



# Biome Osteo™ Probiotic

## Condition Management Guide To promote bone health



### INTRODUCTION

Biome Osteo™ Probiotic contains a clinically trialled combination of three probiotic strains (Lactobacillus plantarum HEAL9, Lactobacillus plantarum HEAL19, and Lactobacillus paracasei 8700:2) with vitamin D3, and may help to promote bone health in adults. The clinical trial, conducted in Sweden in 249 post-menopausal women over a period of 12 months, demonstrated a significant reduction in the loss of bone mineral density (assessed at the lumbar spine) in the women who took the probiotic product daily, compared to the women who received placebo.

We recommend Biome Osteo™ Probiotic as an adjunct to vitamin and mineral supplements indicated for bone health (including calcium and vitamin D3), or medications such as bisphosphonates.

### CONSIDER AS AN ADJUNCT TO:

Bisphosphonates

Denosumab

Strontium Ranelate

Raloxifene

Hormone Replacement Therapy



### CONSIDER AS A COMPLEMENT TO:

Calcium Supplements

Vitamin D3





# Biome Osteo<sup>TM</sup> Probiotic

## Supporting clinical research



Microbiol Spectr. 2017 Aug;5(4). doi: 10.1128/microbiolspec.BAD-0015-2016.

### THE POTENTIAL OF PROBIOTICS AS A THERAPY FOR OSTEOPOROSIS.

Collins FL, Rios-Arce ND, Schepper JD, Parameswaran N, McCabe LR

Osteoporosis, characterized by low bone mass and micro-architectural deterioration of bone tissue with increased risk of fracture, can be categorized into two forms: primary and secondary, depending on whether it occurs as part of the natural aging process (estrogen deficiency) or as part of disease pathology. In both forms bone loss is due to an imbalance in the bone remodeling process, with resorption/formation skewed more toward bone loss.

**Recent studies and emerging evidence consistently demonstrate the potential of the intestinal microbiota to modulate bone health.** This review discusses the process of bone remodeling and the pathology of osteoporosis and introduces the intestinal microbiota and its potential to influence bone health.

In particular, we highlight recent murine studies that examine how probiotic supplementation can both increase bone density in healthy individuals and protect against primary (estrogen deficiency) as well as secondary osteoporosis. Potential mechanisms are described to account for how probiotic treatments could be exerting their beneficial effect on bone health.