



## Summer '99: The Joy of Soy

### Nutritionist Note:

This session offers a perfect opportunity for "hands-on" involvement by participants. Limit the time spent giving information in order to allow more time for participants to see, touch and taste soyfoods and other meatless alternatives. The more 'hands-on' experience participants can have in the session, the greater their chances for trying meatless products and ideas at home. If you have never eaten soyfoods, be sure to try them before this session and take time to talk to other people who are familiar with soy products.

### Nutritionist Guidelines

**Time:** 95-117 minutes

**WHILMA:** Enter session in WHILMA as: *5SU*

**Objectives:** In this session, the participant will:

(Key Points)

- Learn how soyfoods add variety and may provide additional health benefits to a low-fat eating pattern, such as WHI.
- Explore their willingness to include soy products and other meatless alternatives in their meals.
- Practice using and tasting recipes and food products that use soy or other meatless alternatives.

**Session**

**Messages:**

- Soyfoods and other meatless alternatives provide novel and easy ways to use more plant-based foods and reduce your use of meat.
- Data is still preliminary, but soyfoods may have a role in reducing the risk of both cancer and heart disease.
- Many soy-based foods fit well into the WHI eating pattern. However, some soyfoods are higher in fat, so be sure to read the labels.

**Materials:**

- Optional ice breaker activity (see pgs. 5 and 18).
- Packages of soyfoods and meatless alternatives.
- Small cooking equipment, extension cord (pg. 12 for ideas).
- Self-monitoring tools
- Session reminder idea (pg. 17)

**Video:** The Mori Nu Company has a short introductory video tape (8-10 minutes). It briefly touches on the potential health benefits of soy, the manufacturing process of silken tofu, and how tofu can be used in a variety of dishes. A cookbook called *The Art of Tofu* accompanies the video. Interested clinics can purchase the video tape and cookbook from Morinaga Nutritional Foods, Inc. by calling 1-800-NOW TOFU (1-800-669-8638). The cost is approximately \$14.00 (price includes products + shipping).

**Other WHI Resources Related to Session:**

- Spring '99 Making WHIse Choices (DM newsletter) article: *Plant-Based Eating*
- Year 1 Participant Manual-Resource Section:
  - *Meat Stretching Ideas*, pg. 22
  - *Meatless Ideas*, pg. 23
  - *How to Stir-Fry*, pg. 50

**Nutritionist-Optional Background Reading/Resources**

- JADA September 1998 – 'For Your Information' article: *Are phytoestrogens nature's cure for what ails us? A look at the research.* Pages 974-976.
- Q&A in Nabisco Nutrition Update Fall/Winter '98 pgs. 5-6.
- Nutrition Action Newsletter - September 1998 article, *The Soy Story*.
- The Soy Connection is a newsletter for professionals, published quarterly by the United Soybean Board. If not on their mailing list, call 888-772-8452.
- 1998 Soyfoods Directory published by the Indiana Soybean Development Council provides an extensive listing of companies that make soyfoods, resources, recipes and educational materials. For a free copy call 1-800-TALKSOY or contact the web site <http://www.soyfoods.com> or email: [info@soyfoods.com](mailto:info@soyfoods.com)

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Below is a list of the maintenance sessions planned for 1999/2000. This information will help Nutritionists plan ahead when responding to participant requests for 'additional information'.

**Upcoming Maintenance Session Topics:**

- Fall 1999                      Progress in WHI (update of DM status)
- Winter 1999                  Life Transitions and Maintaining WHI (aging issues)
- Spring 2000                  Phytochemicals (focus on fruits/vegetables)
- Summer 2000                Evaluating Mixed Dishes When Eating Out
- Fall 2000                      Progress in WHI & Preparing for the Holidays

