

The Dysglycemia Diet

To more fully understand why we have designed this program, it is helpful to know a little about the biochemistry of blood sugar. Blood sugar, or serum glucose, is often measured with routine blood work at the doctor's office. Glucose is the basic fuel all cells in your body use to make energy. Although it is measured in the blood, glucose can only be put to work and transformed into energy once it is in the cells, not when it is circulating in the bloodstream. It might be helpful to consider the bloodstream as the highway, and the cells as the factory. Glucose is the raw material that must be transported along the highway to the factory to be put to use.

In an optimal state, the body maintains the blood glucose level in a fairly narrow range. The range is neither too low (which is called hypoglycemia), nor too high (called hyperglycemia). Stability of blood sugar is important, because imbalances, particularly elevated levels, can cause serious health problems. Chronically elevated blood glucose levels result in the development of diabetes, which can lead to severe complications such as blindness, kidney failure, and heart disease.

To remain healthy, the body does all it can to maintain blood sugar levels within this normal optimal range. It achieves this stability through the secretion of a hormone called insulin. Insulin is the vehicle that allows glucose to be transported from the blood stream into the cells. A complete inability to secrete insulin, which occurs in juvenile onset diabetes, drastically increases glucose levels in the bloodstream. As we've said, glucose can't get into the cells without insulin. For this reason, juvenile onset diabetics need to take daily injections of insulin.

Fortunately, most people have the ability to produce insulin. Recent research has found, however, that in many individuals insulin is not working as efficiently as it should. Essentially, the cells don't respond to the insulin "signal" to allow glucose to move from the bloodstream into the cells. Because the body tries to keep blood sugar in a normal range, its first response to the cells' failure to get the message is to secrete more insulin. As an example, if you were knocking on someone's door and you knew the person was home, your normal response, if he or she didn't open the door, would be to knock again, only louder. This is essentially what the body does. It "knocks louder" by secreting more insulin because the cell did not respond to the first signal. This condition, which has been called insulin resistance, can be measured in the blood in the form of high insulin levels.

Producing more insulin may be beneficial in the short run, because it prevents blood glucose levels from becoming elevated. The resulting higher circulating insulin levels (hyperinsulinemia), however, can have repercussions in the long run. Insulin is a hormone with a variety of activities and insulin elevations can cause problems in various organ systems. Elevated insulin levels are considered a significant risk factor for adult-onset diabetes, hypertension, and heart disease. Elevated insulin may also be associated with weight gain and difficulty with losing weight, other blood sugar problems such as hypoglycemia, and some menstruation-related imbalances.

What causes this problem of increased insulin levels? It is always a combination of heredity and environment. Certainly, genes play a role in predisposing people to this problem, but our lifestyle—the way we treat our genes—also has a profound and often overriding influence. The standard American diet, high in simple sugars, processed foods, and saturated fats is at least partly to blame. In addition, a significant amount of research suggests that certain vitamins, minerals, and other phytonutrients in foods can improve the body's sensitivity to insulin. That is, they improve the efficiency of insulin, so the body needs to secrete less of the hormone to achieve the same effect.

Accompanying this overview, you will find dietary guidelines, pre-planned menus, and other important information that will get you off to a successful start. You may find this new eating plan a change from your normal eating habits. However, the suggestions are not difficult to implement. With preparation and planning, you should be able to integrate the program into your lifestyle effectively and efficiently.

Overview of the Dysglycemia Diet

In the following pages you will find dietary instructions for the program. Briefly, the general dietary guidelines are based on foods that do the following: First, they produce only a low insulin response. In other words, these foods do not stimulate a large release of insulin from your pancreas. For example, legumes, proteins, and certain vegetables, cause a very small insulin release, and sugars, candy and sweets, (which are omitted completely), trigger a large release of insulin. Second, the foods that are included may improve the body's ability to utilize insulin. Both fish and flax, rich in *Omega 3* oils, are included and tend to improve insulin utilization. Saturated fats, which are limited, inhibit the ability of the body to use insulin.

The chart provides a quick overview of the dietary plan. If you have questions about any food, check to see if it is on the food list. Make substitutions only as outlined in these instructions or recommended by your health care provider. You should, of course, avoid any foods to which you know you are intolerant or allergic.

For your convenience in getting started, we have included two easy ways to apply the program: First, we have included two sample menu plans, one for a calorie program of approximately 1300 and the other for a program of 1600 calories per day. You can therefore follow the menus provided knowing that you are eating the right foods and right amounts without having to do any calculations. This is often the easiest and simplest way to start, and how many people begin. As you gain experience with the program, you may want to simply make up your own meals, choosing foods from the specific food groups in the chart as directed. Remember, if you choose from the food category list, stay within the servings and amounts circled by your healthcare provider. He or she will choose the number of servings from each food group that is appropriate for you in achieving your health goals. Second, because not everyone needs to be on a specific 1300 or 1600-calorie program, we have provided a chart designed to fit the program to you. In order to follow the dietary program at various calorie levels, the chart below may be used to determine the servings per category for various levels. These are averages, of course, but still may be used to develop an individualized meal plan.

A word about calories: We have limited the caloric intake on the menus, in the event that weight loss is one of your goals. Balancing insulin levels is important in any weight loss program you undertake. If weight loss is not a goal, or once you have reached your weight goal, you may use the list provided, and with the help of your healthcare provider, choose the amounts and portions that are most appropriate. This program has been used this program in overweight individuals without prescribing specific calorie restrictions. Because the foods in the program tend to be much more filling, people naturally tend to eat fewer calories. Therefore the program does not seem to trigger overeating, and portion sizes are left up to the individual, with the exception of two categories: (1) nuts – a handful only/day is suggested; (2) grains – 1 or 2/day from the list provided usually needs to be maintained. How to proceed with a specific predetermined caloric level or not-is best left up to a decision between you and your health care provider.

Servings per Day (at Varying Calorie Levels)

Type of Food	1300 calorie	1600 calorie	1800 calorie	2000 calorie	2200 calorie	2400 calorie
<i>Protein shake</i>	2	2	2	2	2	2
Legumes	1	2	2	2	3	3
Category 1 Vegetable	unlimited	unlimited	unlimited	unlimited	unlimited	unlimited
Category 2 Vegetable	1	1	1	2	2	2
Concentrated Protein	2	3	3	3	3	4
Oil	4	4	6	6	6	7
Nuts and seeds	1	1	1	2	2	2
Fruit	2	2	3	3	3	3
Dairy	0	1	1	1	1	2
Grain	1	1	1	1	2	2

Important Guidelines of the Functional Body Composition Dietary Program

As an overview of this program, these are the important guidelines to keep in mind.

