

BONEX (ANTI-OSTEOPOROSIS BONE MINERAL DENSITY ENHANCER)

TECHNOLOGY DESCRIPTION

The technology is an anti-osteoporosis bone mineral density enhancer (BONEX) to mitigate bone loss and suppress osteoporosis.

TECHNOLOGY FEATURES

The technology uses green tea and oil palm leaves extracts as the raw material to mitigate bone loss and suppressing osteoporosis. High content of polyphenols in the green tea and oil palm leave are favorable towards reducing osteoporosis. The extracts also display similar beneficial properties such as increasing *in vivo* bone mineral-density, improved estradiol levels, antioxidant status and enhanced osteoblast activity involved in bone building. Thus, these extracts which is able to suppress bone loss caused by estrogen deficiency may have potential as an alternative or complementary agent in maintenance of bone mass and prevention against osteoporosis.

ADVANTAGES

- High content of polyphenols
- increase *in vivo* bone mineral-density

INDUSTRY OVERVIEW

Prospects: Health supplement market, Producers of osteoporosis medications.

In Malaysia, it is estimated that over 1 million people are at risk from osteoporosis. The exact magnitude in Malaysia is not known but hip fracture incidence in 1996-1997 in the over 50 years of age is 90/100,000 and is likely to increase with Malaysia's ageing population. The cost of osteoporosis treatment ranges from, on the low end, about USD10 a month for the generic version of Fosamax, to about USD80 a month for brand-name Fosamax or Actonel to USD900 or more a month for Forteo. In Malaysia, as in many other countries around the world, the promotion of bone health must include strategies to correct the problem of low vitamin D levels at all stages of life. Hence, the anti-osteoporosis bone mineral density enhancer would be an excellent supplement to the medications.



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