest in black pepper as a functional nutritional ingredient.

Black Pepper in ActivPower Products

ActivPower includes black pepper powder in selected formulations because of its long history of culinary use and scientific interest in digestion, nutrient utilization, and wellness support.

Human Wellness Products

ZEUS™ and **COGNEX™** include black pepper powder as part of broader nutritional formulations designed to support:

- Digestive wellness
- Nutrient utilization

- Antioxidant support
- Healthy cellular function
- General vitality and wellness

Companion Animal Wellness

ATLAS™ includes black pepper powder as part of a carefully formulated nutritional blend intended to support normal wellness and vitality in dogs when used as directed.

As with any nutritional supplement, pet owners should consult their veterinarian before introducing supplementation, particularly for animals with existing health conditions or those receiving medications.

Safety and Responsible Use

Black pepper has a long history of safe culinary use throughout the world.

As with all nutritional ingredients, quality, sourcing, dosage, and formulation are important considerations. Concentrated piperine may influence the absorption or metabolism of certain medications and nutrients.

Individuals who are pregnant, nursing, taking prescription medications, or managing medical conditions should consult a qualified healthcare professional before using supplements containing black pepper or piperine.

Key Takeaway

Black pepper is a traditional culinary spice with growing scientific interest for digestive wellness, nutrient bioavailability, antioxidant support, and general vitality.

Current evidence suggests that black pepper's naturally occurring compounds may support digestive function, nutrient utilization, and healthy cellular processes as part of a balanced nutritional program. While many findings are promising, researchers continue to investigate the full scope of black pepper's physiological effects.

ActivPower includes black pepper powder in ZEUS™, COGNEX™, and ATLAS™ as part of a comprehensive nutritional strategy designed to support everyday wellness in humans and companion animals.

Scientific References

1. Srinivasan K. *Black Pepper and Its Pungent Principle-Piperine: A Review of Diverse Physiological Effects*. Critical Reviews in Food Science and Nutrition. 2007;47(8):735-748.
2. Shoba G, Joy D, Joseph T, Majeed M, Rajendran R, Srinivas PS. *Influence of Piperine on the Pharmacokinetics of Curcumin in Animals and Human Volunteers*. Planta Medica. 1998;64(4):353-356.
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4. Ahmad N, Fazal H, Abbasi BH, Farooq S, Ali M, Khan MA. *Phytochemistry and Therapeutic Potential of Black Pepper (Piper nigrum)*. Clinical Phytoscience. 2021;7:52.
5. Nutrition Reviews Supplement. *Piperine and Nutrient Bioavailability: Current Scientific Perspectives*. 2025;84(Suppl 1):81-95.
6. Emerging literature examining piperine-gut microbiome interactions and digestive physiology, including recent reviews of dietary phytochemicals and gastrointestinal wellness.

Educational Disclaimer

Educational Information Only

The information presented in this article is provided solely for educational and informational purposes and reflects selected scientific literature concerning black pepper (*Piper nigrum*) and its naturally occurring constituents when consumed by humans or animals.

The statements contained herein have not been evaluated by the U.S. Food and Drug Administration (FDA), the Center for Veterinary Medicine (CVM), or other regulatory authorities. ActivPower products are not intended to diagnose, treat, cure, mitigate, or prevent any disease, disorder, infection, gastrointestinal condition, or medical condition in humans or animals.

References to scientific studies are provided for educational purposes only and do not imply that identical results will occur in every individual or animal. Scientific understanding

of black pepper and piperine continues to evolve, and some findings remain preliminary or require further clinical validation.

Consumers should consult a qualified healthcare professional or veterinarian before using any dietary or nutritional supplement.

This article is intended solely as an educational summary of current scientific literature regarding black pepper consumption in humans and animals. No other claim is stated or implied.