

# Marshall Islands

## Food Choices for Healthful Living based on food group lists

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Anne Caprio Shovic, Ph.D., R.D.

# Acknowledgements

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## Nutrient analysis sources:

Nutritionist III, "N" Squared Computing, 1992

Exchanges for All Occasions, by M. Franz, MS, RD, 1993

Food Intake Analysis System, University of Texas Health Science Center at Houston, 1992

The Food Group Lists are the basis of a meal planning system designed by the American Diabetes Association and The American Dietetic Association.

Disclaimer: The use of brand names does not imply endorsement. Nutrient value and exchange lists are based on current data and may be subject to change as new information becomes available.

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## Marshall Islands Food Choices for Healthful Living Based on Food Group Lists

ADAP Project, 95-1

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# Introduction

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Diet is an important part of the treatment of many diseases including obesity, diabetes, heart disease and high blood pressure. The Marshall Islands Food Group Lists have been prepared to help in the understanding of what food is made of so that a modified diet can be more easily followed.



# Principles of Good Nutrition

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- **Maintain a healthy weight.** Obesity increases your risk for diabetes, hypertension and coronary heart disease.

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- **Eat a variety of foods.** Eating a variety of foods increase your chances of obtaining all the vitamins, minerals and nutrients your body needs.

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- **Eat less fat.** Too much fat may cause heart and blood vessel disease. Avoid fried foods. Watch your portion sizes of all meat - it's easy to eat too much. Eat fewer high-fat foods such as canned meats, corned beef (from keg & can), coconut milk, gravy, salad dressing, chicken/turkey wings and tails.

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- **Eat more starches, especially those high in fiber.** Starches are a good source of energy, vitamins, and minerals. Fiber in foods may help to lower blood-glucose and blood-fat levels. All people should increase the amount of carbohydrate and fiber they eat. This can be done by eating more taro, yams, sweet potato, cassava, bananas, breadfruit, dried beans, and peas; more whole grain breads, cereals, and crackers; and more fruit and vegetables.

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- **Eat less sugar.** Sugar has only calories (energy) and no vitamins or minerals, and it increases the risk of dental cavities. Foods high in added sugar include desserts such as cakes and pies, sugary breakfast foods (such as toaster pasteries and sugar coated cereals), cookies, candy, pastries,

table sugar, honey, sweet drinks, and syrup. People with diabetes need to avoid these foods.

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**■ Eat less salt and sodium.**

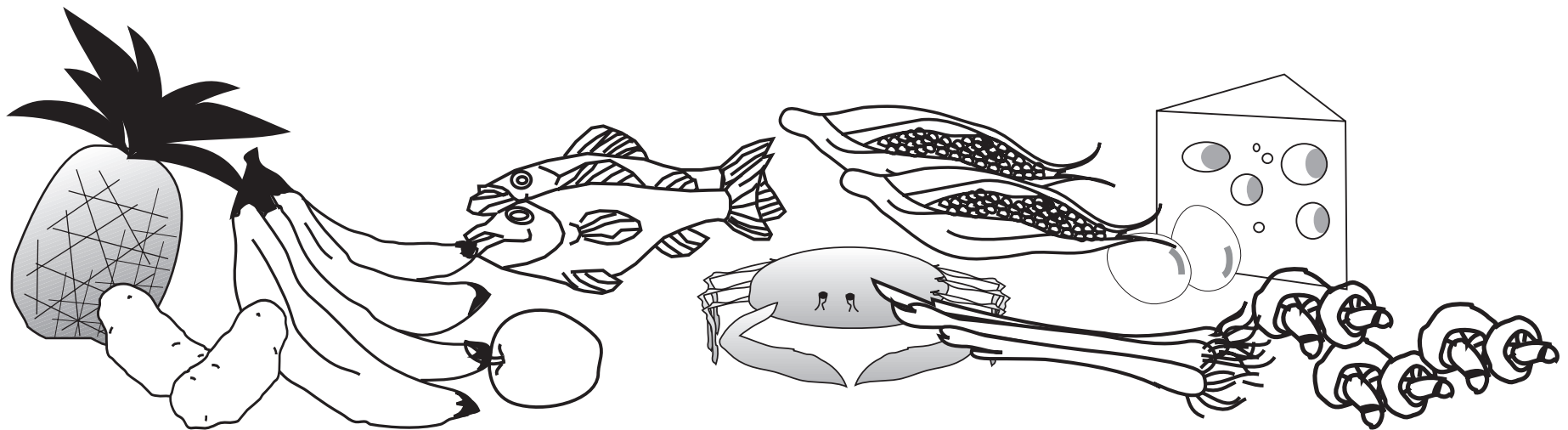
Many of us eat too much salt. The sodium in salt can cause the body to retain water, and in some people it may raise blood pressure. High blood pressure may be made worse by eating too much salt and sodium. Try to use less salt and soy sauce in cooking and at the table. Foods that are high in sodium, such as processed and convenience foods, are noted in this booklet with a special symbol ✦.