## Summer '99: The Joy of Soy (Facilitation Outline)

	<b>GROUP SHARING/GOAL FOLLOW-UP (20-30 minutes)</b>
(20-30 minutes)	<p><b>Objective:</b> Participants share ideas about their role in helping WHI better understand the diet/cancer connection.</p> <p><b>Purpose:</b> Build participant self-efficacy and group cohesion.</p> <p><b>A. Group Sharing:</b></p> <ul style="list-style-type: none"> <li>☛ “The two main reasons why WHI is still important for me are .....</li> <li>(Examples: my health, my husband’s or family’s health, my contribution to women’s health, etc.)</li> </ul> <p><b>B. Goal Follow-up:</b> Follow-up on participants’ goals and plans from the Spring '99 maintenance session:</p> <p><b>Q/A</b> (Potential questions):</p> <ul style="list-style-type: none"> <li>☛ “After hearing about the role of diet in breast and colorectal cancer (Spring '99) I decided to increase the variety of low-fat foods I eat by..” (Examples: adding a fruit to my breakfast, by preparing a meatless meal ___ days a week, etc.)</li> <li>☛ “To increase (or maintain) my awareness of what I eat, I decided to make the following changes....” (Examples: increase the number of days I keep track, try a new tool, record some of my higher-fat days, etc.).</li> <li>☛ “To increase (or maintain) my attendance at group meetings, I decided to take the following steps....” (Examples: identify other group sessions I can attend when I go out of town, etc.).</li> <li>☛ How did you use the resource handout -<i>Cancer Tests Checklist for Women</i> to help you implement a cancer screening plan?</li> </ul> <hr/> <p><b>Peer Group Sharing:</b></p> <p><b>Purpose:</b> Provide interest in and support of peer group activities.</p> <ul style="list-style-type: none"> <li>☛ During the past 3 months what types of activities have you done with other members of WHI and how have they helped you maintain your interest?</li> </ul>



*Notes*

	NEW MATERIAL (60-70 minutes)
(5 minutes)	<p><b>1. Overview/Introduction</b></p> <p>A. Point out that the last few maintenance sessions have focused on the importance of a low-fat, plant-based diet for better health. Two important characteristics of this type of eating pattern are meals that feature more vegetables, grains, beans and legumes and meals that contain little or no meat.</p> <p>B. <u>Optional Ice Breaker Activity</u>: Ask participants to think about what their dinner plates would look like if they were eating a <i>meatless meal</i> (What dishes or foods would be on their plates?). If participants have never eaten a meatless meal, ask them to estimate how much of their dinner plate would usually be occupied by 'meat' (red meat, poultry, fish) vs. how much space would be occupied by plant-based foods, such as vegetables, grains, and fruits. (Optional worksheet, page 18).</p> <p>C. Point out that there are a number of choices available for meatless meals; however, soy is one that many Americans use infrequently.</p> <p>D. Mention that the Summer session will look at the following:</p> <ul style="list-style-type: none"> <li>• Provide some reasons to use soy in a low-fat eating pattern.</li> <li>• Answer questions about soyfoods, such as: <i>What kinds of foods are considered soyfoods? Where do I find them? What do soyfoods taste like? and How do I use them in my meals?</i></li> <li>• Provide time to taste and explore soyfoods and other meatless alternatives.</li> </ul>

(10-12  
minutes)

## 2. Why Add Soy to Your Meals?

**Objective:** Learn how soyfoods add variety and may provide additional health benefits to a low-fat eating pattern, such as WHI.

**Purpose:** Provide information.

**Note:** Nutritionists need to support the message that no food (i.e., soy) or food component (i.e., isoflavones) should be considered a "miracle food." Have participants look at soyfoods as a way to increase food choices, variety, and nutrition in a low-fat eating pattern.

