Phytoestrogens Shown to Lessen Endometrial Cancer Risk

Endometrial cancer is associated with prolonged exposure to estrogens without cyclic exposure to progesterone. Isoflavones in soybeans and lignans in flax have weak estrogenic effects, and by binding to estrogen receptors in cells block estrogen's ability to promote cell division that may lead to cancer.

In a study published in the Journal of the National Cancer Institute, researchers at the Northern California Cancer Center report a link between phytoestrogen intake and a reduced risk of endometrial cancer.* Investigators collected data on food consumption from 500 women, 35 to 79 years old, who were diagnosed with endometrial cancer, documenting their food intake one year prior to diagnosis. These were compared to 470 matched controls. The questionnaire included the intake of three classes of phytoestrogens in food: isoflavones (including genistain and daidzein), coumestans, and lignans.

Isoflavone and lignan intake was inversely related to the risk of endometrial cancer: the highest consumption of isoflavones (about 2.7 mg or more) and lignans (about 0.2 mg or more) reduced endometrial cancer risk by approximately half compared to controls. Postmenopausal women showed the most benefit. The protection by phytoestrogens, previously observed for soy intake, suggest that phytoestrogens in soy are the compounds responsible for the associated cancer preventive effects.

—Carmia Borek, PhD


New Studies Support Silicon’s Role in Bone Formation

Two recent studies in the medical journal Bone support the theory that silicon, the second most abundant element in the Earth’s crust, plays an important role in bone formation.

In the first study, researchers found that silicon (as orthosilicic acid) may have a stimulatory effect on bone formation in the human body. “Orthosilicic acid at physiologic concentrations stimulates collagen type 1 synthesis in human osteoblast-like cells and enhances osteoblastic differentiation,” the researchers reported.

In another study, scientists found that dietary silicon was associated with greater bone mineral density in approximately 3,000 American men and premenopausal women, but not in
post-menopausal women. According to the researchers, these findings are "consistent with [silicon's] role in bone formation rather than in preventing bone resorption. Orthosilicic acid appears to be an important nutrient with anabolic effects on bone."

In an interview with Life Extension, researcher Dr. Ravin Jugdaohsingh of St. Thomas' Hospital in London said, "silicon is a major component of the human diet, the intake of which has greatly been reduced due to modern food processing and refining, water treatment and purification, and the growth of vegetables under hydroponic conditions. Animal studies have shown that silicon is important for normal growth and development, specifically with skeletal growth.

"Currently, nearly all treatments for osteoporosis (or low bone mass) work by reducing the breakdown of bone, but none, with the exception of parathyroid hormone, actually increase bone formation (i.e., make new bone). Silicon could thus provide a new type of therapy for low bone mass or osteoporosis by increasing bone formation. Silicon has also been linked to atherosclerosis, having anti-atherosclerotic properties, and with connective tissue (i.e., skin, hair, and nails), and thus may have a wider beneficial role in human health."

—Marc Ellman, MD

References
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