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**■ Limit alcohol intake.**

It is best to avoid alcohol altogether. If you like to have an alcoholic drink now and then, ask your physician or nutritionist how to work it into your meal plan.

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# The Food Groups

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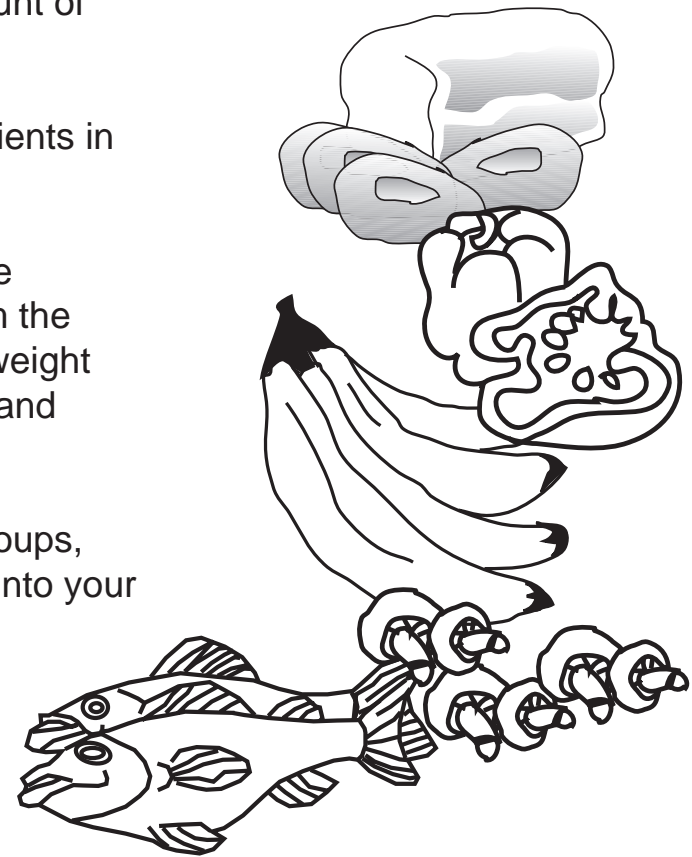
To make it easier for you to follow your meal plan and to meet your nutritional needs, foods have been divided into six Food Groups.

The reason for dividing food into six different groups is that foods vary in their carbohydrate, protein, fat, and calorie content. Each group contains foods that are alike - each choice contains about the same amount of carbohydrate, protein, fat, and calories (energy).

The chart on the following page shows the amount of these nutrients in one serving from each Food Group.

As you read over the Food Group Lists, you will notice that some choices are for a larger amount of food than another choice from the same list. Because foods are so different, the measurement or weight for each food is set so the amount of carbohydrate, protein, fat, and calories (energy) are the same for each choice.

If you have a favorite food that is not included in any of these groups, ask your nutritionist about it. That food can probably be worked into your meal plan.



# Nutrient Content by Food Group

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<b>Food Group</b>	<b>Carbohydrate (grams)</b>	<b>Protein (grams)</b>	<b>Fat (grams)</b>	<b>Calories (energy)</b>
<b>Starch</b>	15	3	trace	80
<b>Protein/Meat</b>				
Lean	—	7	3	55
Medium-fat	—	7	5	75
High-fat	—	7	8	100
<b>Vegetable</b>	5	2	—	25
<b>Fruit</b>	15	—	—	60
<b>Calcium/Milk</b>				
Skim	12	8	trace	90
Lowfat	12	8	5	120
Whole	12	8	8	150
<b>Fat</b>	—	—	5	45

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# Meal Plan by Calorie Content

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Each calorie level can be divided into food groups to provide a well balanced meal plan. Calorie levels are based on individual needs and include specific number of servings from each of the food groups.

