



Natural solution to debilitating post menopause condition

FORTIBONE® with specific collagen peptides supports bone health



While hot flushes and night sweats are probably among the most commonly feared symptoms of menopause – not to mention weight gain, dry skin, disturbed sleep and thinning hair – what's not so well known is the potentially devastating impact it can have on bone health in later life.

Plummeting oestrogen levels during menopause significantly speed bone loss and increase the risk of osteoporosis – which literally means 'porous bone'. That's because the dwindling hormone produced by the ovaries plays a key role in the maintenance of both bone density and strength.

The human body reaches peak bone mineral density around the age of 30, after which it starts to decline. Up to 20% of bone loss can happen during and after menopause¹.

Denial of risk

Worldwide, osteoporosis is estimated to affect 200 million women – approximately one-tenth of whom are aged 60, one-fifth aged 70, two-fifths aged 80 and two-thirds aged 90². Furthermore, and rather worryingly, a survey of the International Osteoporosis Foundation (IOF), conducted in 11 countries, showed denial of risk by post-

menopausal women, lack of dialogue about osteoporosis with their doctor, and restricted access to diagnosis and treatment before the first fracture³. An ever-ageing global population also looks set to result in a major increase in the incidence of osteoporosis in postmenopausal women⁴.

Not surprisingly, the condition takes a huge toll, both from a personal and economic perspective. Fractures have a major impact on quality of life by causing pain, disability, loss of independence, morbidity and even mortality in affected patients. In Europe, disability due to osteoporosis is greater than that caused by cancers (with the exception of lung cancer)⁵.

So what can be done to not only treat this potentially devastating problem – which causes one-third of women and one-fifth of men aged 50 and over to suffer an osteoporotic fracture⁶ – but also help prevent it?

While eating a balanced diet, including foods rich in vitamin D and calcium, taking regular exercise and reducing alcohol consumption can undoubtedly help support bone health after menopause, it will not significantly reduce the progression of the disease or the risk of fractures. Pharmacological treatments, meanwhile, such as bisphosphonates, human monoclonal antibodies

and selective oestrogen receptor modulators, can all have adverse side-effects, ranging from problems swallowing and stomach pain to hot flushes, leg cramps and a potential increased risk of blood clots⁷.

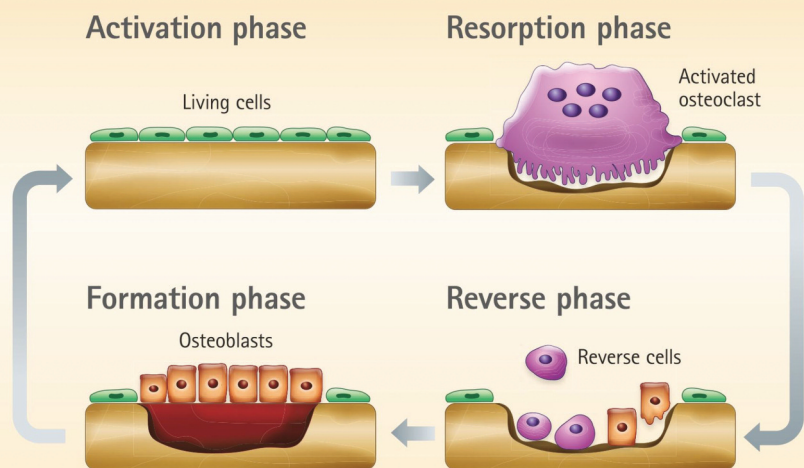
Early intervention

As is the case with all medical issues, prevention is obviously better than cure. When it comes to the maintenance of bone health, early nutritional intervention is key. Here, Bioactive Collagen Peptides (BCP®) can play a crucial role as they can help maintain bone health and also counteract bone loss. FORTIBONE®, part of GELITA's portfolio of BCP® designed to address various needs in different parts of the body, stimulates bone cells to increase the synthesis of bone components such as collagen – the major constituent of bone mass – thus supporting bone stability.

Why is collagen vital for bone health?

Collagen, the most abundant protein in the body, is crucial for joint mobility, stable bones, healthy muscles, strong ligaments and tendons, smooth skin, glossy hair and healthy nails. Yet the body's own production of this vital protein diminishes with age.