1. **Eat a serving (3 ounces) of fish 2-3 times a week. If you are a vegetarian, or if circumstances prevent you from eating fish, consume 1 Tablespoon of flax oil above the normal servings suggested.** Flax oil is found in the refrigerated section of any health food store. Certain types of fish and flax oil are high in *omega-3 fatty acids*, a type of fat that is highly beneficial for helping to restore normal insulin sensitivity.
2. **Beef, pork, and veal are not allowed, as they are higher in saturated fat.** Protein sources that are low in saturated fat include legumes (**beans, peas, and lentils**), eggs, chicken, turkey, wild game, and low fat dairy. Try to include one vegetarian meal daily consisting of legumes, eggs and low fat yogurt or cottage cheese. Legumes contain significant amounts of fiber, which helps to lower the glucose and insulin response to meals.
3. **Do Not eat these starchy vegetables: potatoes and corn (including popcorn).** They cause a rapid increase in blood sugar. (Sweet potatoes and yams are okay.) Be sure to include several servings daily of vegetables, both yellow and green. Most vegetables are low in calories and have a minimal effect on blood sugar.
4. **Do not eat saturated fat or processed foods that have on their labels “hydrogenated or partially hydrogenated vegetable oils.”** These fats have a negative effect on how the body uses insulin. Certain fats in the diet actually help to lower the blood sugar rise caused by carbohydrates. Each meal should contain a healthy fat source from nuts and seeds or oils as listed. Use to dress salads, vegetables or grains. Avocado and olives are delicious ways to add healthy fats.
5. **Use olive, sesame, or canola oil for cooking and flax oil for homemade salad dressings.** These fats favorably impact your cells’ ability to use insulin. Your handout contains a dressing recipe. (*Never cook with flax and be sure to refrigerate flax oil and any dressings you make with it.*)
6. **Eat mixed meals or snacks of protein, carbohydrate and fat** (use the provided menus as a guide). While carbohydrates eaten alone will often cause an increase in the insulin response, when eaten as part of a mixed meal, this response is generally lower. The only carbohydrate that may be eaten alone is a piece of *whole fresh* fruit. The fruits listed in the food guide have been selected because they do not elicit a high insulin response. During the first week of this program, you may experience sugar cravings as your body is withdrawing from the refined sugars usually in your diet. It can be very helpful to eat extra fruit to get you through this difficult time. When the cravings have abated, it is wise to limit fruit to 2-3/day, depending on your caloric regimen.
7. **Do Not eat refined carbohydrates/simple sugars.** Again, these are foods that cause a rapid rise in insulin.
8. **Drink adequate amounts of liquids, including:** water, seltzer, mineral water, herbal, decaffeinated, or green tea or coffee. A modest amount of caffeinated coffee or tea (1-2 cups/day) will not disrupt your program. No soda pop is allowed.
9. **A powdered protein based nutritional supplement** that is low in glycemic load (approximately 150 calories/serving may be included in your program. This is often useful as a meal or snack replacement.

Food List

<p>Legumes: average serving = ½ cup or as indicated Servings: __ servings per day (1 serving = 110 calories)</p> <ul style="list-style-type: none"> • Yellow & green split peas, or red & green lentils • Beans – garbanzo, pinto, fat-free refried, kidney, black, lima, cannellini, navy, mung • green soy beans, 1/3 cup • sweet green peas, ¾ cup • Hummus (1/4 cup) • Bean soups, ¾ cup 	<p>Nuts and Seeds: <i>serving size as indicated</i> Servings: __ per day (1 serving = 100 calories)</p> <ul style="list-style-type: none"> • Almonds, or hazelnuts, 10-12 whole nuts • Walnut or pecan halves, 7-8 • Cashews, 7-8 • Peanuts, 18 nuts or 2 Tbsp. • Pistachios, sunflower, pumpkin, or sesame seeds, 2 Tbsp. • Nut butter, 1 Tbsp. made from above nuts 				
<p>Category 1 Vegetables: (½ c serving = 10 calories) Servings: Unlimited</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; vertical-align: top;"> <ul style="list-style-type: none"> • Asparagus • Artichokes • Bamboo shoots • Bean sprouts • Bell or other peppers • Broccoli • Brussels sprouts • Cauliflower • Celery • Cucumber </td> <td style="width: 50%; vertical-align: top;"> <ul style="list-style-type: none"> • Eggplant • Green beans • Mushrooms • Okra • Radishes • Snow peas • Sprouts • Tomatoes • Water chestnuts, 5 whole • Zucchini, yellow summer, or spaghetti squash </td> </tr> </table> <p>• Cabbage – red, green, Chinese • Chives, onion, leeks, garlic • Greens: bok choy, escarole, Swiss chard, kale, collard greens, watercress, spinach, dandelion, mustard, or beet greens • Lettuce/mixed greens – romaine, red and green leaf, endive, spinach, arugula, radicchio, watercress, chicory</p>	<ul style="list-style-type: none"> • Asparagus • Artichokes • Bamboo shoots • Bean sprouts • Bell or other peppers • Broccoli • Brussels sprouts • Cauliflower • Celery • Cucumber 	<ul style="list-style-type: none"> • Eggplant • Green beans • Mushrooms • Okra • Radishes • Snow peas • Sprouts • Tomatoes • Water chestnuts, 5 whole • Zucchini, yellow summer, or spaghetti squash 	<p>Fruit: _____ servings per day (1 serving = 80 calories)</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; vertical-align: top;"> <ul style="list-style-type: none"> • Apple, 1 med • Apricot, 3 med • Berries: blackberries & blueberries, 1 cup; • raspberries & strawberries, 1 ½ cups • Cherries, 15 • Fresh figs, 2 • Grapes 15 • Grapefruit 1 whole </td> <td style="width: 50%; vertical-align: top;"> <ul style="list-style-type: none"> • Kiwi, 2 • Mango ½ • Melon: cantaloupe, ½ med, honeydew, ¼ small, 1 slice • watermelon • Nectarine, 2 small • Orange, 1 large • Peach, 2 small • Pear, 1 med • Plum, 3 small • Tangerine 2 small </td> </tr> </table> <p>Dairy: average serving size = 6 oz. Servings: __ servings per day (1 serving =80 calories)</p> <ul style="list-style-type: none"> • Lowfat or fat free yogurt, plain, 4 oz (fruit juice sweetened yogurts will also use 1 fruit serving) • Soy milk, low fat, plain • Buttermilk 	<ul style="list-style-type: none"> • Apple, 1 med • Apricot, 3 med • Berries: blackberries & blueberries, 1 cup; • raspberries & strawberries, 1 ½ cups • Cherries, 15 • Fresh figs, 2 • Grapes 15 • Grapefruit 1 whole 	<ul style="list-style-type: none"> • Kiwi, 2 • Mango ½ • Melon: cantaloupe, ½ med, honeydew, ¼ small, 1 slice • watermelon • Nectarine, 2 small • Orange, 1 large • Peach, 2 small • Pear, 1 med • Plum, 3 small • Tangerine 2 small
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<p>Concentrated Protein Sources: __servings per day, including 1 serving fish per day (3 oz = 1 serving = 140-165 calories) Meat, poultry, and fish should be grilled, baked, roasted, and fish can also be poached</p> <ul style="list-style-type: none"> • Eggs, 3 egg whites plus 1 whole egg or 2 whole eggs • Egg substitute, 2/3 cup • Fish, including shellfish, 3 oz fresh or ¾ cup canned • Poultry: chicken or cornish hen (breast), turkey, 3 oz • Leg of lamb, lean cut, 3 oz • Lowfat cottage cheese, ¾ cup • Ricotta, part skim or nonfat, ½ cup • Mozzarella, part skim or nonfat, 2 oz. or ½ cup (shred) • Tofu (fresh), 8 oz or 1 cup • Baked Tofu, 3.5 oz cube • Tempeh, 3 oz or ½ cup • Parmesan cheese, 2 Tbsp grated = 1/3 serving • TVP (soy protein concentrate), 1/3 c dry = ½ serving 	<p>Whole Grains: Servings: __ per day (1 serving =75-100 calories) (Grain servings are measured after cooking)</p> <ul style="list-style-type: none"> • Amaranth, teff, and quinoa, ½ cup • Basmati and other brown rice, ½ cup • Wild rice, ½ cup • Buckwheat groats, ½ cup • Bulgur (cracked wheat), 2/3 cup • Whole barley, ½ cup • Grape Nuts cereal, 4 Tbsp • Millet, 1/3 cup • Whole oats, raw, 1/3 cup; oatmeal ¾ cup • Whole wheat, spelt or kamut berries, ½ cup • 100% whole wheat, spelt, or kamut pasta, ½ cup • Whole grain rye crackers, 3 each (e.g. Ryvita, Sesame Rye, WASA, Lite Rye or Fiber Wheat) • Bread: mixed whole grain or 100% whole rye, 1 slice • Whole wheat tortilla or pita, ½ 				
<p>Category 2 Vegetables: Servings: __ per day (1 serving = 45 calories) - not to be eaten at same meal as whole grains</p> <ul style="list-style-type: none"> • Carrots, raw: 2 med. or 12 baby; 2/3 cup cooked • Rutabaga, parsnips, turnips, 1/3 cup cooked • Beets, 2/3 cup cooked • Sweet potatoes or yams, ½ small baked • Acorn or butternut squash, 1/3 cup cooked 	<p>Oils: average serving size = 1 tsp. Or as indicated Servings: __ teaspoons per day (1 teaspoon = 40 cal.)</p> <ul style="list-style-type: none"> • Flax seed oil (keep refrigerated) • Expeller pressed olive, canola and sesame oils • Mayonnaise made with canola oil • Ripe or green olives, 8 –10 medium • 1/8 avocado 				
<p>Beverages: Servings: Unlimited (0 calories per serving) Decaffeinated or herbal tea, decaffeinated coffee, water, seltzer, plain or flavored A modest amount of caffeinated coffee or tea (1-2 cups/day) and beer or wine (1drink daily) will not disrupt your program. However, for the later, one should take into account the extra calories consumed.</p>	<p>Condiments: Servings: Unlimited (<10 calories per serving) Cinnamon, carob, mustard, horseradish, tamari soy sauce, vinegar, lime, lemon, flavored extracts (e.g., vanilla or almond), herbs/spices</p>				