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	<b>1500 calories</b>	<b>2000 calories</b>	<b>2300 calories</b> (Pregnancy Exchanges)	<b>2600 calories</b>
<b>Protein/Meat Group</b>				
Lean (Meat A)	2	3	4	5
Medium-fat (Meat B)	2	3	3	3
High-fat (Meat C)	1	1	1	2
<b>Starch Group</b>	7	9	10	11
<b>Vegetable Group</b>	3	4	5	5
<b>Fat Group</b>	3	4	5	6
<b>Fruit Group</b>	3	5	5	6
<b>Calcium/Milk Group</b>	2	2	3	3
<b>Coffee or tea, plain</b>	Unlimited	Unlimited	Unlimited	Unlimited

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Explanation: Each calorie level can be divided into food groups to provide a well balanced meal plan. Calorie level is based on individual needs.

# Meal Planning Using Food Groups

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Your Meal Plan should include foods from each Food Group. The number of foods in each group is planned to provide you with a balanced diet to fit your needs.

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## **Calcium/Milk Group**

The Calcium/Milk Group includes milk and milk products, tofu made with calcium, and fish with bones. These foods contain calories (energy), protein, calcium, vitamin A and several B vitamins.

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## **Vegetable Group**

The Vegetable Group includes some vegetables high in vitamin A, vitamin C and fiber which are important to health. High vitamin A sources will be indicated with a √ and high vitamin C sources will be indicated with a + symbol in this booklet.

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## **Fruit Group**

The Fruit Group includes all kinds of fruit. Some fruits contain small amounts of vitamin C; some are excellent sources of vitamin C. Orange colored fruits, such as mango and papaya, also contain vitamin A.

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## **Starch Group**

The Starch Group includes foods that provide carbohydrates in the form of starch. Cereals, rice, noodles, dried beans and peas, and starchy vegetables such as taro, breadfruit, sweet potatoes and others are good sources of many B vitamins, and other vitamins and minerals. Whole grains are high in fiber.

# Meal Planning *(Continued)*

## Protein/Meat Group

The Protein/Meat Group includes foods which provide protein, some fat, minerals and vitamins. This list includes meats, fish, poultry, eggs, tofu, and cheese.

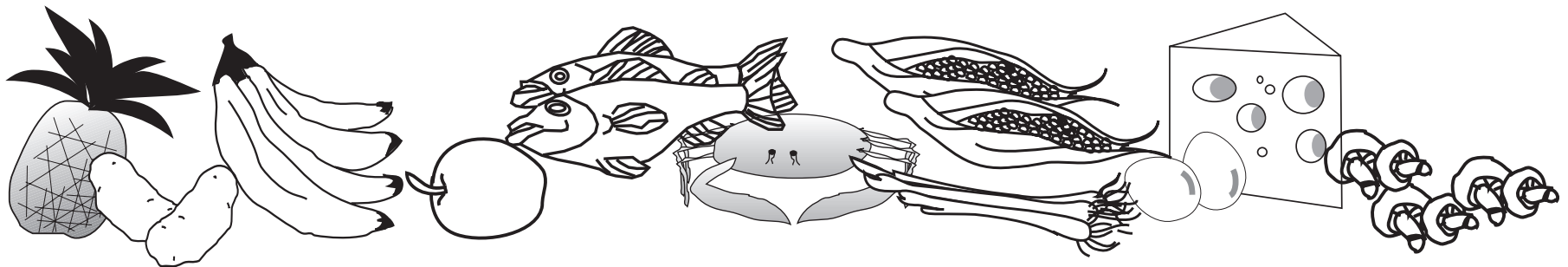
Most meats you eat should be lean since fat contributes twice as many calories as protein or carbohydrate. Cut off all the visible fat before cooking. When cooking chicken, make sure you remove the skin. Bake, broil, roast, stew or pan-fry without added fat. Discard the fat that comes out of the meat while cooking.

The **kind** of meat or other protein foods makes a difference. The Protein/Meat Group has been divided into three lists: low, medium and high fat Protein/Meat Groups.

