# LESSON 4: <br> FLAVOR \& NUTRITION ON THE MENU 

## Lesson Objectives:

1. Review culinary nutrition techniques for 2010 Dietary Guidelines and MyPlate.
2. Practice the technique of flavor additions with vegetables and fruits.
3. Add whole grains to menu.
4. Prepare a spice blend.


## Culinary and Nutrition Terms

Serving:

Portion:

Roux:

Emulsion:

Food Guide Pyramid:

Whole Grain:

Refined Grains:

Fiber:

Dietary Fiber:

Functional Fiber:

Total Fiber:

Brown Rice:

Barley:

Wild Rice:

Chilies:

Flavor \& Nutrition on the Menu

1. Dietary Guidelines 2010 and MyPlate
2. Flavor Building Ingredients
3. Flavor with Vegetables and fruits
4. Flavor with Hearty Whole Grains
5. Flavor Menu Makeover
6. Portion Control


## Dietary Guidelines 2010 Selected Messages for Consumers

Take action on the Dietary Guidelines by making changes in these three areas.
Choose steps that work for you and start today.

## Balancing Calories

- Enjoy your food, but eat less.
- Avoid oversized portions.


## Foods to Increase

- Make half your plate fruits and vegetables.
- Make at least half your grains whole grains.
- Switch to fat-free or low-fat (1\%) milk.


## Foods to Reduce

- Compare sodium in foods like soup, bread, and frozen meals-and choose the foods with lower numbers.
- Drink water instead of sugary drinks.


Sample Menus for a 2000 Calorie Food Pattern

| Nutrient | Daily average <br> over 1 week |
| :--- | ---: |
| Calories | 1975 |
| Protein | 96 g |
| Protein | $19 \% \mathrm{kcal}$ |
| Carbohydrate | 275 g |
| Carbohydrate | $56 \% \mathrm{kcal}$ |
| Total fat | 59 g |
| Total fat | $27 \% \mathrm{kcal}$ |
| Saturated fat | 13.2 g |
| Saturated fat | $6.0 \% \mathrm{kcal}$ |
| Monounsaturated fat | 25 g |
| Polyunsaturated fat | 16 g |
| Linoleic Acid | 13 g |
| Alpha-linolenic Acid | 1.8 g |
| Cholesterol | 201 mg |
| Total dietary fiber | 30 g |
| Potassium | 4701 mg |
| Sodium | 1810 mg |
| Calcium | 1436 mg |
| Magnesium | 468 mg |
| Copper | 2.0 mg |
| Iron | 18 mg |
| Phosphorus | 1885 mg |
| Zinc | 14 mg |
| Thiamin | 1.6 mg |
| Riboflavin | 2.5 mg |
| Niacin Equivalents | 24 mg |
| Vitamin B6 | 2.4 mg |
| Vitamin B12 | 12.3 mcg |
| Vitamin C | 146 mg |
| Vitamin E | $11.8 \mathrm{mg}(\mathrm{AT})$ |
| Vitamin D | 9.1 mcg |
| Vitamin A | 530 mcg |
| Dietary Folate Equivalents | 386 mg |
| Choline |  |
|  | $1090 \mathrm{mcg}(\mathrm{RAE}$ |

Average amounts for weekly menu:

| Food group | Daily average <br> over 1 week |
| :--- | :--- |


| GRAINS |
| :--- |
| Whole grains |
| Refined grains |


| VEGETABLES | 2.4 |
| :--- | :--- |
| 2.6 cups |  |

Vegetable subgroups (amount per week)
Vegetable subgroups (amount per week)
Dark green 1.6 cups per week
Dark green
Red/Orange
5.6
5.1

| 5.1 |
| :--- |
| 1.6 |
| 4.1 |
| 2.1 cups |
| 3.1 cups |
| 5.7 oz eq |

8.8 oz per week
29 grams
CALORIES FROM ADDED FATS AND 245 calories
SUGARS

## Flavor Building Ingredients

Herbs and spices, condiments, oils, vinegars, nuts, beans, and chilies are some of the most popular flavor building ingredients. They offer a simple way to enhance the taste, aroma, texture of foods, and nutrient level.

