WHOLE HEALTH: CHANGE THE CONVERSATION

Advancing Skills in the Delivery of Personalized, Proactive, Patient-Driven Care

Phytoestrogens Clinical Tool

This document has been written for clinicians. The content was developed by the Integrative Medicine Program, Department of Family Medicine, University of Wisconsin-Madison School of Medicine and Public Health in cooperation with Pacific Institute for Research and Evaluation, under contract to the Office of Patient Centered Care and Cultural Transformation, Veterans Health Administration.

Information is organized according to the diagram above, the Components of Proactive Health and Well-Being. While conventional treatments may be covered to some degree, the focus is on other areas of Whole Health that are less likely to be covered elsewhere and may be less familiar to most readers. There is no intention to dismiss what conventional care has to offer. Rather, you are encouraged to learn more about other approaches and how they may be used to complement conventional care. The ultimate decision to use a given approach should be based on many factors, including patient preferences, clinician comfort level, efficacy data, safety, and accessibility. No one approach is right for everyone; personalizing care is of fundamental importance.
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Phytoestrogens
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Phytoestrogens are plant compounds with structures similar to estrogen, which give them the ability to cause estrogen-like effects on the body. Examples include:

- **Isoflavones** from soy, lentils, and legumes
- **Lignans** from flaxseed, cereal grain, and vegetables
- **Coumestans** from red clover, sunflower seeds, and bean sprouts

Research on phytoestrogens has been inconsistent in showing improvement in hot flashes. The North American Menopause Society’s isoﬂavones report from 2011 concluded, “there are mixed results of the effects on midlife women. Soy-based isoﬂavones are modestly effective in relieving menopausal symptoms.”¹ As a result, some women may find that eating a diet high in phytoestrogens helps their menopausal symptoms, in addition to providing other health benefits. In some Asian cultures, where women consume 50-200 milligrams of isoﬂavones daily, hot flashes are rare as compared to Americans, whose typical diets contain only 3-5 milligrams daily. Soy, in particular, improves cholesterol levels and is a great plant source of protein. The highest quantities of isoﬂavones are found in less-processed foods and fermented soy products. The best food sources include soybeans or edamame, soy nuts, tofu, tempeh, and miso (see Table 1).

Flaxseed is another great source of phytoestrogens, fiber, and alpha-linolenic acid (a source of omega-3 fatty acids). As opposed to flaxseed oil, the seeds must be ground in order for them to be adequately digested. They can be sprinkled on salads, yogurt, smoothies, or cereal. A small study of 30 women showed that eating 2 tablespoons of flaxseed twice daily decreased their total number of hot flashes by half after six weeks. Hot flash intensity also decreased.²

Women may consider maximizing these healthy foods in their diets, with a goal of 50-100 milligrams of isoﬂavones daily. These foods may cause some bloating and increased gas, so intake should be increased gradually. See Table 2 for a list of foods high in phytoestrogens.

Historically, women with estrogen-sensitive conditions, such as breast and uterine cancers, were counseled against high isoﬂavone intake due to the concern of stimulating cancer growth. Recent evidence suggests that isoﬂavones obtained through the diet are likely have protective effects in breast and gynecologic cancers.³⁴ Until additional research is available,

<table>
<thead>
<tr>
<th>Table 1. Amount of Isoflavones per Serving of Soy</th>
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</thead>
<tbody>
<tr>
<td>Soy product</td>
</tr>
<tr>
<td>Tofu, 3 ounces</td>
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<tr>
<td>Soy beans, ½ cup</td>
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<tr>
<td>Soy milk, 8 ounces</td>
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<tr>
<td>Miso, ½ cup</td>
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<tr>
<td>Tempeh, 3 ounces</td>
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</tbody>
</table>

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Whole Health: Change the Conversation Website

Interested in learning more about Whole Health? Browse our website for information on personal and professional care.

http://projects.hsl.wisc.edu/SERVICE/index.php

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References