ActivPower CANIS

CANINE KNOWLEDGE BASE • INGREDIENT SCIENCE

Sea Cucumber for Canine Joint & Connective-Tissue Wellness

A marine source of collagen, glycosaminoglycans, and sulfated polysaccharides studied to support mobility and connective tissue in dogs.

ActivPower ATLAS® for Dogs | Holothurian Marine | Marine Collagen · GAGs

What Is Sea Cucumber?

Sea cucumbers are marine invertebrates (class Holothuroidea) consumed for centuries as both food and a traditional wellness ingredient. Sea cucumber powders contain a unique combination of naturally occurring compounds — including marine collagen, glycosaminoglycans (GAGs), sulfated polysaccharides, fucosylated chondroitin sulfate, peptides, minerals, and omega-rich lipids. It is included in **ActivPower ATLAS® for dogs** to support mobility, connective-tissue wellness, and active life.

A Marine Source of Connective-Tissue Nutrients

Sea cucumber’s marine collagen, sulfated GAGs, and chondroitin-sulfate–like compounds share structural similarities with compounds found in cartilage and connective tissues (Khotimchenko, 2018). Researchers have proposed that these marine-derived nutrients may help support normal connective-tissue integrity and tissue resilience in mammals.

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Marine Nutraceuticals in Canine Nutrition

Marine-derived joint ingredients have become increasingly common in canine formulations. While large sea-cucumber–specific canine trials remain limited, the broader marine-nutraceutical evidence base in dogs is informative.

Barbeau-Grégoire et al. (2022). A systematic review and meta-analysis of enriched diets and nutraceuticals in canine and feline osteoarthritis evaluated marine-derived joint-support ingredients.

Vijarnsorn et al. (2019). A canine trial of a marine-based fatty-acid compound reported joint-support outcomes in dogs with osteoarthritis, illustrating interest in marine ingredients for canine mobility.

Alves et al. (2023). A block-randomized, double-blind, placebo-controlled canine trial evaluated marine-based compounds among treatments for dogs with hip osteoarthritis.

Sea-cucumber–specific canine clinical data is emerging; current support draws on preclinical work and the wider marine-nutraceutical literature. Research is ongoing.

Mobility & Connective-Tissue Wellness

Sea cucumber has been studied for its role in supporting measures relevant to a dog's daily movement:

- Joint comfort and mobility
- Connective-tissue integrity and resilience
- Cartilage-supportive pathways (preclinical)
- Normal inflammatory balance

Tissue Health & Healthy Aging

Sea cucumbers possess notable regenerative abilities in nature, inspiring study of their compounds in tissue-remodeling and collagen-metabolism models. Human and canine evidence for wound-healing claims remains insufficient. The strongest healthy-aging rationale remains support of mobility, connective-tissue wellness, and antioxidant defenses.

Safety Profile

Sea cucumber has a long history of dietary consumption, and published research generally reports good tolerability. Because it is a marine ingredient, dogs with known seafood sensitivities should be evaluated by a veterinarian before use.

The ActivPower Perspective

ActivPower includes sea cucumber powder in ATLAS® for dogs as part of a broader nutritional strategy supporting mobility, connective-tissue function, and healthy activity — one component of a comprehensive

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wellness program.

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ActivPower ATLAS® for Dogs

Selected References — Canine & Veterinary Literature

1. Barbeau-Grégoire M, Otis C, Cournoyer A, et al. A 2022 systematic review and meta-analysis of enriched therapeutic diets and nutraceuticals in canine and feline osteoarthritis. *Int J Mol Sci.* 2022;23(18):10384.
2. Vijarnsorn M, Kwananocha I, Kashemsant N, et al. The effectiveness of marine based fatty acid compound (PCSO-524) and firocoxib in the treatment of canine osteoarthritis. *BMC Vet Res.* 2019;15:349.
3. Alves JC, Santos A, Jorge P, et al. Study of the effectiveness of glucosamine and chondroitin sulfate, marine based fatty acid compounds (PCSO-524 and EAB-277), and carprofen for the treatment of dogs with hip osteoarthritis. *Front Vet Sci.* 2023;10:1033188.
4. Khotimchenko Y. Pharmacological potential of sea cucumbers. *Int J Mol Sci.* 2018;19(5):1342.
5. Bordbar S, Anwar F, Saari N. High-value components and bioactives from sea cucumbers for functional foods—a review. *Mar Drugs.* 2011;9(10):1761–1805.

DISCLAIMER

This article is provided solely for educational and informational purposes and summarizes selected scientific literature concerning sea cucumber (Holothurian species) as a nutritional ingredient in dogs. Nothing herein is intended to diagnose, treat, cure, mitigate, or prevent any disease, injury, arthritis, inflammatory disorder, or medical condition in animals.

Statements regarding dietary supplements have not been evaluated by the U.S. Food and Drug Administration (FDA). Individual responses may vary. Pet owners should consult a qualified veterinarian before introducing any new supplement or nutritional ingredient into an animal wellness program. No claim beyond the educational discussion of current scientific literature is stated or implied.

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