## Herbs and Spices

Basil, bay leaf, oregano, rosemary
garlic, dill, chives, cinnamon, ginger and nutmeg

## Condiments

Horseradish, ketchup, mustard, barbecue sauce, wasabi, soy sauce, chutney

## Oils

Olive oil, canola oil, peanut oil, almond oil, walnut oil

## Vinegars

Balsamic vinegar, rice vinegar, apple cider vinegar

## Nuts

Walnuts, pecans, pine nuts, almonds, peanuts, macadamia nuts

## Beans

Kidney beans, navy beans, red beans, black beans, pinto beans, garbanzo beans

## Chiles

Jalapeno, chipotle, cayenne, ancho

## Sweeteners

Honey, Splenda ${ }^{\circledR}$, brown sugar, molasses


Easy to Use Herbs

| Herb | General Flavor | Some Uses |
| :--- | :--- | :--- |
| Basil | Slight Green Mint Flavor | With Tomatoes, In Omelets and <br> Quiche, In Hamburgers, On Pizza, <br> On Grilled Chicken and Vegeta- <br> bles, In Bread. |
| Cinnamon | Slightly Spicy and Sweet | On Fruit, In Cottage Cheese, In <br> Oatmeal and Crepes, In Stews and <br> Chili, In Chutney, With Chocolate <br> and Baked Goods. |
| Cumin | Slightly Bitter, Very Fragrant | In Mexican and Indian Cuisine, In <br> Chili, In Stews, On Roast Beef and <br> Pork, With Barbeque. |
| Garlic | Pungent and Bitter | With Chicken, With Sautéed <br> Vegetables, With Shrimp, In Bar- <br> beque, With Potatoes and Toma- <br> toes, In Savory Breads. |
| Ginger | Sharp, Spicy and Sweet | With Chicken and Ham, In Stir <br> Fry, In Chutney, In Baked Goods. |
| Mustard | Sharp, Pungent and Spicy | In Dips and Dressings, On Meats <br> and Pretzels, In Chili, In Omelets <br> and Eggs, With Broiled Meats, <br> With Baked Beans. |
| Oregano | Slightly Bitter, Aromatic | On Pizza, With Tomatoes, With <br> Beans, On Roasted Meats, In Ital- <br> ian Dishes. |
| Parsley | Cristmas Like, Piney | On Pizza, With Vegetables, With <br> Meats, Almost Anything. |
| Thyme | Crisp and Herbal Minty and Herbal | With Chicken; With Roast Lamb, <br> Pork, and Veal; In Dressings. |

## Flavor with Vegetables and Fruits

Beyond their nutritional benefits, vegetables and fruits offer unique flavor opportunities in every part of your meal. Below are a few ways to flavor with vegetables and fruits.

- Savory sauces: Tomato-based sauces can be used in a variety of ways- in baked beans, on top of meatloaf or a baked potato, or with braised chicken breasts.

Tips:

- Desserts: What a great way to enjoy the nutrient-rich flavor of the rainbow of fruits available today, from apples to watermelon. Use fruits for a tasty and quick fruit topping or filling for a pound cake. Top leftover biscuits with sliced fruit and chopped nuts.

Tips:

- Salsas: Use salsa to kick up the flavor of any dish. Fresh, cooked, or bottled, salsas are used as garnishes, dips, toppings, or side dishes. Salsas can be made the traditional way, with diced tomatoes, onions, and chilies, or with fruits for a sweeter combination.

Tips:

- Beverages: Create a tropical fruit smoothie with sliced banana, mango, pineapple or papaya.

Tips:

## Flavor with Hearty Whole Grains

Make it habit to serve more whole grains. Whole grains are an important source of carbohydrates, B vitamins, and dietary fiber. Foods that are considered whole grains include brown rice, wild rice, oats, popcorn, buckwheat, bulgur, farro, quinoa, barley, and rye. Whole grains provide flavor and texture from hearty to chewy to nutty. Look for "whole-grain" on the label's ingredient list.

## At Meals:

- Use whole grains in mixed dishes, such as barley in vegetable soup or stews.
- Add bulgur to casseroles or stir fry.
- For a change, try brown rice or whole-wheat pasta.
- Use whole-grain bread or cracker crumbs in meatloaf.