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## Fat Group

The Fat Group include foods high in fats. There are two categories of fats: **1) Saturated Fats** such as fats from animals and coconut palm oils; **2) Unsaturated Fats** or liquid vegetable oils. Your doctor may want you to be on a "Fat Controlled" diet. This means that you control the kind of fat you use as well as the amount.



# Marshall Islands Example Menu

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The following sample menus have been worked out to show you how to use your Meal Plan. The fat content has been reduced to provide approximately 20% of the total energy intake. The protein content is 15-20% and carbohydrate content 60% of total energy. These sample menus are planned to meet the nutritional needs of adults and are not meant to be used for children.

## Sample Menu (2000 calories)

Daily Servings:	Calcium/Milk	Vegetables	Fruit	Starch	Protein/Meat A	Protein/Meat B	Protein/Meat C	Fat
	2	5	7	9	7	1	0	5

### Breakfast

- 1 Fruit
- 2 Starch, 1 Fruit
- 1 Calcium/Milk (add 1 Fat)
- 1 Protein/Meat B
- 1 Fruit
- 3/4 cup papaya
- 2 servings banana pancakes
- 1 cup 2% milk
- 1 egg
- 1 tablespoon syrup

### Lunch

- 3 Protein/Meat A
- 3 Starch
- 1 Vegetable
- 1 Fruit
- 3 ounces fish
- 1 cup rice
- 2 servings eggplant
- 1/2 cup orange juice

### Snack

- 1 Starch
- 1 Fruit, 1 Fat
- 2 cup coconut water
- 1/4 serving pandanus

### Dinner

- 4 Protein/Meat A
- Free Food
- 1 Fat
- 2 Vegetable
- 1 Calcium/Milk (add 1 Fat)
- 3 Starch
- Stirfry: 4 ounces fish
- 1 serving kang kong
- 1 teaspoon oil
- 2 servings pumpkin leaves
- 1 cup 2% milk
- 1-1/2 cup taro

### Snack

- 2 Fruit
- 1 banana

# Meal Plan Form

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You may want to divide your food for the day this way:

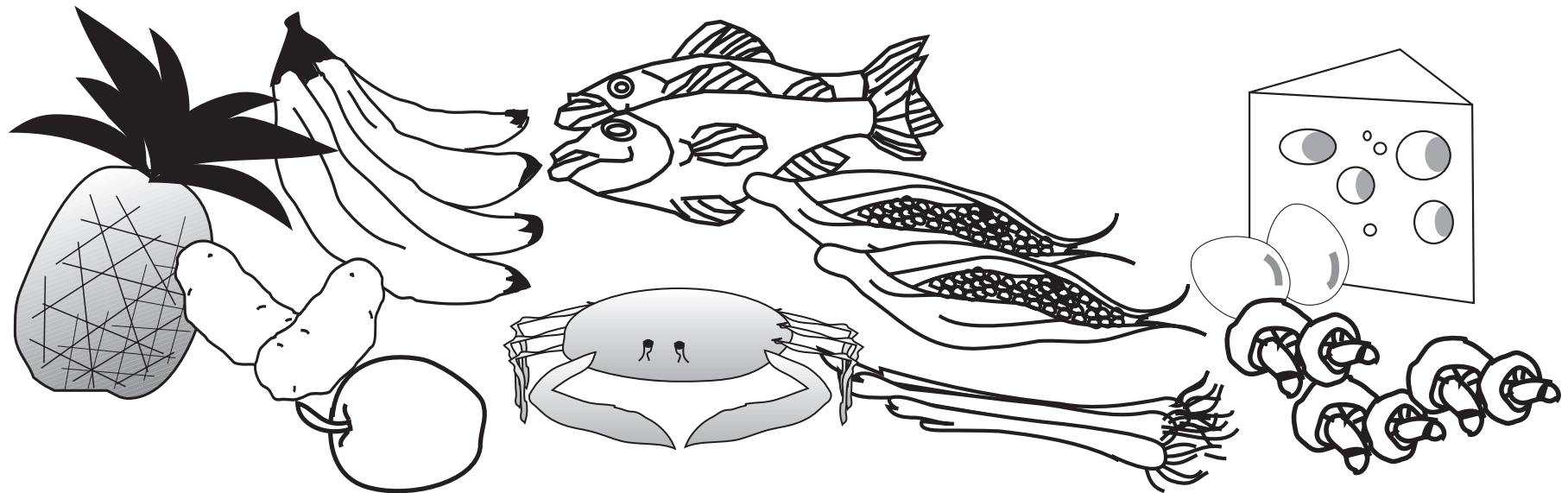
Meal Plan	Number of Servings	Food	Amount
<b>Breakfast:</b>			
Protein/Meat Group (A, B, or C)	_____	_____	_____
Starch Group	_____	_____	_____
Fat Group	_____	_____	_____
Fruit Group	_____	_____	_____
Calcium/Milk Group	_____	_____	_____
Coffee or tea, plain	_____	_____	_____
<b>Lunch:</b>			
Protein/Meat Group (A, B, or C)	_____	_____	_____
Starch Group	_____	_____	_____
Vegetable Group	_____	_____	_____
Fat Group	_____	_____	_____
Fruit Group	_____	_____	_____
Calcium/Milk Group	_____	_____	_____
Coffee or tea, plain	_____	_____	_____
<b>Snack:</b>			
Protein/Meat Group (A, B, or C)	_____	_____	_____
Starch Group	_____	_____	_____
Vegetable Group	_____	_____	_____
Fat Group	_____	_____	_____
Fruit Group	_____	_____	_____
Calcium/Milk Group	_____	_____	_____
Coffee or tea, plain	_____	_____	_____

