

Diatomaceous Earth: Understanding Its Role in Digestive Wellness and Nutritional Support

Diatomaceous earth (DE) is a naturally occurring mineral-rich powder derived from the fossilized remains of microscopic aquatic organisms called diatoms. Food-grade diatomaceous earth consists primarily of amorphous silica, a naturally occurring form of silicon that has been used for decades in food, agricultural, and industrial applications.

Diatomaceous earth is included in select ActivPower formulations, including **ZEUS™**, **COGNEX™**, **HuBiome Plus™**, **LactImmune™**, and **ATLAS™**, as part of a comprehensive approach to nutritional wellness and digestive support.

What Is Food-Grade Diatomaceous Earth?

Food-grade diatomaceous earth is composed primarily of amorphous silicon dioxide (silica), typically accounting for 80–90% of its composition. It differs significantly from industrial or filter-grade forms of diatomaceous earth, which are not intended for consumption.

Food-grade DE has been approved for certain food-related applications and is commonly used as an anti-caking agent and processing aid in food production. Its primary nutritional interest stems from its silica content, which may contribute to overall mineral intake.

Diatomaceous Earth and Digestive Wellness

Interest in diatomaceous earth as a digestive wellness ingredient has increased in recent years. Some researchers have suggested that its unique porous structure and mineral composition may interact with the digestive environment in ways that support normal gastrointestinal function.

However, it is important to recognize that human clinical research remains limited, and many commonly promoted health claims surrounding diatomaceous earth have not been conclusively established in well-controlled studies.

Current scientific discussion generally focuses on three areas:

1. Physical Characteristics Within the Digestive Tract

Food-grade diatomaceous earth is largely inert and is not significantly digested by the body. Its highly porous structure has led researchers to investigate how it may interact with substances within the gastrointestinal tract.

While laboratory studies demonstrate adsorptive properties, scientists caution that these observations do not automatically translate into measurable health benefits in humans. Additional research is needed to better understand these effects under real-world dietary conditions.

2. Source of Dietary Silicon

Silicon is a trace mineral naturally present in many foods and is involved in normal connective tissue and structural processes throughout the body.

Emerging research suggests that some forms of silica may become hydrated in the digestive tract and contribute to the body's silicon pool. Researchers continue to investigate the extent to which food-grade diatomaceous earth may serve as a source of bioavailable silicon.

3. Support for Overall Nutritional Wellness

Some animal and laboratory studies have explored whether dietary silica may influence aspects of metabolic health, intestinal barrier function, and nutrient utilization. While these findings are scientifically interesting, they remain preliminary and should not be interpreted as proof of specific health outcomes in humans or companion animals.

Current State of the Science

The scientific literature on food-grade diatomaceous earth continues to evolve.

Several published reviews note growing consumer interest and identify potential areas for future research. At the same time, researchers consistently emphasize that many commonly circulated claims regarding digestive cleansing, detoxification, or other health outcomes have not yet been confirmed through robust clinical trials.

As a result, responsible discussion of diatomaceous earth should acknowledge both its long history of use and the need for additional human and veterinary research.

Diatomaceous Earth in ActivPower Products

ActivPower includes food-grade diatomaceous earth as one component of broader nutritional formulations designed to support overall wellness.

Human Wellness Products

ZEUS™, COGNEX™, HuBiome Plus™, and LactImmune™ contain food-grade diatomaceous earth as part of carefully formulated nutritional blends intended to complement healthy lifestyle practices and digestive wellness strategies.

Companion Animal Wellness

ATLAS™ includes food-grade diatomaceous earth within a comprehensive nutritional formulation designed to support normal vitality and wellness in dogs when used as directed.

As with any nutritional supplement, pet owners should consult their veterinarian regarding the suitability of supplementation for their individual animal.

Safety Considerations

Only food-grade diatomaceous earth should be considered for nutritional use.

Industrial-grade and pool-filter grades may contain substantially higher levels of crystalline silica and are not intended for consumption. Food-grade products should always be sourced from reputable manufacturers that maintain appropriate quality-control standards.

Individuals with specific medical conditions, those taking medications, pregnant or nursing women, and pet owners with health concerns should consult an appropriate healthcare professional or veterinarian before beginning supplementation.

Key Takeaway

Food-grade diatomaceous earth is a naturally occurring source of amorphous silica that has attracted growing scientific interest in digestive wellness and nutritional support. While its mineral composition and physical properties continue to be studied, current evidence suggests that many proposed health benefits require further clinical investigation.

ActivPower includes food-grade diatomaceous earth as part of selected wellness formulations because of its long history of use, silica content, and emerging scientific interest as a supportive nutritional ingredient within a balanced wellness program.

Selected References

1. Garcimartín A, et al. *Diatomaceous Earth Supplementation as a Bioavailable Silicon Source and Modulator of Intestinal and Hepatic Lipid Metabolism*. *Nutrients*. 2025.
2. European Food Safety Authority (EFSA). Scientific opinions regarding silicon dioxide (E551) as a food additive and food processing aid. Referenced in *Nutrients* review.
3. Mwangi J. *Usage of Human Diatomaceous Earth*. *Annals of Life Sciences and Agriculture*. 2023.

4. Reviews evaluating digestive-health claims and evidence limitations for food-grade diatomaceous earth.
 5. U.S. and international references describing food-grade diatomaceous earth composition and safety characteristics.
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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 food-grade diatomaceous earth and its potential role in nutritional wellness, digestive health, and dietary silica intake in humans and 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, infection, gastrointestinal disorder, or medical condition in humans or animals.

Scientific research regarding food-grade diatomaceous earth is ongoing, and many proposed benefits remain under investigation. References to published studies are provided for educational purposes only and do not imply that identical results will occur in every individual or animal. Consumers should consult with a qualified healthcare professional or veterinarian before using any dietary or nutritional supplement.

No other claim is stated or implied.