Tips:

## As Snacks:

- Serve ready-to-eat whole grain cereals.
- Add whole-grain flour or oatmeal when making cookies or other baked goods.
- Serve a whole-grain snack chip, such as baked tortilla chips.
- Popcorn, a whole grain, can be a healthy snack with little or no added salt and butter.

Tips:


## Flavor Menu Makeover

Just as people need a makeover every so often, your menus may need a new look too. A few simple tips can help you add great flavor, nutrition, and fun to the meals and snacks you prepare at home.

- Use your flavor building ingredients: Sometimes a dash of cayenne pepper or a splash of lemon juice gives food a flavor makeover. Herbs and spices, condiments, nuts, beans, and chilies pack in flavor and color while dressing up a dish.

Tips:

- Disguise 'em: With a few culinary tricks, you can make your menus healthier without anyone knowing. For example, serve multi-grain waffles for breakfast. It’s a great way to "sneak" healthy fiber into favorite foods.

Tips:

## Simple ingredient substitutions:

| Next time a recipe calls for this | Use this instead |
| :--- | :--- |
| Sour cream | Plain low-fat yogurt |
| Cream cheese | Low-fat cream cheese |
| Whole eggs | Egg substitutes |
| Regular cheese | Reduced-fat cheese |
| Vegetable oil | Applesauce |

- Portion-size 'em: Use smaller plates, bowls, and glasses whenever possible. Smaller plates will help you manage portion sizes. You can always help yourself to seconds if they are still hungry.

Tips:

## Portion Control

Do you know how much you are eating? Misjudging portion sizes is common. Many people don't realize how much they actually eat.

- A portion is the amount of food you choose to eat. There is no standard portion size amount and no single standardized portion size.
- A serving is a standard amount used to help give advice about how much to eat or to identify how many calories are in a food.
- Check the nutrition label for the difference between a portion and serving. Based off of the serving sizes given on the label condense the caloric needs for various age groups.

Tips:

Here are some commonly used images to help you "eyeball" the amount of food and whether there is too much or too little. Keep in mind, these illustrations are just guidelines.

3 ounces of meat = a deck of cards or the palm of your hand $1 / 2$ cup of cereal, rice, pasta, or ice cream $=1 / 2$ baseball
$11 / 2$ ounces of natural cheese $=$ a 9 -volt battery or 3 dominoes
1 teaspoon butter, margarine, mayonnaise, or oil = a thumb tip (the top joint)
1 ounce nuts = one handful (not heaping!)
1 tablespoon of salad dressing or peanut butter $=1 / 2$ ping-pong ball


## MyPyramid Portion Sizes <br> Vegetables

## Dark Greens:

Raw Baby Spinach - 1 cup
Vegetable Group: counts as $1 / 2$ cup dark green vegetables


## Orange:

3aby Carrots - 1 cup
Vegetable Group: counts as 1 cup orange vegetables


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\text { Broccoli - } 1 / 2 \text { cup }
$$

Vegetable Group: counts as $1 / 2$ cup dark green vegetables


Baked Sweet Potato - 1 large
Vegetable Group: counts as 1 cup orange vegetables


## Dry Beans and Peas:

Cooked Pinto Beans - $1 / 2$ cup
Vegetable Group: counts as $1 / 2$ cup dry beans and peas
Meat and Beans Group: counts as 2 ounce equivalents meat and beans


## Starchy:

Baked potato - 1 medium
Counts as 1 cup starchy vegetables


Cooked Corn - 1/2 cup
Counts as $1 / 2$ cup starchy vegetables


Other:
Raw Tomato - $1 / 2$ cup
Counts as $1 / 2$ cup other vegetables


Gala Apple - 1 small
Counts as 1 cup fruit


Cooked Green Beans - $1 / 2$ cup
Counts as $1 / 2$ cup other vegetables


## Fruit

Orange juice - $1 / 2$ cup
Counts as $1 / 2$ cup fruit



## Whole Grains

Brown Rice - $1 / 2$ Cup
Counts as 1 ounce equivalent whole grains


Popcorn - 3 Cups
Counts as 1 ounce equivalent whole grains


## Dairy



Cheddar Cheese - $1 / 3$ cup shredded Counts as 1 cup milk


## Meat \& Beans

Beef Strip Steak - 5 ounces cooked weight
Counts as 5 ounce equivalents meat $\&$ beans


