

# Optima™

## BoneActive

Food For Special Dietary Use



400g Tin Can

Bone & Joint

Cardiac Support

ICU Nutrition

# Features, Advantages & Benefits

## ✦ Key Features

**High Bioavailable Calcium**  
536mg calcium per 100g (70% DV) with optimal calcium-to-phosphorus ratio for superior absorption.

**Collagen Type II**  
Contains collagen to support joint health, cartilage integrity, and flexibility.

**Complete Mineral Matrix**  
Magnesium (140% DV), Zinc, and Manganese for complete bone metabolism support.

**Vitamin D3 Enhanced**  
13mcg Vitamin D (50% DV) for optimal calcium absorption and bone remodeling.

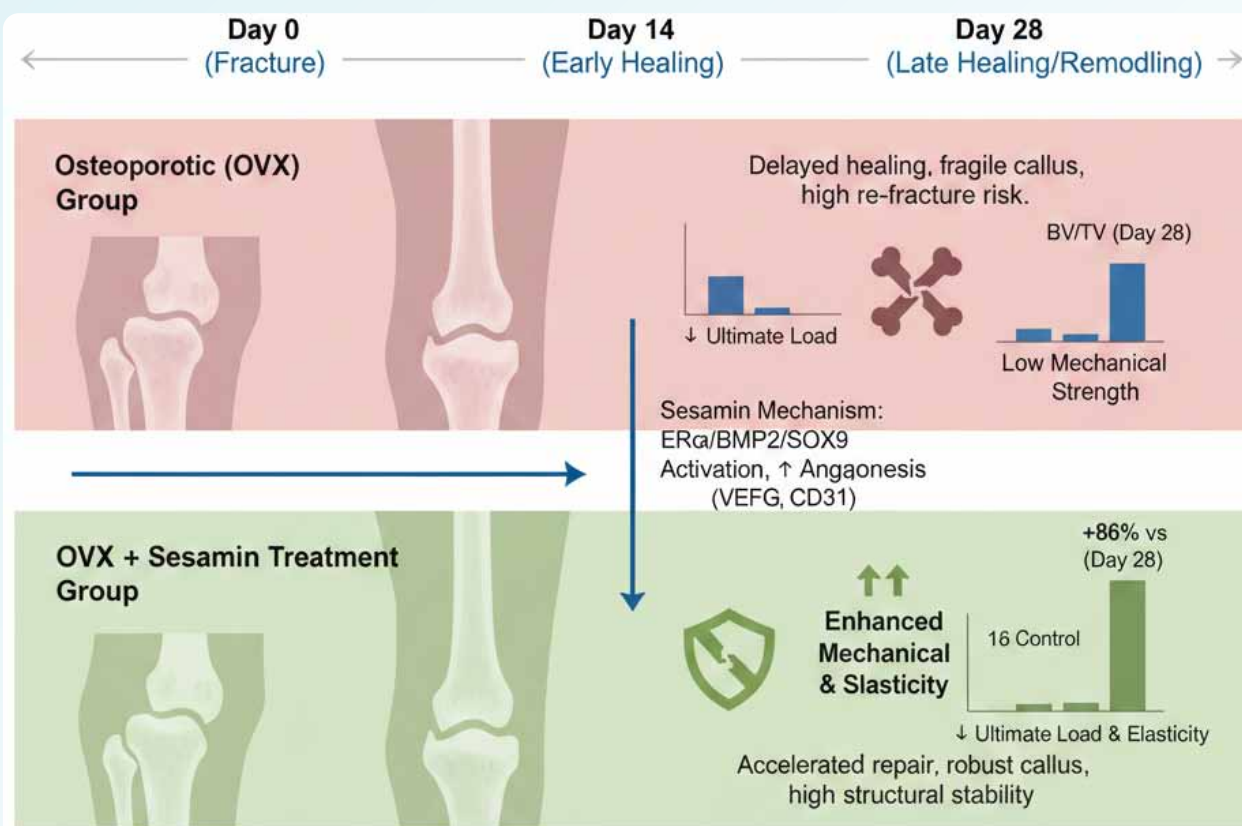
## ✔ Indications for Use

- ✔ **Osteoporosis & Bone Loss** - Enhanced calcium and mineral content for bone density
- ✔ **Osteoarthritis & Joint Disorders** - Collagen Type II for joint support and mobility
- ✔ **Post-Surgery & Fracture Recovery** - Accelerated bone healing and strength
- ✔ **Athletes & Active Lifestyle** - Support for joint mobility and flexibility

## ≡ Key Nutritional Facts (Per 100g)

Nutrient	Amount	% DV	Nutrient	Amount	% DV
Calories	450	-	Dietary Fiber	22g	79%
Total Fat	17g	22%	Vitamin D	13mcg	50%
Protein	22g	44%	Calcium	536mg	70%
Total Carbs	52g	19%	Magnesium	367mg	140%

# Clinical Evidence & Research



## Clinical Study Summary: Sesamin Promotes Osteoporotic Fracture Healing

**Study Overview:** This study investigates sesamin, a natural phytoestrogen derived from sesame, as a safer alternative to estrogen replacement therapy for promoting fracture healing in postmenopausal osteoporosis. Traditional treatments often carry risks of serious side effects.

**Mechanism:** Sesamin acts as a ligand for estrogen receptor alpha (ERα), forming a hydrogen bond with residue ARG346. This activates the bone morphogenetic protein 2 (BMP2) signaling pathway, critical for bone and cartilage development.

**Key Findings:** Sesamin significantly enhanced angiogenesis (blood vessel formation) by upregulating VEGF and Mmp2 markers. It promoted chondrogenesis (cartilage development) and increased proteoglycan synthesis. In ovariectomized mice, oral sesamin (80 mg/kg/day) improved callus formation, bone reconnection, narrower fracture gaps, and better mechanical strength.

**Conclusion:** Sesamin facilitates osteoporotic fracture healing by stimulating both chondrogenesis and angiogenesis through the ERα/BMP2/SOX9 pathway, making it a promising herb-derived bioactive compound for treating fractures in postmenopausal women.

**Reference:** *Nutrients* 2022, 14, 2106 | DOI: 10.3390/nu14102106

# Ready to Experience Optima BoneActive?

Request a free sample today and discover how Optima BoneActive can support your patients' bone and joint health.

## Request a Sample



### Website

[www.nutricaa.com](http://www.nutricaa.com)



### Email

[info@nutricaa.com](mailto:info@nutricaa.com)



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### Location

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Mohakhali, Dhaka - 1209  
Koltapara, Gouripur, Mymensingh - 2270,  
Bangladesh

## Product Information

FORMAT

**400g Tin Can**

FLAVOR

**Natural**

PRODUCT CODE

**0788792139817**

SERVINGS

**10 per Container**

SERVING SIZE

**40g (5-6 tsp)**

UNITS/CARTON

**4**



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This product is not intended to diagnose, treat, cure, or prevent any disease.