**Dinner:**

Protein/Meat Group (A, B, or C)	_____	_____	_____
Starch Group	_____	_____	_____
Vegetable Group	_____	_____	_____
Fat Group	_____	_____	_____
Fruit Group	_____	_____	_____
Calcium/Milk Group	_____	_____	_____
Coffee or tea, plain	_____	_____	_____

**Snack:**

Protein/Meat Group (A, B, or C)	_____	_____	_____
Starch Group	_____	_____	_____
Vegetable Group	_____	_____	_____
Fat Group	_____	_____	_____
Fruit Group	_____	_____	_____
Calcium/Milk Group	_____	_____	_____
Coffee or tea, plain	_____	_____	_____



# Measuring Your Foods

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Measuring is a key to knowing how much food you eat. The measurement in ounces, inches, spoons, or cups is indicated for each food in the Food Groups.

You need a set of measuring cups which include a full 8-ounce cup, a half cup, a third of a cup and a quarter cup. You also need a teaspoon, a tablespoon, and a ruler to measure your meats.

All measurements are level. Do not heap or pack your cups or bowls. For example, to measure a level spoonful, fill your spoon, then run a knife edge across the spoon pushing off all the extra food. Measuring a level cupful would involve the same process.

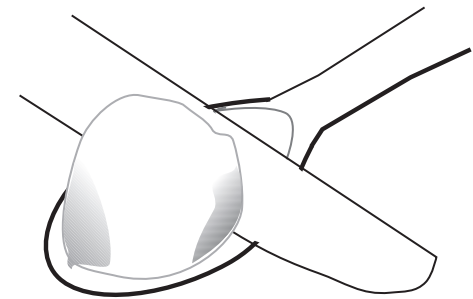
A small food scale is also very helpful especially for measuring meats. Make sure the scale measures ounces accurately.

Measure your foods until you can train your eye to be accurate. Check all your measurements every once in a while to be sure you are correct.

Foods which are eaten cooked should be measured after they are cooked. Fat that is used in cooking must be counted as a fat serving. Frying adds a great deal of fat. For example, a breast of chicken which has been rolled in flour and fried may add 1 starch group and 2 or more fat groups.



