

# Collagen Pro-Active

Bringing innovative Wellness and Beauty to South Africa -  
- Liquid Collagen for Youth and Vitality from within.



## YOUTH | STRENGTH | VITALITY

### Collagen Pro-Active and Bone Development & Maintenance



As our population ages, the drawbacks of aging are becoming more apparent.

Osteoarthritis and osteopenia, two of the major health concerns, are among the leading causes of pain and disability.

Our Bones, which make up our skeleton are composed of cells embedded in hard intercellular material (the matrix) made of mineralized substances and collagen fibers.

Like all body tissues, bones are in a continuous state of flux. The integrity of our bones and the maintenance of appropriate mineral levels depend on a dynamic process called bone remodeling or bone turnover.

Bone mass increases progressively in childhood, as we grow. The age at which bone loss starts is uncertain but, it is generally believed to be during the thirties in both sexes.

Approximately 15% of bone in healthy adults is replaced by bone turnover each year. This is significant.

Bone resorption is the process by which osteoclasts break down bone and releases the minerals, resulting in a transfer of calcium from the bone to the blood. Irregular rates of bone resorption and formation – leading to more bone loss than formation – are a hallmark to osteopenia.

Osteopenia describes individuals who have a low bone mass and some increased risk of fracture. Their bone mass is not so low that they are deemed to have osteoporosis. It has been demonstrated that an early diagnosis and treatment of osteopenia reduces fracture rates and improves quality of life.

#### Can Oral Collagen prevent and maintain bone strength?

Several studies on Collagen, which represents 90% of organic bone mass, suggest that orally administering collagen peptides may provide beneficial effects on bone metabolism, especially in the calcium-deficient condition such as osteopenia, WITHOUT undesirable effects.

Several studies show that a minimum daily intake of 10g (10 000mg) of Collagen peptides (Type II), for up to 24 weeks can increase bone mass density. Collagen Pro-Active provides 10 000mg of Premium quality, Type II, Hydrolysed Collagen in each daily serving.

Researchers have produced several keys for understanding how collagen peptides work in increasing and maintaining bone integrity.



They have also shown that the extra-cellular matrix in which cells grow, is decisive in their differentiation. Studies have demonstrated that when collagen peptides metabolites are present in this matrix.

Osteoblasts (the cells responsible for bone formation), are preferentially stimulated, instead of Osteoclasts (the cells involved in bone resorption - bone loss), this thus, triggers increased bone formation.

The Collagen Peptides within Collagen Pro-Active, have been found to be effective on bone metabolism by inducing differentiation and maturation of Osteoblasts, AND increasing their activity.

Continuous daily use of Collagen Pro-Active can thus modulate Bone turnover. This prevents bone loss during the natural ageing process, and increases bone solidity and strength.

Studies have now demonstrated the clinical benefits of Collagen peptides (10 000mg daily of high quality Collagen) on bones.

#### For our patients this translates into:

- increased bone and mineral density
- increased bone size
- less brittle bones - hence lowering the risk of Fractures, and
- the stimulation of Osteoblast activity (stimulating bone growth). Pro-Active SA



References/Studies:

1. Roland W. Moskowitz, Role of Collagen Hydrolysate in Bone and Joint Disease, Seminars in Arthritis and Rheumatism, Vol. 30, No 2 (October), 2000: pp. 87-99.

2. J. A. Pasco, E. Seeman, M. J. Henry, E. N. Merriman, G. C. Nicholson, M. A. Kotowicz, The population burden of fractures originates in women with osteopenia, not osteoporosis, Osteoporos Int (2006) 17: 1404–1409, DOI 10.1007/s00198-006-0135-9, International Osteoporosis Foundation and National Osteoporosis Foundation 2006.