Bone metabolism



In a healthy bone metabolism, the bone structure is evenly broken down and rebuilt. After menopause, lower oestrogen levels can disrupt this process, leading to more bone loss caused by osteoclasts

The human bone matrix consists of 70% inorganic minerals, such as calcium and phosphorus, which are responsible for bone strength. Organic matter with collagen fibres makes up a further 20% and the remainder (10%) is water.

Collagen forms the scaffold for bone mineralisation, allowing calcium and other minerals to be deposited. However, if the bone matrix is weak, there are not enough binding sites for calcium, resulting in a lack of bone density. A stable collagen structure is therefore vital for strong and healthy bones. Supplementation in later life can help achieve this by improving bone density and elasticity.

FORTIBONE® consists of Bioactive Collagen Peptides that have been shown to support bone health by stimulating bone cells to produce more collagen, and thus promotes an increase in bone

density. Taken orally, it passes effortlessly through the intestinal wall, enters the bloodstream in partially intact form and is highly bioavailable.

Scientifically proven

A randomised, controlled double-blind study of 2018 examined the effect of FORTIBONE® on bone mineral density at the spine and femoral neck in postmenopausal women⁸. The year-long study showed a significant increase in bone density in the spine and in the femoral neck in the women who took FORTIBONE®, while it decreased in the placebo group.

A follow-up study conducted in 2021⁹ revealed a long-term increase in bone density with 5g FORTIBONE® daily for three more years.

Initial research into the mode of action of FORTIBONE® indicates a stimulating effect on osteoblasts (bone-building cells). This anabolic

effect can increase collagen synthesis and supports the development of a stable bone structure. In contrast to conventional pharmacological treatments, which aim to prevent bone resorption, FORTIBONE® supports the natural formation of bone.

"Menopause can be a challenging time for women, with many at risk of osteoporosis due to dwindling oestrogen levels. Early nutritional support such as that provided by our Bioactive Collagen Peptides is therefore vital and can help maintain bone health and counteract bone degradation," says Martin Walter, Category Manager Healthy Aging & Sports Nutrition at GELITA.

Neutral in taste and clear in colour, FORTIBONE® can be used in a variety of supplement formats (e.g. sachets, vials, gels, functional food) and can be easily combined with vitamins, minerals and other nutrients. It also has excellent water solubility, high heat and acid stability, and is both natural and non-allergenic.

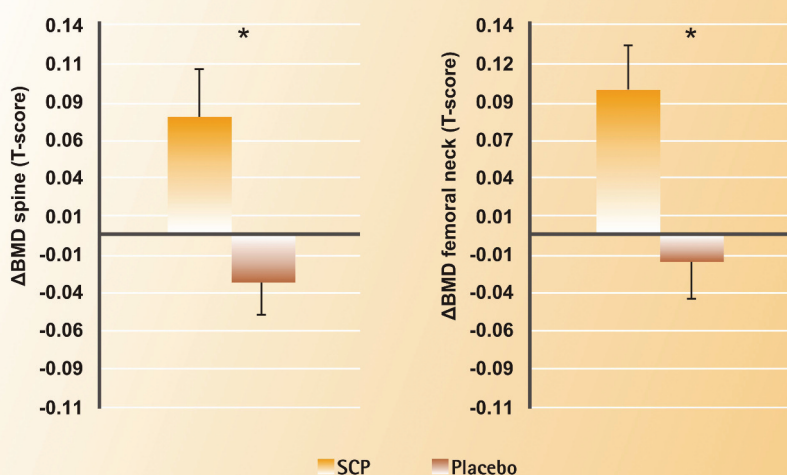
"We have been at the forefront of researching BCP® and their role in supporting not only bone health, but that of joints and tendons too," adds Walter. "And we continue to conduct intensive preclinical and clinical research to further examine the connection between nutrition and bone health. Based on this research, innovative collagen products to increase bone density are being developed."

Extensive BCP® portfolio

GELITA's portfolio of BCP® features products tailored for different parts of the body, and all designed to improve quality of life. As well as FORTIBONE®, there is BODYBALANCE®, which improves body composition, PeptENDURE® for enhanced endurance performance, FORTIGEL® to support joint health, TENDOFORTE® for stronger tendons and ligaments, and VERISOL® for improved skin, nail and hair health.

All products are created from allergen-free, clean-label ingredients and can be easily incorporated into food supplements, functional food products, protein bars, granulates, ready-to-drink concentrates and sports drinks.

Changes in bone mineral density



A scientific study has shown that taking 5g of FORTIBONE® daily for 12 months increased the bone mineral density of postmenopausal women.

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