

## PRESS RELEASE

# Soybean foods may protect menopausal women against osteoporosis

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.

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## Notes for editors

1. The study *Soy protein with isoflavones reduce bone turnover markers in women during their early menopause – a randomised double blind parallel study* is a poster presented by Thozhukat Sathyapalan at the Society for Endocrinology's annual conference. Please note this is a conference abstract, and this study has not yet been published in a peer-reviewed journal.
2. For press enquiries, please contact the Society for Endocrinology press office:

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3. The Society for Endocrinology's annual conference is held at the Edinburgh International Conference Centre from 2-4 November 2015. The conference features some of the world's leading basic and clinical endocrinologists who present their work. Journalists wishing to attend should contact the Society for Endocrinology press office using the details above. The scientific programme is available on the [conference webpage](#).
4. The Society for Endocrinology is a UK-based membership organisation representing a global community of scientists, clinicians and nurses who work with hormones. Together we aim to improve public health by advancing endocrine education and research, and engaging wider audiences with the science of hormones.  
[www.endocrinology.org](http://www.endocrinology.org)