

# Soybean foods may protect menopausal women against osteoporosis

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Eating a diet rich in both soy protein and isoflavones can protect menopausal women from bone weakening and osteoporosis, according to the results of a preliminary study presented today at the Society for Endocrinology annual conference in Edinburgh.

Osteoporosis is a common condition where bones become brittle and fragile from tissue loss, causing 9 million fractures worldwide every year. In women, bone loss occurs most quickly in the years immediately after menopause because they produce less of the sex hormone oestrogen, which protects against bone loss.

Soybean foods contain chemicals known as isoflavones that are similar in structure to oestrogen and so could theoretically protect women against osteoporosis by mimicking the action of oestrogen.

In this study, researchers from the University of Hull gave two hundred women in [early menopause](#) a daily supplement containing soy protein with 66mg of isoflavones or a supplement with soy protein alone for six months. The researchers investigated changes in the women's bone activity by measuring certain proteins ( $\beta$ CTX and P1NP) in their blood.

They found that the women on the soy diet with isoflavones had significantly lower levels of  $\beta$ CTX than the women on soy alone, suggesting that their rate of [bone loss](#) was slowing down and lowering their risk of developing osteoporosis. Women taking soy protein with isoflavones were also found to have decreased risk of cardiovascular

disease than those taking soy alone.

Lead author of the study Thozhukat Sathyapalan said: "We found that soy protein and isoflavones are a safe and effective option for improving [bone health](#) in women during early menopause. The actions of soy appear to mimic that of conventional osteoporosis drugs."

"The 66 mg of isoflavone that we use in this study is equivalent to eating an oriental diet, which is rich in soy foods. In contrast, we only get around 2-16 mg of isoflavone with the average western diet."

"Supplementing our food with isoflavones could lead to a significant decrease in the number of [women](#) being diagnosed with osteoporosis."

Researchers next aim to investigate the long-term health consequences of using [soy protein](#) and isoflavones supplements, and whether it may also have benefits beyond [bone](#) health.

Provided by Society for Endocrinology

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