- A. Variety and Nutritional Benefits. Point out that the main reasons for adding small amounts of soyfoods to the WHI eating pattern is to increase an individual's variety of food choices and nutritional benefits. Plant foods, such as soy are:
1. Excellent sources of protein.
  2. Rich in calcium, iron, zinc and many of the B vitamins.
  3. An excellent source of essential fatty acids.
  4. Contain no saturated fat and are low in total fat and dietary cholesterol.
  5. Sources of phytochemicals that may turn out to be very important in preventing disease. All plant foods contain phytochemicals, but some plant foods contain more than others. So it's important to eat a wide variety (e.g., vegetables, fruits, and legumes such as soy).
- B. Other Potential Health Benefits?
1. Acknowledge that there has been a lot of publicity about soyfoods and their potential benefits in reducing the risk of heart disease, cancer, osteoporosis and menopausal symptoms, such as hot flashes.
  2. However, point out that while the evidence is encouraging, participants need to remember that the scientific data is still preliminary.
  3. Explain that scientists believe that the health benefits from soyfoods may be due to compounds called phytoestrogens. Currently scientists have identified at least 20 compounds in about 300 plants that are referred to as phytoestrogens.
    - a) Phytoestrogens function like estrogen because their chemical structure is similar to the body's own estrogens. This allows them to bind to the estrogen receptors.
    - b) Phytoestrogens are thought to function both as weak estrogens and as anti-estrogens. This dual function may be why they have such a range of health effects.
    - c) Soyfoods and other legumes contain one of the most active types of phytoestrogens, called isoflavones.

C. Briefly summarize some of the potential health benefits of soy being studied:

1. May help reduce cancer risk:

a) **Potential Evidence:**

1) Evidence for the protective role of soy in cancer comes from epidemiological studies. Countries where soy is the main source of protein (i.e., Japan and China) have relatively low rates for breast and prostate cancers. One reason may be the large amounts of soyfoods eaten in these countries. But, as with all observational studies, it is very difficult for researchers to determine whether this is due to the soy itself or another aspect of diet or lifestyle that is associated with a high-soy intake.

b) Point out that results from the epidemiological studies are mixed. If anything, soy seems to have a stronger protective role in premenopausal than postmenopausal women. Currently, the role of soy in the prevention of breast cancer is unproven.

c) **Possible Mechanism:**

1) Researchers believe that there are substances in soyfoods that may help to delay the growth of cancer cells. Animal models indicate that the isoflavone (genistein) in soy appears to decrease the number and size of tumor cells.

2) To date, there have been no intervention studies done with people.

**Nutritionist Note:**

a) The isoflavones found in soybeans are natural SERMs (selective estrogen receptor modulators). They act as both an estrogen and an antiestrogen. This is similar to the drug tamoxifen that has an estrogenic (beneficial) effect on the heart and bones but an antiestrogenic (potentially harmful) effect on breast tissues.

b) Concern has arisen that in some cases phytoestrogens may pose a cancer risk because the isoflavone (genistein) can stimulate proliferation of cells that have estrogen receptors. Thus, high intakes of isoflavones may be harmful to women with estrogen-receptor positive cancers.

c) If a participant is concerned, it is best to advise her to use non-soy meatless alternatives or limit her use of soyfoods to no more than one serving per day. However, she should avoid soy and isoflavone supplements.

2. May reduce heart disease:

a) Eating soyfoods instead of meat may help reduce blood cholesterol levels while providing the protein people need.

b) **Potential Evidence:**

1) A number of studies have shown that soy lowers blood cholesterol. A review of 38 human studies by Dr. James Anderson of the U. of Kentucky found that in 34 of the studies, the LDL 'bad' cholesterol and triglycerides decreased and HDL 'good' cholesterol increased when soy protein was used to replace animal protein.

2) However, the effect of eating soy protein is more pronounced in people with very high cholesterol levels (hypercholesterolemia). In addition, recent evidence suggests that soy protein and isoflavones must be eaten together to receive potential benefits. This needs more research, but would point to the importance of eating soyfoods versus taking supplements.

c) **Possible Mechanisms:**

1) To date, there is no agreement as to a mechanism for the cholesterol-lowering effects of soy, but there are a number of guesses: For example: enhanced reduction of LDL (bad) cholesterol; enhanced cholesterol excretion through bile acid production, and antioxidant effect of isoflavones.