**Heaping Spoonful**



**Leveling Spoonful**

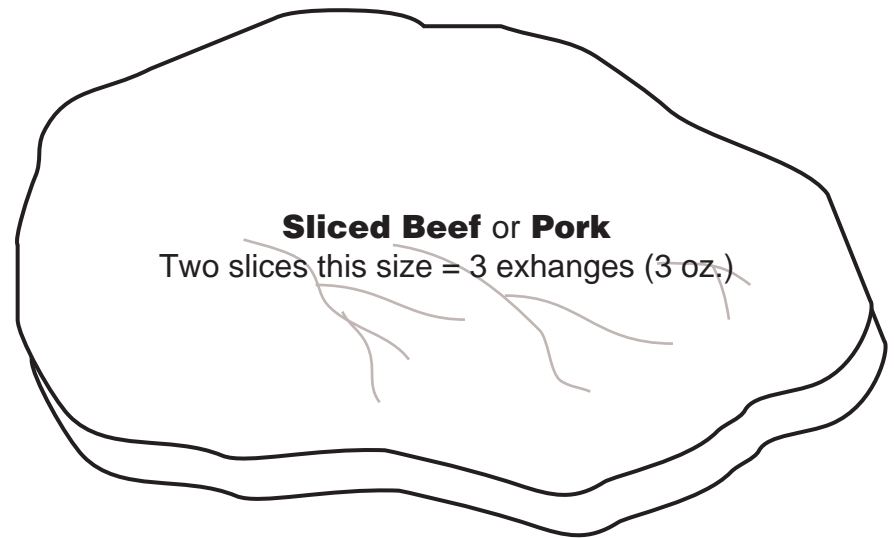
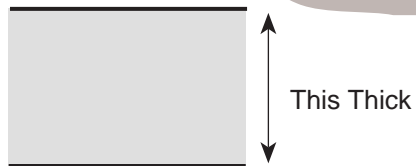
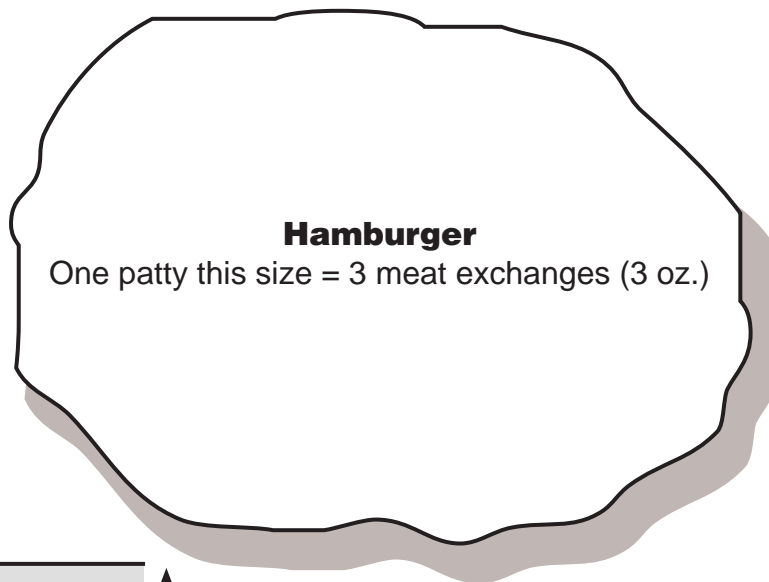


**Level Spoonful**

# Meat Portion Guide

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Study these sketches to help you estimate ounces of meat. They represent the actual size of a 3 ounce portion of cooked lean meat without bone. It is about the size of a deck of cards. If you are eating only 2 ounces (2 meat servings) decrease the portion size of meat accordingly.



4 ounces raw meat without bone	=	about 3 ounces cooked
5 ounces raw meat with bone	=	about 3 ounces cooked
1 small chicken leg and thigh or 1/2 breast	=	about 3 ounces cooked



# Calcium/Milk Group

One nonfat calcium/milk serving contains approximately 90 calories, 12 grams carbohydrates, 8 grams protein and a trace of fat.

<i>Food</i>	<i>Measure</i>	<i>Food</i>	<i>Measure</i>	<i>Food</i>	<i>Measure</i>
<b>Low Fat</b>		<b>Medium Fat</b> (add 1 fat)		<b>High Fat</b> (add 2 fats)	
Skim milk	1 cup	2% milk	1 cup	Whole milk	1 cup
1% milk	1 cup	Evaporated 2% milk	1/2 cup	Filled milk	1 cup
Nonfat dry milk powder	1/3 cup	Plain lowfat (2%) yogurt	1 cup	Evaporated milk	1 cup
Evaporated skim milk	1/2 cup			Plain yogurt	1 cup
Plain nonfat yogurt	1 cup			Filled condensed milk	1/3 cup