Sample Menus
1300 calorie dietary program
Day One

*An * indicates that recipe is included.*

Breakfast	Protein shake
Morning Snack	1 ripe pear and 2 Tbsp. pumpkin or sunflower seeds (servings:1 fruit and 1 nut)
Lunch	1 cup of black bean soup (Hains or Nile Spice® - quick and easy) ½ sandwich: 3 oz roast turkey breast on 1 slice 7 grain bread with 1 tsp canola mayonnaise, or 1 Tbsp. tofu mayonnaise *, lettuce and sliced tomato 1 cup fresh blueberries <i>Vegetarian Option</i> ¼ cup hummus in 1 small whole wheat or low carbohydrate tortilla or 2 Ryvita crackers, with 1/8 avocado, diced, lettuce and sliced tomato ¾ cup cottage cheese and 1 cup fresh blueberries (servings: 1 legume, 1 grain, 1 protein, 1 oils, 1 fruit)
Afternoon Snack	Protein shake
Dinner	3 oz broiled salmon (Vegetarian option: grill or broil 3 oz tempeh, marinated in soy) 1 cup steamed asparagus (approx. 8 spears) ½ medium baked sweet potato Salad: 1-2 cups mixed greens, ¼ cup each raw broccoli and cauliflower, 1/2 stalk diced celery, 1/2 medium tomato, with 1 Tbsp. flax oil dressing. * (1 protein, 2 oils, 1 category 2 vegetable, free veggies)
Evening Snack	Vegetable salsa dip: 1/3 cup salsa with 1 whole cucumber, ½ cup each: raw green beans, and sliced red peppers (servings: free veggies)

Flax/Olive Oil Salad Dressing

1/2 cup olive oil (or 1/4 cup each flax and olive oils)
3 Tbsp. balsamic vinegar (any vinegar is fine but this has the richest flavor)
2-3 Tbsp. water
1 tsp. Dijon mustard
1-3 cloves fresh garlic (use either whole pieces for flavor or crushed for a stronger taste)
Salt and pepper to taste
Oregano, basil, parsley, tarragon or any herbs of your liking, fresh or
dried (oregano and basil are typical of Italian dressings)

Put vinegar, water, and mustard in a jar that has a secure lid and shake well to thoroughly
dissolve mustard. Then add oil and remaining ingredients and shake well again.
Store in refrigerator and shake well before using. It will harden when refrigerated and will
need 5-10 minutes at room temperature to re-liquify.
(Amounts are approximate - you may wish to use more or less of certain
ingredients to your personal taste). 1 Tbsp = 1 oil serving

Tofu Mayonnaise (serves 32, 1 Tbsp each)

1/2 pound tofu
1/4 cup lemon juice
1/2 cup safflower oil
1/2 tsp. sea salt
1 tsp. dry mustard
Blend in blender till thick. Store in refrigerator...1/2 may be frozen. (1 oil)

Optional dressing:

Creamy Vinaigrette Dressing

Mix equal amounts of flax oil dressing and creamy low-fat ranch-type dressing* for a delicious change.

Creamy Low Fat Ranch-Type Dressing (serves 8)

3/4 cup low-fat or non-fat, plain yogurt
 1/4 cup buttermilk
 1 Tbsp. grated onion
 1 tsp. vegetable seasoning mix (adjust to taste)
 pinches of oregano, cayenne
 1 Tbs. lemon juice

Combine all ingredients in a bowl and stir with a fork. (Yogurt and buttermilk-based sauces will thin out if mixed in blender or food processor). Refrigerate any leftovers. Makes about 1 cup. (2 tbsp. serving – free)

Day Two**Breakfast** Protein shake**Snack** 12 baby carrots, 1-2 stalks celery stuffed with 1 Tbsp. almond butter
(servings: 1 category 2 vegetable, free veggies, 1 nut)**Lunch** Large tossed salad: 2 cups shredded mixed greens, 3 oz. white tuna, **(Vegetarian option:** substitute 2 hard boiled eggs for tuna) ½ cup each garbanzo or kidney beans, raw broccoli and cucumber slices, ½ medium tomato, and ¼ cup snow peas with 1 Tbsp. Flax Oil Dressing. *
1 large orange
(servings: 1 legume, 1 protein, 2 oils, 1 fruit)**Afternoon Snack** Protein shake**Dinner** Chicken vegetable stir-fry: 3 oz chicken breast, cut into strips; **(Vegetarian option:** substitute 8 oz. cubed tofu for chicken) ½ cup each: asparagus chunks, and red or green pepper strips; ¼ cup sliced onion, and 1 clove minced garlic. Stir-fry with 1 tsp. olive oil and fresh minced ginger; add soy sauce, salt and pepper to taste. OR 1 serving Fish Creole*
½ cup cooked brown basmati rice OR spaghetti squash
1 serving Peach /Apricot Frothy*
(servings: 1 protein, 1 oil, free veggies, 1 grain, 1 fruit)**Evening Snack** Veggie sticks -- cucumber and celery dipped into salsa (servings: free veggies)**Fish Creole (serves 4)**

1 Tbsp. olive oil
 1 onion, chopped
 ½ cup thin sliced celery
 ¼ cup chopped green pepper
 1 garlic clove, minced
 2 Tbsp. fresh parsley (2 tsp. dried)
 1 bay leaf
 ¼ tsp. rosemary, crumbled
 1 28-ounce can tomatoes with liquid
 1 pound fish fillets
 2 cups cooked brown rice

Heat oil in a large saucepan and lightly sauté the onion, celery, pepper and garlic until soft. Add parsley, bay leaf, rosemary and tomatoes. Simmer, uncovered about 20 minutes. Add fish fillets in small pieces and simmer until cooked through, about 5-10 minutes more. Remove bay leaf. Serve over brown rice or spaghetti squash.
(servings: 1 protein, 1 grain, 1 oil)

Peach/Apricot Frothy (serves 8)

2 envelopes unflavored gelatin
 2 Tbsp. apple juice concentrate**
 6 Tbsp. water
 7 cups sliced fresh peaches or apricots (or substitute fruit canned in its own juice)
 2 tsp. lemon juice

In small mixing bowl, soften gelatin in apple juice concentrate mixed with 6 Tbsp. water. Put peach or apricot slices in blender and blend until they become liquid. Bring to boil and add to gelatin; stirring until thoroughly dissolved. Stir in lemon juice. Chill until it begins to thicken. Beat on high speed with mixer until fluffy and doubled in volume. Chill again. Mound into 8 sherbet glasses or serve from glass serving bowl. (servings: 1 fruit)
** While fruit juice is generally not allowed on this program, the amount contained in this recipe is insignificant.)

