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SOY AWARENESS, SOY SAFETY

The World Health Organization estimates that by 2025 as many as 1.2 billion women will have reached the age of 50, a common point of menopause onset. This will be nearly triple the number that attained their half century in 1990 and further demonstrates that the market for products addressing menopause symptoms will demand attention both now and in the future. All too often, such symptoms diminish quality of life, robbing skin of suppleness and elasticity, rendering bones vulnerable to fracture, making a good night's sleep harder to achieve and raising a sweat with hot flushes. However, women entering menopause today have been conditioned by a lifetime of good health to expect nothing less from their menopausal years than the vitality they've always enjoyed ... and they're hungry for therapies that deliver just that.

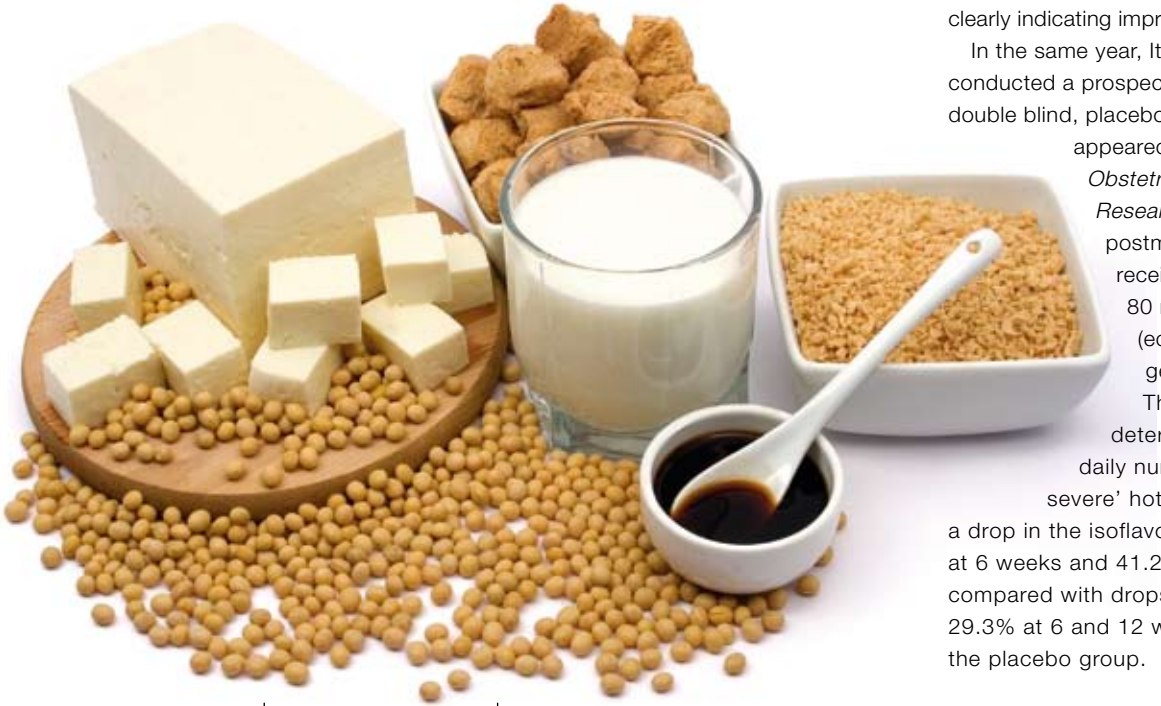
The most common conventional therapy is hormone replacement using oestrogen, which has a record of improving skin condition, protecting against osteoporosis and cardiovascular disease and alleviating hot flushes. Although oestrogen replacement may be conventional, it is by no means the only therapy available. Epidemiological studies reveal that women in soy consuming cultures suffer fewer hot flushes than those in the West — an inverse relationship that was demonstrated in a 2001 study of Japanese women published in the *American Journal of Epidemiology*.

The Isoflavone Advantage

The substances responsible for this benefit are isoflavones, which are non-steroidal compounds found naturally in soy. Genistein, daidzein and glycitein are soy's primary isoflavones and, as a result of their structure, which is similar to that of oestrogen, they bind weakly to the hormone's receptors in skin, bones and blood vessels, where research shows they lessen the same menopause symptoms.

A prospective study conducted on 30 postmenopausal women, published in 2009 in the journal *Clinics*, found that 6 months after treatment with a 100 mg daily dose of isoflavone rich soy extract, 23 of the subjects experienced a 9.46% increase in epidermis thickness, 25 saw an increase in collagen fibres and 21 displayed an increase in the number of dermal blood vessels, clearly indicating improved skin condition.

In the same year, Italian researchers conducted a prospective, randomized, double blind, placebo controlled trial that appeared in the *Journal of Obstetrics and Gynecology Research*, during which 180 postmenopausal subjects received either a daily 80 mg isoflavone tablet (equivalent to 60 mg of genistein) or a placebo. The researchers determined the mean daily number of 'moderate to severe' hot flushes and found a drop in the isoflavone group of 36.2% at 6 weeks and 41.2% at 12 weeks, compared with drops of 24.0% and 29.3% at 6 and 12 weeks, respectively, in the placebo group.



Safety First

Results such as these should provide encouragement to women eager to ease menopausal symptoms. However, given that prolonged oestrogen treatment may increase the risk of endometrial and breast cancers, the structural similarity between oestrogen and soy isoflavones raises the question of whether they too might pose some risk. In fact, studies vindicate the safety of isoflavones. One, published in 2010 in the journal *Climactric*, found that among 197 postmenopausal subjects, no cases of endometrial cancer and only one of simple endometrial hyperplasia arose after 3 years of treatment with a standardized 70 mg per day dose of soy isoflavone extract. Mammography results also registered no change from baseline, leading the researchers to declare the extract safe for both endometrium and breast.

Hadar Sutovsky, global sales manager for isoflavones at Solbar and an expert in proteomics and structural biology, is happy to see the latest research dispersing the foggy rumours of risk that cling to isoflavones. She believes "that the elucidation of isoflavones' low affinity for breast and womb oestrogen receptors, as well as our increasing understanding of isoflavones' selective binding, strongly supports the clinical research published in *Climactric*," and does not hesitate to "claim without doubt that we supply a safe alternative."

Isoflavones in Action

Sutovsky also draws attention to the fact that Solbar's products contain high levels of genistin and genistein in a glycoside conjugate to aglycone ratio that matches the profile of isoflavones as they naturally occur in the soybean. The fact that there is "no synthesis of artificial molecules, no de novo design or chemical manipulation, no genetic modifications or fermentations" constitutes, for her, "the beauty of our production," which is "merely an alcoholic extraction and standardization." The company offers a microencapsulated slow release product, Solgen SR, which liberates small particles of isoflavone into the blood for 12 hours. "The gradual absorption of Solgen SR avoids momentary peaks in concentration, which might cause undesirable effects, in addition to the possibility of excretion in body fluids," Sutovsky adds. A 2005 study published in the *Journal of Agricultural and Food Chemistry* demonstrated the pharmacokinetics of the slow release formulation in healthy women. A growing body of evidence also suggests that soy isoflavones exert cardioprotective effects to improve blood lipid profiles — another reason to accept isoflavones as an option in the creation of products that will allow the active lives of today's women to continue into the future.

For more information

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