1 Cup Skim Milk



1/2 Cup Evaporated Milk  
Add 2 Fat Exchanges

<i>Food</i>	<i>Measure</i>	<i>Food</i>	<i>Measure</i>	<i>Food</i>	<i>Measure</i>
<b>Seafood</b>		<b>Seafood</b> (add 1 fat)		<b>Seafood</b> (Canned fish with bones) (add 2 fats)	
Sardines, canned in Tomato sauce	2 ounces	Sardines, canned in oil, drained	2 ounces	Salmon	
		Mackerel	3 ounces	Sockeye, drained	3 ounces
		Salmon		Coho, drained	3 ounces
		Chinook	3 ounces	Mackerel, drained	3 ounces
		Chum	3 ounces		
		Coho	3 ounces		
		Pink	3 ounces		

<i>Food</i>	<i>Measure</i>
<b>Cheese</b>	
Swiss	1 ounce
Romano	1 ounce
Parmesan	1-1/2 ounces
Mozarella (part skim milk)	1-1/2 ounces
Low fat cheese (with 50-90 calories per ounce)	1 ounce
Low fat Ricotta	5 ounces

<i>Food</i>	<i>Measure</i>
<b>Cheese</b> (add 1 fat)	
Ricotta	6 ounces
Parmesan	2 ounces

<i>Food</i>	<i>Measure</i>
<b>Cheese</b> (add 2 fats)	
Cheddar	1-1/2 ounces
American	1-1/2 ounces
Jack	1-1/2 ounces
Mozerella	2 ounces

<i>Food</i>	<i>Measure</i>
<b>Others</b>	
Dark green leafy vegetables (raw or cooked) such as Kang Kong, spinach, or broccoli	2 cups

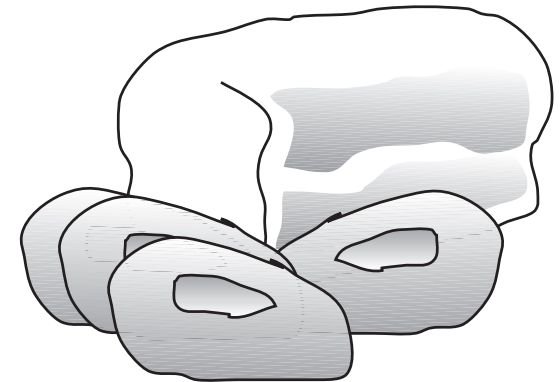
<i>Food</i>	<i>Measure</i>
<b>Others</b> (add 2 fats)	
Tofu (made with calcium)	8 ounces

# Starch Group

---

One starch serving contains approximately 80 calories, 15 grams of carbohydrate and 3 grams of protein.

<i>Food</i>	<i>Measure</i>
<b>Bread</b>	
Bread (white, whole wheat, rye, raisin, French)	1 slice (2-1/2" diameter)
Bread crumbs	3 tablespoons
Bun, hamburger	1/2 bun (4" diameter)
Bun, hot dog	1/2 bun
English muffin	1/2
Roll, plain	1 (2" diameter)
Tortilla	1 (6" diameter)
<b>Cereals</b>	
All cooked cereals	1/2 cup
#Bran Flakes, All Bran, Raisin Bran	1/2 cup
#Bran (coarse texture)	1/2 cup
Cornmeal, dry	2-1/2 tablespoons
Dry cereals (not sugared)	3/4 cup
Dry cereals (sugared)	1/2 cup
Granola	1/4 cup
Shredded wheat	1/2 cup
#Wheat germ	3 tablespoons
<b>Coconut water</b>	1-1/2 cup
<b>Crackers/Snacks</b>	
Bread stick	3/4 ounce
Cabin or Fiji biscuit	1
Cream cracker	1-1/2
Graham	3 (2-1/2" square)
Navy biscuit	1
Popcorn (without butter)	3 cups
Pretzels	3/4 ounce
Rice cakes	2 large or 8 mini
#Ry Krisp (triple square wafer)	3
Saltines	6 (2" square)
Soda	3 (2-1/2" square)
Whole wheat crackers (Finn, Kavli, Wasa)	2-4 slices (3/4 ounce)



## Flour Products

Cornstarch	2 tablespoons
Flour	3 tablespoons
Noodles, beanthread (long rice)	1/2 cup
Noodles, rice	3/4 cup
Noodles; macaroni, spaghetti, egg, ramen	1/2 cup cooked
Saimin noodles	1/2 cup
Tapioca, dry	2 tablespoons