Day Three

Breakfast Protein shake
Morning Snack 1 medium apple, sliced and topped with 1 Tbsp. cashew butter
(servings: 1 fruit, 1 nut)
Lunch 1 serving Lentil-Barley Stew *
Celery and cucumber sticks
(servings: 1 legume, 1 grain, 1 category 2 vegetable, free veggies)
Afternoon Snack Protein shake
Dinner 5 oz. baked or broiled snapper or halibut (**Vegetarian option:** substitute 5 oz. baked marinated tofu for fish)
Tossed Salad: 1-2 cups mixed greens, ¼ cup each raw red or green pepper, radishes and cauliflower, ¾ cup cherry tomatoes, topped with 2 Tbsp. parmesan cheese and tossed with 1 Tbsp. Flax Oil Dressing. *
1 serving Sautéed Cabbage and Fennel*
OR Stir-Fried Eggplant and Tomatoes*
(servings: 2 protein, 3 oil, free veggies)
Evening Snack 1 ½ cups fresh sliced strawberries
(servings: 1 fruit)

Lentil -Barley Stew (serves 6)

2 Tbsp. olive oil
4 medium carrots, diced
2 medium leeks (with 3 inches of green left on), diced
2 celery stalks, diced
2 medium zucchini, diced
1 large onion, diced
2 cloves garlic, minced
1 cup dried lentils, rinsed
½ cup barley, rinsed
1 tsp. dried thyme
6-8 cups chicken or vegetable broth
2 cups diced tomatoes
1 cup chopped fresh basil leaves
salt and pepper to taste
½ cup chopped parsley

Heat olive oil in a large heavy pot and add carrots, leeks, celery, zucchini, onion and garlic. Cook over low heat, stirring occasionally, for about 10 minutes until vegetables have softened.
Add lentils, barley, thyme, and 6 cups broth. Bring to a boil and reduce heat to a simmer. Cook uncovered about 30 minutes, stirring often. Add remaining 2 cups of broth as needed if dry. Add tomatoes, basil, salt and pepper to taste and cook 10 more minutes. Stir in parsley and serve.
(servings: 1 legume, 1 grain, 1 category 2 vegetable, 1 oil, free veggies)

Sautéed Cabbage and Fennel (serves 4)

1 Tbsp. olive oil
2-3 cloves garlic, minced
½ cup thinly sliced fresh fennel or 1 Tbsp. fennel seeds
4 Tbsp. minced shallots
4 cups shredded green cabbage
2 Tbsp. freshly grated Parmesan cheese (for dairy-free, substitute sesame seeds)

In a heavy skillet or wok, stir-fry all ingredients except Parmesan cheese. Continue for about 5 minutes until cabbage is still slightly crunchy. Sprinkle with Parmesan or sesame seeds and serve immediately.
(servings: 1 oil, free veggies)

Stir-Fried Eggplant and Tomatoes (serves 6)

1½ Tbsp. olive oil
1 eggplant, peeled and diced
1-2 stalks celery, sliced
1 medium onion, diced
2 medium or 4 plum tomatoes, coarsely chopped
½ cup balsamic or red wine vinegar
1 tsp. dried oregano
2 leaves fresh basil (or ¼ tsp. dried)
salt and pepper to taste

Heat olive oil in a wok or large skillet and stir-fry eggplant, celery, and onion over medium heat, for 7-10 minutes. Add remaining ingredients; cover and simmer for additional 25 minutes. Add salt and pepper to taste. Serve immediately. (servings: 1 oil, free veggies)

Day Four

Breakfast Protein shake

Morning Snack 3 Ryvita® crackers with 1 Tbsp. hazelnut or almond butter (servings: 1 grain, 1 nut)

Lunch 1 serving Autumn Bean Soup *

Tossed salad: 1-2 cups shredded mixed greens, 3 oz. leftover halibut

(Vegetarian option: substitute ½ cup shredded mozzarella or 3oz. marinated tofu cut into chunks)

¼ cup each raw broccoli flowerets, cucumber and tomato slices, sliced, tossed with 1 Tbsp. Flax Oil Dressing. * (servings: 1 legume, 1 protein, 2 oil, free veggies)

Afternoon Snack Protein shake

1 large orange or 2 small tangerines
(servings: 1 fruit)

Dinner

3 oz broiled chicken breast

½ small baked sweet potato

Stir-Fried Eggplant and Tomatoes *

1/2 cup steamed green beans and 1/2 cup mushrooms sautéed with 1 clove minced garlic in 1 tsp. olive oil

Vegetarian option: vegetarian omelet with 3 egg whites and 1 whole egg with above steamed green beans and mushrooms

(servings: 1 category 2 vegetable, 1 protein, 2 oil, free veggies)

Evening Snack 2 small plums

(servings: 1 fruit)

Autumn Bean Soup (serves 6)

2 cups white kidney beans (cannelloni)

1-2 cups kidney or red beans (canned or cooked from dry)

1 cup chick peas (garbanzos-canned or cooked from dry)

2-3 cups fresh spinach or escarole, washed, drained and chopped

OR 1 10-ounce package frozen chopped spinach

4 cups chicken or vegetable broth

2 onions, chopped

2 cloves garlic, minced

1 tsp. each dried basil and oregano

1 Tbsp. dried parsley

Pepper to taste

Parmesan cheese (optional)

Combine all ingredients and simmer until onions are soft, about 45 minutes. Garnish with optional Parmesan cheese. (servings: 1 legume, ½ optional protein)

Day Five

- Breakfast** Protein shake
- Morning Snack** 1 medium pear or 2 small nectarine and 8 walnut halves
(servings: 1 fruit, 1 nut)
- Lunch** ¾ cup Lentil Soup*
Spinach salad: 1-2 cups chopped spinach, 1 sliced hard boiled egg, ¼ cup each mung bean sprouts, chopped red pepper, diced beets (steamed), and grated carrot, ¼ cup sliced mushrooms, 4 cherry tomatoes, tossed with 1 Tbsp. Flax Oil Dressing. *
(servings: 1 legume, ½ protein, 2 oil, 1 category 2 vegetable, free veggies)
- Afternoon Snack** Protein shake
- Dinner** 5 oz. rainbow trout or bass (**Vegetarian option:** substitute 6 oz. tempeh or tofu for fish and stir-fry with vegetables)
1 serving Barley with Vegetables* or Mexican Quinoa*
1 cup steamed broccoli, red pepper, mushroom and onion stir-fried in 1 tsp. olive oil. Season to taste. (servings: 1 ½ protein, 1 grain, 1 oil, free veggies)
- Evening Snack** 15 cherries (servings: 1 fruit)

Lentil Soup (Serves 4)

2 cloves garlic, minced
1 medium onion, chopped
2 large carrots, sliced or chopped
2 stalks celery, chopped
2 quarts water or broth
pinch thyme or any preferred seasoning and salt to taste
1 ½ cups red and/or green lentils