Chicken breast - 1 small breast half, cooked
Counts as 3 ounce equivalents meat and beans



## Spices \& Seasonings

| Taco Seasoning | - 2 tsp dried onion <br> - 1 tsp chili powder <br> - $1 / 2$ tsp crushed red pepper <br> - $1 / 2$ tsp dried oregano <br> - $1 / 2$ tsp dried garlic <br> - 1 tsp ground cumin | Note: adding cornstarch will thicken the sauce in the pan. <br> - $1 / 2$ tsp cornstarch |
| :---: | :---: | :---: |
| Poultry Seasoning | - 1 tsp ground sage <br> - 1 tsp dried thyme <br> - 1 tsp black pepper <br> - 1 tsp garlic powder <br> - 1 tsp onion powder | Note: try turning this dry rub into a wet rub by mixing with yellow mustard. |
| Grilling Rub | - 1 tsp paprika <br> - 1 tsp garlic powder <br> - 1 tsp onion powder <br> - 1 tsp chipotle pepper <br> - 2 tsp dried oregano <br> - 1 tsp black pepper | Note: This works well on all meats. Let this rub sit on the refrigerated meat for 1 hour. |
| Herb Blend | - 1 tsp dried thyme <br> - 1 tsp dried oregano <br> - 2 tsp rubbed sage <br> - 1 tsp dried rosemary <br> - 1 tsp dried marjoram <br> - 1 tsp dried basil <br> - 1 tsp dried parsley flakes | Note: This herb blend tastes fantastic on vegetables. |

Homemade spice blends tend to have a much brighter flavor. As always, feel free to adjust them to your own personal tastes. It is best to make smaller amounts

## Navy Bean Chowder

(makes 12 servings)
Ingredients:
1 lb dried or 215.5 oz cans Navy beans
1 cup diced onion
$11 / 2$ cup diced celery
$1 / 4$ cup olive oil
$1 / 4$ cup flour
1 tsp salt (optional)
¼ tsp pepper
3 cups skim milk
1 (16 oz) can diced tomatoes
1 (16 oz) can whole kernel corn
$1 / 4 \mathrm{lb}$ low-fat Monterey Jack or Cheddar cheese

Instructions:
Create a spice blend to use in the chowder. Clean, rinse, soak, and cook dried beans in a stock pot of 6-8 cups of hot water for 1 hour. Don't drain. Meanwhile, sauté onions and celery in olive oil until transparent. Whisk in flour, salt and pepper. Stir in milk and simmer mixture. Add mixture to stock pot of beans. Add corn, tomatoes and simmer all ingredients together for 30 minutes. Serve with cheese garnish.

Tip: Add a few dashes of bottled hot sauce for extra zing!

Nutrition Information:
Calories: 230
Total Fat: 8g
Saturated Fat: 2.5 g Carbohydrates: 31 g
Fiber: 6g
Protein:12g


## Broccoli Salad

(makes 8 servings)
Ingredients:
2 cups green beans, steamed and chilled
2 cups broccoli, chopped
1 cup carrots, chopped 1 cup celery, chopped
1 (15 oz) can chick peas, drained and rinsed
1 cup fat free Italian dressing

Instructions:
Wash green beans, remove stems and cut into 1-inch pieces. Place in quart sauce pan. Add enough water to cover. Bring to a boil. Once boiling, turn off heat and place beans in a strainer. Instantly run cold water over beans until chilled. Add chilled beans to a large bowl. Cut up broccoli, carrots, and celery and add to the bow. Drain and rinse chick peas. Add to the vegetables. Mix contents of the bow. Add fat free Italian dressing. Stir to coat vegetables.

Tips: Add more dressing if vegetables seem dry.
Serving suggestion: garnish with chopped tomatoes, olives, peppers, and/or water chestnuts.

Nutrition Information:
Calories: 110
Total Fat: 1g
Saturated Fat: 0g
Carbohydrates: 22g
Fiber: 5g
Protein: 4g


