

Soy: Summary of Toxic Effects

By Lita Lee, Ph.D.

8/12/2001

- Only one oz of soy protein consumed daily causes breast abnormalities due to soy's powerfully estrogenic effects (Petrakis, N.L., et al., 1996).
- Pregnant animals fed soy protein produced offspring with deformed sex organs and a life-long 'estrogen syndrome' (e.g. increased incidence of thyroid disease, bone loss, gallbladder disease, cancer, infertility and heart disease). The high estrogen syndrome can be corrected in one generation with a very strict high animal-protein diet and thyroid therapy. This study was done 50 years ago.
- The effect of soy protein isolate was evaluated of pre- and post-menopausal women. The results showed increased breast secretion (the effect of estrogen), increased hyperplastic epithelial cells in the breast fluid (a pre-cancerous sign) and increased plasma estradiol. This study demonstrates the strong estrogenic properties of soy protein (Petrakis, N.L., et al. 1996).
- Dietary use of soy protein in post-menopausal women gave an estrogenic response (Baird, D.D., et al., 1995).
- Soy protein contains potent thyroid inhibitors called isoflavones, mainly genistein and daidzein (Divi, R.I. and D.R. Doerge, 1997).
- Soy is an anti-thyroid substance: Hypothyroidism and goiters were reported in infants receiving soy-containing formula (Valentine, Tom, 1997). Thyroid function was studied in people consuming soy. Soy was found to cause thyroid suppression and goiters in many studies (Ishizuki, Y., et al., 1991; Divi, R.I. and D.R. Doerge, 1997).
- Soy contains potent proteolytic enzyme inhibitors (trypsin and others) which block these enzymes needed for protein digestion. These enzyme inhibitors cannot be refined out of the soy mash nor deactivated during cooking. Eating soy can thus produce serious gastric distress from reduced protein digestion and chronic amino acid deficiencies. In test animals, diets high in trypsin inhibitors caused pancreatic hypertrophy and pathologic conditions of the pancreas, including cancer (Fallon, S. W. and Mary G. Enig, 1995).
- Soy protein, especially unfermented soy protein (tofu, soy milk, soy beans) contain the highest amount of phytic acid of any known substance. This acid blocks mineral absorption: especially zinc, but also calcium magnesium, and iron. Only a long period of fermentation will significantly reduce the phytate content of soybeans (Fallon, S. W. and Mary G. Enig, 1995).
- The soybean contains a clot promoting substance called hemagglutinin, which makes red blood cells stick together or 'clump.' Hemagglutinin is deactivated during fermentation. In unfermented soy products, the hemagglutinin is reduced in quantity but not completely eliminated (Fallon, S. W. and Mary G. Enig, 1995).
- Soy protein powder is a highly refined, high temperature-produced product that is a very poor source of protein and still contains trypsin which can vary as much as 20%. Use of soy milk in

infants produces a severe mineral deficiency, especially of zinc and. In addition, soy formula contains 100 times more Aluminum than unprocessed milk (Fallon, S. W. and Mary G. Enig, 1995).

References

Baird, D.D. et al, **“Dietary intervention to assess the estrogenicity of dietary soy on post-menopausal women,”** *J. of Clinical Endocrinol. and Metabol*, Vol 80, #5, pp. 1685-1696, 1995

Divi, R.I. and D.R. Doerge, **“Anti-thyroid isoflavones from soybean: isolation, characterization and mechanisms of action,”** *Biochem. Pharmacol.*, Vol. 54 (#10), 1087-1096, Nov. 1997.

Fallon, Sally W. M.A. and Mary G. Enig, Ph.D., **‘Soy Products for Dairy Products? Not so fast...’**, *Health Freedom News*, p. 12, Sept. 1995.

Ishizuki, Y., et al., **“The effect on the thyroid gland of soybeans administered experimentally on health subjects,”** *Nippon Naibunpi Gakkai Zasshi*, Vol. 65 (#5), 622-629, 1991

Petrakis, N. L. et al., **‘Stimulatory influence of soy protein isolate on breast secretion in pre- and post-menopausal women’**, *Cancer Epidemiol. Biomarkers*, Vol. 5, #10, pp. 785-94, 1996

Valentine, Tom, **‘If you eat soy, watch your thyroid function: new study’**, *Quarterly newsletter of Carotec, Inc.*, Autumn 1997.

"Disclaimer: I am a chemist and an enzyme nutritionist, not a medical doctor. I do not diagnose, prescribe for, treat or claim to prevent, mitigate or cure any human diseases. I do not provide diagnosis, care, treatment or rehabilitation of individuals, nor apply medical, mental health or human development principles. I do not prescribe prescription drugs nor do I tell you to discontinue them. I provide enzymes and other dietary supplements to improve digestion and to nourish and support normal function and structure of the body. If you suspect any disease, please consult your physician."

Disclaimer: These statements have not been evaluated by the Food and Drug Administration. They are not intended to diagnose, prescribe for, treat or claim to prevent, mitigate or cure any human disease. They are intended for nutritional support only. The FTC requires that we tell you that the results in case notes and testimonials published here are not typical, however, they do show what some people have been able to achieve. Individuals vary, which is why we must always consider the whole person when recommending a course of action. The third party information referred to herein is neither adopted nor endorsed by this web site but is provided for general information purposes. The listing of specific disease terms is based upon medical literature and is not a substitute for competent medical advice. If you suspect a medical condition, you should consult a physician.

Copyright 2001 - 2006. Neither this article, nor any part of it, may be reproduced without permission.

If permission to reprint is granted, the article must include author and URL information.

Lita Lee, Ph.D.

<http://www.litalee.com>

Lita@litalee.com