Combine first 5 ingredients and bring to boil. Add seasonings and lentils. Reduce heat to medium-low and simmer covered 45 minutes to 1 hour, until lentils are soft. Puree half in the blender if you like a creamy soup. (servings: 1 legume)

Barley with Vegetables (serves 8)

1 cup pearl barley, washed
6 cups water
1 tsp. olive oil
1 small onion, finely chopped
1 small red, yellow, or green pepper, finely chopped
2 ripe tomatoes, finely chopped
½ cup parsley, finely chopped
salt and pepper to taste

Simmer barley in water for about 1 hour, until softened, then drain. Heat oil and sauté the onion and peppers until soft and slightly brown. Add the tomatoes and parsley and cook for 2-3 additional minutes. Combine vegetables with cooked barley and add salt and pepper to taste. (servings: 1 grain)

Quinoa Mexican Style (serves 6)

½ pound onions, chopped
1 tsp. minced garlic
½ Tbsp. olive oil
1 cup quinoa, rinsed twice in cool water
1 cup chicken stock
1 cup drained canned Italian plum tomatoes
1 cup tomato juice from canned tomatoes
½-1 whole jalapeno or serrano chili, seeded and chopped (optional)

2 Tbsp. chopped fresh coriander

Sauté the onion and garlic in hot oil in a large heavy-bottom pot. When onions are soft, add quinoa, chicken stock, plum tomatoes, tomato juice, and chili pepper. Bring to boil; reduce heat; cover and cook for about 10 minutes, until quinoa is tender. Sprinkle the coriander over quinoa mixture and serve. (1 grain)

Day Six

- Breakfast** Protein shake
- Morning Snack** 1 whole apple, sliced and 1 stalk celery, spread with 1 Tbsp. almond butter
(servings: 1 fruit, free veggies, 1 nut)
- Lunch** 1 serving Crustless Vegetable Quiche*
¾ cup black bean soup
(servings: 1 legume, 1 protein, 2 oil, free veggies)
- Afternoon Snack** Protein shake
2 raw carrots cut into sticks
(servings: 1 category 2 vegetable)
- Dinner** 4 oz. salmon, grilled (**Vegetarian option:** substitute ½ cup green soy beans or red kidney beans for fish, add to rice with 1 tsp. tamari and herbs of your choice)
1 cup steamed Brussels sprouts
½ cup brown basmati rice, topped with 1 tsp. flax or olive oil
Tossed salad: 1-2 cups shredded mixed greens, ¼ cup each raw bean sprouts, red pepper, cucumber and sliced tomato, and topped with 2 Tbsp. Creamy Low-Fat Ranch Dressing *
(servings: 1 protein, 1 grain, 1 oil, free veggies)
- Evening Snack** 1 serving Peach/Apricot Frothy* (servings: 1 fruit)

Crustless Vegetable Quiche (serves 6)

5 eggs
½ cup non-fat or 2% milk
12 ounces (¾ cup) non-fat or low-fat cottage cheese
½ cup grated part-skim mozzarella cheese
10 ounces frozen chopped broccoli, thawed
10 ounces frozen chopped spinach, thawed
1 Tbsp. olive oil
½ tsp. salt
¼ tsp. fresh ground pepper

Beat eggs in a medium sized bowl. Add milk and beat some more. Add remaining ingredients and stir vigorously to blend. Pour into a deep, lightly oiled casserole dish and place dish in a 9 x 13 inch pan filled part way with hot water. Bake in a 375 degree oven for about 35-45 minutes, or until a knife, inserted into quiche, comes out clean.
(servings: 1 protein, 1 fat)

Day Seven

- Breakfast** Protein shake
- Morning Snack** 1 cup mixed berries sprinkled with 2 Tbsp. chopped walnuts
(servings: 1 fruit, 1 nut)
- Lunch** 1 serving Turkey Stroganoff Skillet* or Turkey Bulgur Skillet*
Tossed salad: 1-2 cups shredded mixed greens, ½ cup each raw broccoli, cauliflower, and cucumber slices, ½ medium tomato with 1 Tbsp. Flax Oil Dressing*.
(servings: 1/2 grain, 1 protein, 2 oil, free veggies)
- Afternoon Snack** Protein shake
- Dinner** 1 serving Barley Minestrone Soup*
3 oz grilled or baked tuna or halibut
1 serving Red Pepper and Zucchini Sauté*
1 small baked sweet potato
(servings: 1 legume, ½ grain, 1 protein, 1 oil, 1 category 2 vegetable, free veggies)
- Evening Snack** 1 pear

(servings: 1 fruit)

Turkey-Bulgur Skillet (serves 4)

1 pound ground turkey
1 medium onion, chopped
1 clove garlic, minced
1 cup uncooked bulgur wheat
1 pound can tomatoes, including juice
1 cup water
¼ tsp. marjoram
½ tsp. thyme
2 bay leaves
1 ½ cups frozen peas, defrosted
salt and pepper to taste

In a large, heavy skillet over medium heat, sauté turkey, onion, and garlic until onion is softened. Drain off excess fat. Add bulgur and cook for one more minute, stirring. Then stir in tomatoes, water and spices. Cover and simmer for 20 minutes, occasionally stirring to break up tomatoes. Add peas and salt and pepper to taste. (**Vegetarian option:** omit turkey and sauté the onion and garlic in 2 tsp. olive oil. Add ¾ pound of cubed tofu to the skillet along with the bulgur.) (servings: 1 protein, 1 grain, ½ legume)

Turkey Stroganoff Skillet (serves 6)

1 pound ground turkey
12 ounces V-8 juice
12 ounces chicken broth
¾ cup water
½ cup lightly sautéed mushrooms
2 tsp. minced onion
1 tsp. dried parsley
1 tsp. Worcestershire sauce
½ tsp. thyme
1/8 tsp. pepper
¼ pound whole wheat, kamut, or spelt noodles, uncooked
1 cup (8 oz.) plain, non-fat or low-fat yogurt

In a large skillet, brown turkey. Stir in remaining ingredients, except yogurt. Bring to boil, cover and simmer 15 minutes. Stir in yogurt and serve immediately. (servings: 1 protein, 1 grain)

Barley Minestrone Soup (serves 8)

1 Tbsp. olive oil
1 medium or large onion, chopped
2 stalks celery, diced
3 carrots, sliced or diced
2 cloves garlic, minced
6 cups vegetable or chicken stock, (or 6 cups water and 6 tsp. powdered bouillon)
1 28-oz can tomatoes with juice
1/3 cup whole barley
1 bay leaf
1 16-oz can kidney beans, undrained
1 lb. fresh green beans, cut into 1 inch pieces or 1 10-oz. pkg. frozen cut green beans

In a heavy 6-quart pot, sauté onion, celery, carrot, and garlic until just softened. Add stock, tomatoes, barley and bay leaf. Bring to a boil and cover, reducing heat to a simmer for 50 minutes, stirring occasionally. Stir in kidney beans and green beans and simmer for 5-10 minutes more until all vegetables are tender. Remove bay leaf and serve. (servings: 1 legume, ½ grain)

Red Pepper and Zucchini Sauté (serves 4-6)

2 red peppers
2 zucchini

1 Tbsp. olive oil
1 clove garlic, crushed
salt and pepper to taste

Wash peppers and zucchini. Slice peppers into 1 inch strips; cut ends off zucchini, quarter lengthwise and cut into 1 inch pieces. Sauté zucchini in olive oil for 4-5 minutes until lightly browned and just soft. Add garlic and stir for 30 seconds; stir in peppers. Sauté for 3-5 additional minutes. Salt and pepper to taste. (servings: 1 oil, free veggies)

