



# **Boswellia serrata: Scientific Perspectives on Joint Health, Mobility, and General Wellness**

## **Introduction**

Boswellia serrata, commonly known as Indian frankincense, is a botanical resin traditionally used in wellness systems and now widely studied for its role in joint health, mobility, and normal inflammatory balance. Boswellia contains naturally occurring boswellic acids, including AKBA, which researchers have studied for their interaction with pathways involved in the body's normal inflammatory response.

Boswellia serrata powder is included as an ingredient in ActivPower's **IRx-ZEUS**® for humans and **ActivPower ATLAS**® for dogs as part of broader formulations designed to support mobility, musculoskeletal wellness, and active living.

## **Why Boswellia Is Studied for Joint Support**

The strongest human research on Boswellia relates to joint comfort, flexibility, and physical function. A 2020 meta-analysis of randomized controlled trials reported that Boswellia and Boswellia extracts were associated with improvements in pain, stiffness, and physical function scores in people studied for osteoarthritis-related outcomes (Yu et al., 2020).

Several clinical studies have evaluated standardized *Boswellia* extracts in adults with knee osteoarthritis and reported improvements in measures such as WOMAC pain, stiffness, and function scores (Kimmatkar et al., 2003; Sengupta et al., 2008; Yu et al., 2020). These findings support *Boswellia*'s role as a botanical ingredient of interest for joint comfort and mobility support.

For regulatory purposes, it is more appropriate to describe *Boswellia* as supporting joint comfort, flexibility, mobility, and musculoskeletal wellness rather than claiming that it treats arthritis or reduces disease-related inflammation.

## **Normal Inflammatory Balance**

Boswellic acids have been studied for their interaction with inflammatory signaling pathways, including 5-lipoxygenase, NF- $\kappa$ B, COX-2, MAPK signaling, and cytokine-related pathways (Ammon, 2016; Frontiers review, 2025). These mechanisms help explain why *Boswellia* is often discussed in the scientific literature as a botanical that may support normal inflammatory balance.

However, “anti-inflammatory” should be used carefully in consumer-facing supplement marketing.

ActivPower's position on the use of *Boswellia* in its products and its value is based on the observation that *Boswellia serrata* has been studied for its role in supporting the body's normal inflammatory balance and healthy musculoskeletal function.

## **Evidence in Dogs**

*Boswellia* has also been evaluated in companion animal nutrition. A randomized, placebo-controlled, double-blind clinical trial in dogs studied a dietary supplement containing *Boswellia serrata* together with other joint-support ingredients in dogs with osteoarthritis-related mobility concerns (Martello et al., 2022). Because the study used a multi-ingredient formula, the results cannot be attributed to *Boswellia* alone, but the trial supports scientific interest in *Boswellia*-containing nutritional strategies for canine mobility and quality of life.

## **Wound Healing and Tissue Health**

*Boswellia* has a history of traditional use in tissue and skin-related applications, and emerging preclinical studies have investigated *Boswellia* extracts in wound-healing models. Laboratory and animal research suggests possible roles in antioxidant activity, microbial balance, collagen-related tissue repair pathways, and normal inflammatory regulation.

This area remains preliminary. There is not enough human clinical evidence to claim that oral Boswellia supplements heal wounds.

“Preclinical research has explored Boswellia extracts in tissue-health models, but human evidence remains limited.”

## **Longevity and General Wellness**

There is currently no reliable human clinical evidence showing that Boswellia extends lifespan or directly promotes longevity. Its wellness relevance is better described indirectly through support for mobility, physical activity, and normal inflammatory balance.

“By supporting mobility and everyday physical function, Boswellia may contribute to wellness routines that help people and pets stay active.”

## **Safety Considerations**

Boswellia is generally reported as well tolerated in published studies, though mild digestive symptoms may occur in some individuals. People who are pregnant, nursing, taking medications, preparing for surgery, or managing medical conditions should consult a qualified healthcare professional before using supplements. Pet owners should consult a veterinarian before introducing any new supplement to an animal’s routine.

## **ActivPower Perspective**

ActivPower includes Boswellia serrata powder in **IRx-ZEUS**® for humans and **ActivPower ATLAS**® for dogs as part of broader formulas intended to support mobility, joint comfort, and musculoskeletal wellness. The scientific literature supports Boswellia as a botanical ingredient of interest for healthy movement and normal inflammatory balance, while also making clear that it should not be presented as a treatment, cure, or prevention for arthritis, wounds, inflammation-related disease, or aging.

## **Selected References**

Ammon HPT. Boswellic acids and their role in chronic inflammatory diseases. *Advances in Experimental Medicine and Biology*. 2016.

Kimmatkar N, Thawani V, Hingorani L, Khiyani R. Efficacy and tolerability of Boswellia serrata extract in treatment of osteoarthritis of knee. *Phytomedicine*. 2003.

Martello E, Bigliati M, Adami R, et al. Efficacy of a dietary supplement in dogs with osteoarthritis: A randomized placebo-controlled, double-blind clinical trial. *PLOS ONE*. 2022.

Sengupta K, Alluri KV, Satish AR, et al. A double blind, randomized, placebo controlled study of the efficacy and safety of 5-Loxin for treatment of osteoarthritis of the knee. *Arthritis Research & Therapy*. 2008.

Yu G, Xiang W, Zhang T, Zeng L, Yang K, Li J. Effectiveness of Boswellia and Boswellia extract for osteoarthritis patients: A systematic review and meta-analysis. *BMC Complementary Medicine and Therapies*. 2020.

## **Educational Disclaimer**

This article is provided solely for educational and informational purposes and summarizes selected scientific literature concerning *Boswellia serrata* and its use as a nutritional ingredient in humans and animals. References to joint health, mobility, normal inflammatory balance, tissue health, longevity, wellness, or scientific studies are provided for educational discussion only.

Nothing in this article is intended to diagnose, treat, cure, mitigate, or prevent any disease, injury, wound, inflammatory disorder, arthritis, or medical condition in humans or animals. Statements regarding dietary supplements have not been evaluated by the U.S. Food and Drug Administration. Individual responses may vary. Consumers should consult qualified healthcare professionals or veterinarians before introducing any new supplement into a human or animal wellness program.

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