3. May help reduce osteoporosis:

a) After the age of 30, bones stop growing and absorb less calcium. There is a decrease in bone formation and an increase in bone breakdown. It becomes very important to maintain levels of calcium in bones.

b) **Potential Evidence:**

1) There are four animal studies and two human studies that suggest the isoflavones in soyfoods may be beneficial in reducing the risk of osteoporosis.

c) **Possible Mechanisms:**

1) The isoflavones in soyfoods may slow down bone resorption, stimulate bone formation, or have an influence on both of these mechanisms.

2) In addition, soy protein is similar in quality to animal protein, but causes less calcium to be excreted in the urine.

3) Soyfoods, such as fortified soy milk, textured soy protein and tofu made with calcium salt are also good sources of calcium.



4. May reduce menopausal symptoms:

a) **Potential Evidence:**

- 1) The low incidence of symptoms among Japanese women and the estrogenic effects of isoflavones supported the idea that soy might help reduce the symptoms of menopause. However, only a handful of studies have been done on soy and menopause. Research is preliminary and inconsistent.
- 2) Some studies have reported that soy has little effect on the frequency of hot flashes, while other studies have indicated significant or modest reductions. Based on existing data, it is difficult to reach any definitive conclusions about the effects of soy intake on menopause symptoms.

b) **Possible Mechanism:**

- 1) Many menopausal changes are related to decreased estrogen production. Studies suggest that the isoflavones found in soyfoods help reduce menopausal symptoms in some women by acting like the estrogen replacement therapy.

D. Soy Supplements.

1. Point out that while using soy supplements might seem like the easiest solution, women should not load up on concentrated soy protein powders or take isoflavone supplements (pills) for some of the following reasons:
  - a) Pills do not provide all the additional health benefits provided by the food itself (e.g., vitamins, minerals, phytochemicals, fiber, etc.).
  - b) The soy and isoflavone supplements sold in health food stores provide significantly larger amounts of isoflavones than those used in research studies. Currently, scientists have no knowledge about the effects high doses of soy supplements in humans.
  - c) In addition, eating soyfoods may encourage a change in overall diet, while taking pills does not tend to change behavior.

E. Have the women begin to explore their current knowledge and experiences with soyfoods.



Notes

**(10 minutes) 3. Assessment: Acceptance of Soy and Other Meatless Alternatives**(Summer-1  
Worksheet)

Objective: Participants explore their willingness to include soy products and other meatless alternatives in their meals.

Purpose: Self-assessment: identification of motivators and barriers.

- A. Have participants look at Summer-1 Worksheet and share examples of soyfoods and other meatless alternatives that they have eaten.

Q/A (Potential question):

- ☛ What soyfoods (or meatless alternatives) do you currently eat, or have you tried?

- B. Ask participants how they currently feel about using soyfoods. (positive or negative thoughts and/or feelings).

Q/A (Potential question):

- ☛ How do you feel about using soyfoods, what thoughts (or feelings) come to mind?

- C. Ask the women to share their thoughts on what would make it easier for them to use soyfoods in their meals. For example: information about preparation, storage, cost, how to use in meals, etc.).

- ☛ What type of information would help you include more soyfoods or other meatless alternatives in your meals?
- ☛ What do you think interferes with your willingness or ability to use soyfoods or other meatless alternatives in your meals?

- D. Use the information gathered in this discussion to 'personalize' the actual skills practice segment of the session. Focus the group's activities around those areas where participants want and need more skills practice.

*Notes*

(35 -45  
minutes)

Participant  
Resources—  
Soyfood  
Fact Sheets

Summer-2  
Worksheet

#### 4. Skills Practice: Buying, Preparing and Tasting Meatless Alternatives

Objective: Participants practice using and tasting recipes and food products that use soy or other meatless alternatives.

Purpose: Provide 'hands-on' experiences to promote self-efficacy and self-management.