Sample Menus
1600 calorie dietary program
Day One

Breakfast Protein shake
Morning Snack 1 pear and 8 walnut halves
(servings: 1 fruit, 1 nut)
Lunch 1 cup of black bean soup
½ sandwich: 3 oz. roast turkey breast on 1 slice 7 grain bread garnished with
1 tsp canola mayonnaise, or 1 Tbsp. tofu mayonnaise*, lettuce and sliced tomato
(**Vegetarian option:** substitute ¼ cup hummus in ½ large pita or whole wheat tortilla with 1/8 avocado,
sliced, lettuce and sliced tomato)
1 cup fresh blueberries
6 oz. plain, non-fat or low-fat yogurt
(servings: 1 legume, 1 grain, 1 protein, 1 oil, 1 fruit, 1 dairy)
Afternoon Snack Protein shake
Dinner 3 oz. broiled salmon (**Vegetarian option:** substitute 3 oz. tempeh for salmon)
1/2 cup steamed spinach, topped with garlic sautéed in 1 tsp. olive oil
1 small baked sweet potato
Salad: 1-2 cups mixed greens, 1/3 cup green soy beans, ¼ cup each raw broccoli and cauliflower,
½ stalk diced celery, ½ medium tomato, and 1/8 avocado with 1 Tbsp. Flax Oil Dressing.*
(servings: 1 protein, 1 legume, 3 oil, 1 category 2 vegetable, free veggies)
Evening Snack Vegetable salsa dip: 1/3 cup salsa with 1 whole cucumber, ½ cup each: raw green beans, and
sliced red peppers (free veggies)

Day 2

Breakfast Vegetable omelet with 2 whole eggs or 1 whole egg and 3 whites, and ¼ cup chopped spinach and
2 Tbsp. sliced mushrooms. Spray pan with olive oil before cooking (or coat with ¼ tsp. oil).
(servings: 1 protein, free veggies)
Morning Snack Protein shake
Lunch Large tossed salad: 2 cups shredded mixed greens, 2 oz. white tuna (**Vegetarian option:** substitute
¾ cup cottage cheese for tuna), ½ cup each garbanzo or kidney beans, raw broccoli, cauliflower, ¼
cup cucumber slices, ½ medium tomato, with 1 Tbsp. Flax Oil Dressing. *
3 Ryvita® crackers with 1 Tbsp. almond butter
1 medium peach or 1 whole grapefruit
(servings: 1 protein, 1 legume, 1 grain, 1 nut, 1 fruit, free veggies, 2 oil)
Afternoon Snack Protein shake
Dinner ½ cup Split Pea Soup*
Chicken vegetable stir-fry: 3 oz. chicken breast (**Vegetarian option:** Substitute 8 ounces tofu for
chicken), cut into strips, stir-fry in 1 tsp. Olive oil (remove from pan before stir-frying veggies). 1
cup asparagus, cut in chunks, ½ cup each red or green pepper strips and sliced onion, and 1 clove
minced garlic, stir-fried with 1 tsp. olive oil and fresh minced ginger. Add stir-fried chicken, soy
sauce, salt and pepper to taste.
½ cup baked acorn squash, sprinkled with cinnamon
(servings: 1 protein, 1 legume, 1 category 2 vegetable, free veggies, 2 oil)
Evening Snack 1 serving Peach/Apricot Frothy*
topped with 4 oz. plain yogurt
(servings: 1 dairy, 1 fruit)

Split Pea Soup (serves 10)

3 cups split peas, well rinsed
8 cups chicken broth or water
1 bay leaf
1 tsp. mustard powder
1 large onion, chopped
2 cloves garlic, minced
3 stalks celery, chopped
3 medium carrots, diced
Salt and pepper to taste

In a 6-quart pot, combine peas, desired liquid, and bay leaf. Bring to a boil, lower heat and simmer, partially cover for 20 minutes, stirring occasionally. Add remaining ingredients and continue to simmer for 40 additional minutes, stirring occasionally. Salt and pepper to taste. (servings: 2 legumes)

Day Three

Breakfast Protein shake

Morning Snack 1 medium apple, sliced and topped with 1 Tbsp. cashew butter
(servings: 1 fruit 1 nut)

Lunch 1 serving Lentil-Barley Stew*
4 oz turkey or soy burger
Celery and cucumber sticks
(servings: 1 protein, 1 legume, 1 grain, 1 oil)

Afternoon Snack Protein shake

Dinner 1 serving Roasted Red Snapper with Salsa* (**Vegetarian option:** substitute 4 oz. baked marinated tofu for snapper in the recipe)
½ cup cooked butternut squash
1 cup Sautéed Cabbage and Fennel *
Tossed Salad: 1-2 cups mixed greens, ½ cup garbanzo beans, ¼ cup each raw red or green pepper, radishes and cauliflower, ¾ cup cherry tomatoes, with 1 Tbsp. Flax Oil Dressing.*
(servings: 1 protein, 1 legume, 3 oil, 1 category 2 vegetable, free veggies)

Evening Snack 1 serving Orange Cream*
(servings: 1 fruit, 1 dairy)

Roasted Red Snapper with Salsa (serves 8)

4 tsp. olive oil
4 red snapper fillets, 8 ounces each
1 Tbsp. fresh lime juice
1 Tbsp. freshly chopped cilantro
Salt and pepper to taste

Preheat oven to 400 degrees. Brush 1 tsp. olive oil on a baking sheet and place fish, skin side down. Combine remaining olive oil, lime juice, and cilantro and brush on each fillet. Sprinkle with salt and pepper to taste. Allow to sit for 15 minutes; then bake for 20 minutes or until just cooked. Serve immediately.

Salsa

2 large tomatoes, diced
2 scallions, chopped
1 Tbsp. chopped cilantro
1 clove crushed garlic
1 Tbsp. olive oil
2 tsp. fresh lime juice
Combine the following in a bowl. Garnish cooked snapper with salsa and serve immediately. (servings: 1 protein, 1 oil)

Orange Cream (serves 4)

1 envelope unflavored gelatin

1/2 cup orange juice**
8 oz. can mandarin oranges, water packed
2 cups plain yogurt
1/2 tsp. ground nutmeg or cinnamon

In a small saucepan, stir together gelatin and orange juice and mix until dissolved. Add liquid from mandarin oranges. Cook until gelatin is completely dissolved. Cool mixture, then stir in yogurt and orange segments (reserving a few for garnish), mixing well. Pour cream into four parfait glasses; garnish each glass with the reserved orange segments. Sprinkle with nutmeg or cinnamon and chill for several hours.
(servings: 1 fruit, 1 dairy)

** While fruit juice is generally not allowed on this program, the amount contained in this recipe is insignificant.

Day Four

Breakfast Protein shake
Morning Snack 3 Ryvita® crackers with 1 Tbsp. hazelnut or almond butter
(servings: 1 grain, 1 nut)
Lunch 1 serving Autumn Bean Soup*
Tossed salad: 1-2 cups shredded mixed greens, 3 oz. grilled halibut, cut into chunks, 1/2 cup green peas, 1/4 cup each raw broccoli flowerets, cucumber and tomato slices, 1/4 avocado, sliced with 1 Tbsp. Flax Oil Dressing. *
1 large orange or 2 small tangerines
(servings: 1 protein, 2 legume, 1 fruit, 2 oil)
Afternoon Snack Protein shake
1 cup mixed berries with 4-6 oz. low-fat or non-fat, plain yogurt
(servings: 1 fruit, 1 dairy)
Dinner 4 oz broiled chicken breast or lean roast leg of lamb
(**Vegetarian option:** vegetarian omelet with 3 egg whites and 1 whole egg with steamed green beans and mushrooms as below)
1/3 cup cooked winter squash
1/2 cup steamed green beans and 1/2 cup mushrooms, sautéed with 1 clove minced garlic in 1 tsp. olive oil
(servings: 1 protein, 1 oil, 1 category 2 vegetable, free veggies)
Evening Snack Vegetable salsa dip: 1/3 cup salsa with 1/2 cucumber, 12 baby carrots and 1/2 cup sliced red peppers
(servings: 1 category 2 vegetable, free veggies)

