

## Soy and Thyroid Function

There has been a long history of research into the effects of different types of soy products on thyroid function. In fact, the first animal study was published in 1933.

Interest in the soy-thyroid relationship was heightened in the early 1960s when a few cases of goiter (enlarged thyroid) were identified in infants consuming soy infant formula. As a result, soy formula was fortified with the mineral iodine – an essential nutrient required for proper functioning of the thyroid. Also at this time the source of protein in the formula was switched from soy flour to isolated soy protein. These changes have eliminated any potential thyroid problems associated with the use of soy infant formula.

In the 1990s however, research in rats suggested that the soybean isoflavones (often referred to as phytoestrogens) might have anti-thyroid effects. Of course, rats are not little humans. Still, establishing the impact of soy on thyroid function is important since many postmenopausal women have subclinical hypothyroidism. Women with this condition have normal levels of key thyroid hormones but are at risk for developing hypothyroidism (low thyroid function).

In a comprehensive review of the scientific literature published in 2006 in the journal *Thyroid*, the authors concluded that **neither soyfoods nor isoflavone supplements affect thyroid function in healthy subjects**. Although one Japanese study did report in 1991 that soybeans caused thyroid problems in Japanese subjects, this study was very poorly designed and is greatly outweighed by the results from the many well-designed trials published since that time. Still, no published studies have specifically involved women with subclinical hypothyroidism. That research is currently underway. Women who think they have thyroid problems are well-advised to see a physician. Thyroid status is easily assessed.