The following soyfood *Fact Sheets* are available in participant session materials: soy meat alternatives, tofu, soy flour, whole soybeans, soy milk, textured soy protein, tempeh, and miso.

**Note:** Skills Practice and Food Tasting segments are combined. Use one of the suggested ideas and recipes listed below or substitute soyfoods and soy recipes that would be acceptable to the women in your region.

The key areas to address during the skills/practice segment include:

- Availability and cost of soyfoods
- Appearance of soyfoods
- Preparation and taste of soyfoods
- Other meatless alternatives, if soy is unacceptable

Suggested Activities: (Select one of the suggested activities or develop your own).

A. **Soy Recipe Sharing:** If you have a number of participants who are familiar with soyfoods, contact them ahead of the session and ask them to bring in their favorite soy recipe and/or soy dish to share.

B. **Soyfood Fair:**

1. Provide a display of soyfoods and recipes to sample. Select soyfoods/products that are available in your local area. Use sample display card on page 16 (or similar card) to provide information about:
  - a) Name of soyfood and sample of product, if possible.
  - b) Where to find the soyfood in your area (e.g., grocery store-dairy section, natural food store, Asian market, food cooperative, etc.)
  - c) Approximate cost range of soyfood (optional).
2. Have samples of the soyfoods/recipes available for tasting.
3. Have each participant complete Summer-2 Worksheet (or use an index card) to evaluate the foods or recipes she samples.
4. Ask each participant to share her ratings and comments as part of the Goal Setting/ Implementation of Plan segment.

**C. Hands-on Food Preparation:**

1. Let participants prepare some easy meatless dishes that use soyfoods or other meatless alternatives. (See suggestions for 'mini cooking stations' listed below, or provide your own ideas).
2. Have 2-3 mini cooking stations. Provide each station with a quick/easy soy recipe and equipment to prepare the dish.
3. Have participants work in small groups and prepare a dish that they will share with other group members.
4. Have each participant complete Summer-2 Worksheet (or use an index card) to evaluate the foods or recipes she samples.
5. Ask each participant to share her ratings and comments as part of the Goal Setting/ Implementation of Plan segment.

Suggestions for the 'Mini Cooking Stations': (Recipes included in participant session materials).


- Recipe: *Tofu Fruit Smoothie* or *Poppy Seed Dressing*  
Equipment: Electric blender, rubber scraper, measuring cup & spoons.
- Sandwich Choices: *Meatless Burger* (i.e., *Grillers*, *Bocca Burger*, or *Garden Burger*), or *Soy-based Bacon, Lettuce and Tomato Sandwiches* (*Morningstar Farms*).  
Equipment: Electric skillet, nonstick spray, and spatula.
- Recipe: *Savvy Sloppy Joes*  
Equipment: Electric skillet, nonstick spray, spatula.
- Recipe: *Miso Soup* or *Tomato Jalapeño Soup*  
Equipment: Saucepan, stove top or hot plate.

Supplemental Idea:

Have a selection of cookbooks that feature soy and/or vegetarian recipes. See suggested list of cookbooks on page 14.



Notes

	<b>GOAL SETTING/IMPLEMENTATION OF PLAN (15 minutes)</b>
(15 minutes) Summer-2 Worksheet	<p><u>Objective:</u> Participants identify a specific way that they plan to include soyfoods in their WHI eating pattern.</p> <p><u>Purpose:</u> Goal setting, verbal contracting.</p> <p>A. Ask participants to look at their evaluation index card or Worksheet Summer-2 (Decision to Use Sheet) and share their thoughts and impressions about the following areas:</p> <p><u>Q/A:</u></p> <ul style="list-style-type: none"> <li>☛ What soyfoods or soyfood recipes did you like?</li> <li>☛ Where do you think you could add soyfoods to your current meals or snacks?</li> <li>☛ If you didn't like any of the soyfoods, what other meatless meal choices could you use?</li> </ul>
 <i>Notes</i>	