Day Five

Breakfast Protein shake
Morning Snack 1 peach
(servings: 1 fruit)
Lunch 1 serving turkey chili* or vegetarian chili*
Spinach salad: 1-2 cups chopped spinach, 1 hard boiled egg, sliced, 1/4 cup each mung bean sprouts, chopped red pepper, 1 grated carrot, 1/4 cup sliced mushrooms, 4 cherry tomatoes, sprinkled with 2 Tbsp. chopped walnuts or sunflower seeds. Dress with 1 Tbsp. Flax Oil Dressing.* (servings: 1 1/2 protein, 1 legume, 1 nut, oil)
Afternoon Snack Protein shake
Dinner 1 serving Creamy Cold Tomato Soup*
3 oz. baked or broiled rainbow trout or bass
(**Vegetarian option:** substitute 6 oz. tempeh or tofu to stir-fry.)
1 serving Barley with Vegetables* OR Mexican Quinoa*
1 cup steamed broccoli, red pepper, mushroom and onion stir fried in 1 tsp. olive oil; season to taste. (servings: 1 protein, 1 grain, 1 oil, free veggies)
Evening Snack 15 cherries,
1/4 cup hummus with 2 whole carrots, raw celery, and cucumber sticks
servings: 1 fruit, 1 legume, 1 category 2 vegetable, free veggies)

Turkey Chili (serves 8)

2 pounds ground raw turkey
2 16-ounce cans tomatoes, cut up (undrained)
2 15-ounce cans red kidney beans, drained
1 8-ounce can tomato sauce
1 medium onion, chopped
¼ cup dry red wine, optional
1-2 Tbsp. chili powder
1 tsp. dried parsley flakes
¾ tsp. dried basil, crushed
¾ tsp. dried oregano, crushed
½ tsp. black pepper
½ tsp. ground cinnamon
1 clove garlic, minced
¼-½ tsp. ground red pepper
1 bay leaf

In a 4-quart Dutch oven cook the turkey until it is no longer pink. Drain off fat. Stir in undrained tomatoes, drained kidney beans, tomato sauce, onion, wine (if desired) and spices. Simmer uncovered for 45 minutes, stirring occasionally. (servings: 1 protein, 1 legume, 1 oil)

Vegetarian Chili (Serves 8)

2 tablespoons olive oil
1 medium onion, chopped
4 cloves garlic, minced
½ pound mushrooms, chopped
2 15-oz. cans pinto or kidney beans, including liquid
1 bell pepper, chopped
2 cups cauliflower pieces
2 carrots, scrubbed and chopped
1 28-oz. can plum tomatoes, with juice
2 tablespoons tomato paste
3 tablespoons red wine or red wine vinegar
1 cup tomato juice
1 tablespoon ground cumin
2 tablespoons chili powder
1 teaspoon paprika
salt and pepper to taste

In 6 quart pot, over medium heat, sauté onions and garlic until onions are softened, about 5 minutes. Add mushrooms, and sauté another 5-10 minutes. Stir in remaining ingredients and bring mixture to a boil. Reduce heat to simmer. Cover and cook, stirring occasionally, breaking up tomatoes into chunks, until vegetables are tender, about 50 minutes.

(servings: 1 legume, 1 oil)

Creamy Cold Tomato Soup (serves 5)

1 cucumber, chopped
1 scallion, chopped
1 clove garlic
4 cups tomato juice
1 green pepper, chopped
½ tsp dill weed
sliced mushrooms or tomato chunks for garnish
1 cup plain yogurt

Combine all ingredients (except yogurt) in small amounts in blender and blend until smooth. Use salt sparingly if needed, and pepper. Whisk in yogurt. Chill several hours before serving and garnish as desired with mushrooms or tomato. (1 dairy)

Day Six

- Breakfast** 1/3 cup TVP mixed with ½ cup plain soy milk (heat in microwave for 30-60 seconds). Sprinkle with cinnamon as desired. Add a few drops of vanilla and/or stevia if sweetening is desired.
(servings: 1 protein, 1 dairy)
- Morning Snack** Protein shake
12 baby carrots
(servings: 1 category 2 vegetable)
- Lunch** 1 serving Crustless Vegetarian Quiche*
Tossed salad: 1-2 cups mixed arugula, raddichio and romaine lettuce greens, 1/3 cup green soy beans, ½ each tomato, and cucumber, sliced, and 3 radishes, with 1 Tbsp. Flax Oil Dressing*.
(servings: 1 legume, 1 protein, 3 oils, free veggies)
- Afternoon Snack** Protein shake
1 whole apple, sliced and 1 stalk celery, spread with 1 Tbsp. almond butter
(servings: 1 fruit, 1 nut, free veggies)
- Dinner** 1 cup black bean soup
4 oz. salmon or marinated tempeh, grilled
1 cup steamed Brussels sprouts topped with 1 tsp. flax oil
½ cup brown basmati and wild rice topped with 1 tsp. flax oil
(servings: 1 protein, 1 legume, 1 grain, free veggies, 2 oil)
- Evening Snack** 1 serving Peach/Apricot Frothy*
(servings: 1 fruit)

Day Seven

- Breakfast** Protein shake
- Morning Snack** 1 ½ cups mixed berries, topped with 4-oz plain low-fat or non-fat yogurt, sprinkled with 2 Tbsp. chopped walnuts and cinnamon to taste
(servings: 1 fruit, 1 dairy, 1 nut)
- Lunch** 1 serving Turkey Bulgur Skillet* or Turkey Stroganoff Skillet*
Tossed salad: 1-2 cups shredded mixed greens, 1/2 cup baby green peas, ½ cup each raw broccoli, cauliflower, and cucumber slices, 2 radishes, sliced with 1 Tbsp. Flax Oil Dressing *
(servings: 1 legume, 1 grain, 1 protein, 3 oil, free veggies)
- Afternoon Snack** Protein shake
- Dinner** 1 serving Barley Minestrone Soup*
4 oz. grilled or baked tuna or halibut
1 serving Red Pepper and Zucchini Salad*
1 small baked sweet potato
(servings: 1 legume, 1 protein, 2 oil, 1 category 2 vegetable, free veggies)
- Evening Snack** 1 medium pear
(servings: 1 fruit)

The following are some additional Breakfast/Snack Options which will help you to design your own program, if this is easier for you

**Breakfast
Menus (275-325 calories)**

**Morning/Afternoon snack
Suggestions (150-175 calories)**

<ul style="list-style-type: none"> • Omelet made with 3 egg whites, 1 egg, and unlimited category 1 vegetables, chopped and cooked with 1 tsp olive oil • 1 slice whole grain toast <p>(servings: 1 protein, 1 grain, and 1 oil)</p>	<ul style="list-style-type: none"> • 1 egg hardboiled • 1 medium apple <p>(servings: ½ protein, 1 fruit)</p>
<ul style="list-style-type: none"> • ¾ cup nonfat or low-fat cottage cheese • ½ cup natural juice canned peach slices • 8 walnut or pecan halves, chopped, cinnamon <p>(servings: 1 protein, 1 fruit, and 1 nut)</p>	<ul style="list-style-type: none"> • 1 medium pear • 10 whole almonds <p>(servings: 1 fruit, 1 nut)</p>
<ul style="list-style-type: none"> • 4 oz. plain low-fat yogurt or 6 oz. nonfat yogurt • 1 ½ cups mixed strawberries, blueberries, and raspberries • 2 Tbsp. sliced almonds <p>(servings: 1 fruit, 1 dairy and 1 nut)</p>	<ul style="list-style-type: none"> • 1 slice whole rye bread, toasted • 1 Tablespoons almond butter <p>(servings: 1 grain, 1 nut)</p>
<ul style="list-style-type: none"> • 1/3 cup TVP (soy protein concentrate) with • 6 oz soy milk: heat in microwave 1 minute • add 1 tsp. vanilla, 8 walnuts halves, chopped • sprinkle cinnamon & add stevia to taste <p>(servings: 1 protein, 1 dairy and 1 nut)</p>	<ul style="list-style-type: none"> • Carrot, 1 medium • Celery, and cucumber sticks, unlimited • ¼ cup hummus <p>(servings: ½ category 2 vegetable, 1 legume)</p>
<ul style="list-style-type: none"> • ½ whole wheat pita • ¼ cup nonfat or low-fat ricotta • 1.5 oz smoked salmon/lox • red onion slices <p>(servings: 1 protein, 1 grain)</p>	<ul style="list-style-type: none"> • 2 pieces turkey bacon • 1 hard boiled egg <p>(servings: 1 protein)</p>
<ul style="list-style-type: none"> • 1 poached egg • 1 slice whole rye bread, toasted • 1 half grapefruit <p>(servings: 1 protein, 1 grain, ½ fruit)</p>	<ul style="list-style-type: none"> • 1 small nectarine or peach, sliced • ½ cup blueberries • 4 oz plain lowfat or 6 oz nonfat yogurt <p>(servings: 1 fruit, 1 dairy)</p>
<ul style="list-style-type: none"> • 3 oz tofu and • 1/3 cup egg substitute • category 1 vegetables, chopped • 1 Tbsp Parmesan cheese <p>scrambled together using 1 tsp. olive oil</p> <ul style="list-style-type: none"> • 3 Ryvita®, Sesame rye crackers <p>(servings: 1 protein, 1 grain, 1 oil)</p>	<ul style="list-style-type: none"> • Raw veggies: unlimited category 1 • 1 Tablespoon tahini • 3 Ryvita™ crackers <p>(servings: 1 nut, 1 grain)</p>

Daily Food Log

(Each box represents one serving from that food group, erase the blocks not needed on your program)

Category 1 Vegetables: unlimited; have a minimum of 3 servings daily

Legumes: O O O

Category 2 Vegetables: O O

Concentrated protein sources: O O O O

Remember 3 oz fish!!

Oils: O O O O O O O

Nuts and Seeds: O O

Fruits: O O O

Dairy: O O

Whole Grains: O O

Notes and exceptions:

Answers to Commonly Asked Questions about the Functional Body Composition Program

1. Why do I need this type of diet?

Your healthcare provider has determined that some of your health challenges are associated with an alteration in the way your body handles certain types and amounts of carbohydrates. This condition is sometimes called insulin resistance or dysglycemia. The diet in this guide provides nutritional support for patients with insulin resistance or dysglycemia. Your health care provider may add specific nutritional supplementation in the form of protein, fiber, and/or herbals.

2. Can I go on this diet if I am pregnant or when I am nursing my baby?

As long as calories are not restricted, this dietary program can be followed during pregnancy or lactation.

3. Is it an appropriate diet for children?

No. The program is based on adult needs, and no testing in children has been done at this time. However, under the supervision of a healthcare provider, the program may be altered to meet the needs of older children or adolescents. Your clinician must help you decide if and how the program may be used with your child.

4. My digestive system doesn't handle legumes very well. What can I do?

Legumes are high in protein and fiber but low in fat. In addition, they have a low "glycemic index," which means the carbohydrates they provide result in only moderate increases in blood sugar. Here are a few suggestions that may increase your tolerance. First, increase your intake slowly over the course of 2-3 weeks. Second, try soaking beans for half an hour before cooking and then discarding the water. Third, you may find that certain legumes work better for you than others. Experiment. Lentils, for instance, are often easy for many people to tolerate. Fourth, an enzymatic aid called Beano™ may be used. This product can be quite helpful, although some people have found that a larger dose than the one suggested on the package is required.

5. Why is shellfish allowed?

Shellfish is extremely low in total fat, especially saturated fat. It also provides only moderate amounts of cholesterol. Although it can not provide omega 3 fatty acids that cold water fish do, it can add pleasure, variety and high quality protein to your menus.

6. Why are sweet potatoes allowed and white potatoes are not?

Certain foods, such as white potatoes, have a high glycemic index, which means the carbohydrates they provide result in a large increase in blood sugar. Although they taste much sweeter than white potatoes, sweet potatoes have a lower glycemic index.

7. Will I be hungry on this program?

Depending on what weight goals you and your health practitioner decide upon, some caloric restriction may be part of your program, or there may be no specific calorie restrictions. The dietary program generally takes some adjustment and you may experience some hunger during this time. However, most individuals adapt to it within a week. Even on the lower calorie program, many people experience no increase in hunger because their insulin and glucose will be in a more balanced range. If you continue to experience extreme hunger, discuss possible adjustments in your program with your practitioner.

8. Can I exercise while I'm on this program?

Yes. However the amount, type and intensity should be discussed and monitored by your healthcare provider.

9. Can I take supplements while on this diet?

Yes. Supplementation may be necessary according to your individual health needs. We suggest following the recommendations of your healthcare provider.

10. How long do I need to remain on this program?

This depends entirely on your individual health situation and goals. Many people will need to stay on this program 4-6 weeks initially. After that, your healthcare provider may make adjustments in nutritional supplementation and the dietary program.

11. Should I discontinue prescription medications while on this program?

No. Medication should be carefully monitored by your healthcare provider. Only in conjunction with him or her should you make a decision to change a prescriptive medication.

12. Can I substitute foods from one food group for another?

Generally not, as each group has certain characteristics. Because there are some similarities, you may occasionally interchange the dairy group and the fruit group. You may also substitute 2 oil servings for 1 serving of nuts and vegetarians may wish to substitute legumes for animal protein.

13. Why are some vegetables (category 2) found in a separate food group than others (category 1)?

These vegetables have a higher glycemic response (and more of calories) than most vegetables. They should be eaten on a more limited basis than those "unlimited" category 1 vegetables.

14. Why is flaxseed oil used only in dressings or directly on food?

Flax oil is easily oxidized and becomes rancid if heated or left unrefrigerated. Olive or canola oils, which are more heat stable, should be used for cooking.

15. What can I use as a sweetener?

Stevia is an herbal sweetener that appears to have no negative effects on blood sugar or insulin levels and is many times sweeter than table sugar. Stevia is found in most health food stores and is available as a white powder or a liquid that may be used in cooking or added directly to foods. However, if you normally crave sweet foods, you should avoid all sweeteners including stevia in order to give your taste buds a chance to appreciate naturally sweet foods such as fruits, carrots, tomatoes, etc.

16. Why is cheese found in the protein group rather than the dairy group?

Foods in the protein category on this program contain few carbohydrates, while a serving in the dairy group contains a modest 10 grams of carbohydrates. Cheeses better fit the protein group, as they are usually low in carbohydrates and have considerably more protein per serving than the other dairy products listed in this group. However, since most cheeses are quite high in saturated fat, very few cheeses are included in this program.