## Rice

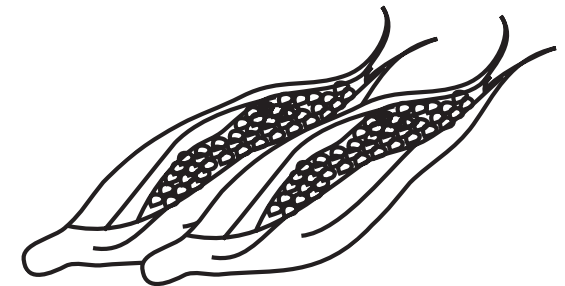
Rice, cooked	
Calrose	1/3 cup
Brown	1/3 cup
Instant	1/3 cup
White, enriched	1/3 cup
Wild	1/3 cup

## ★Soup

Noodle/rice broth base	1 cup
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## Starchy Vegetables

Barley	1/3 cup cooked
Banana (cooking)	1/2 cup
#Beans and peas; dried, cooked	1/3 cup
#Beans, baked	1/4 cup
#Beans, butter	1/3 cup
Beans, mongo	1/4 cup
Breadfruit, cooked	1/3 cup
Cassava	1/2 cup
#Corn	1/2 cup
#Corn, cream style	1/3 cup
#Corn on the cob	1 (6" long)
Kon from taro or breadfruit	1/3 cup
Lima beans	1/2 cup
Mixed vegetables (frozen corn, peas, carrots, lima beans)	1/2 cup
Parsnips	1/2 cup
#Peas, green	1/2 cup
Pidgeon peas, pods	1/2 cup
#Plantain (green banana)	1/2 medium or 1/2 cup
Potatoes	
White, whole	1/2 (3 ounces)
White, mashed, plain	1/2 cup
√Sweet potato	1/3 cup
Soybeans, green	1/2 cup
#Squash, winter, yellow	3/4 cup
Taro	1/2 cup (or 1/2" slice)
Yams	1/3 cup



★Food high in salt  
√Good source of Vitamin A  
#High in fiber

# Starch Group (Add one fat)

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One starch contains 125 calories, 15 grams of carbohydrate, 3 grams of protein, and 5 grams of fat.

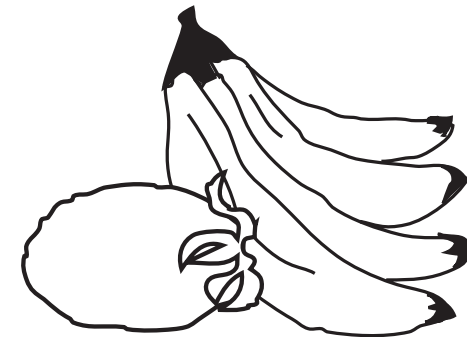
<i>Food</i>	<i>Measure</i>
<b>Bread</b>	
Biscuit	1 (2-1/2" diameter)
Cornbread	1 (2" cube)
Chowmein noodles	1/2 cup
Muffin, plain, small	1
Pancake (4" across)	2
Taco shell (8" across)	1
Waffle (4-1/2" square)	1
<b>Coconut</b>	
Immature meat (sponge)	1-1/2 cups
<b>Crackers/Snacks</b>	
Popcorn	
Microwave - light	3 cups
Microwave - regular (add an extra fat to total)	3 cups
Ritz	6
Wheat thins	14
<b>Flour Products</b>	
Stuffing	1/4 cup
<b>Pandanus root</b>	
	1/2 cup
<b>Rice</b>	
Red rice	1/3 cup
<b>*Soup</b>	
Cream soup	1 cup

\*Food high in salt

# Fruit Group

One fruit serving contains approximately 60 calories and 15 grams of carbohydrate. These fruit may be fresh, cooked, dried, or frozen **without sugar**. If fruit is canned in syrup, cut the portion in half. Choose juice that is 100% fruit.

<i>Food</i>	<i>Measure</i>
Apple, fresh	1/2 medium or 1 small (2" diameter)
Apple, mountain	3 medium
Apple, water	3 medium
Applesauce, unsweetened	1/2 cup
Apple juice	1/2 cup
√Apricots, dried	3 halves
√Apricots, canned	4 halves
Banana	4 inches or 1/2 small or 1 local size
Blueberries	3/4 cup
√+Cantalope	1/3 of 5" diameter fruit (1 cup)
Cherries, canned	1/2 cup
Cranberry juice cocktail	1/3 cup
Figs, fresh or canned	2 medium
Figs, dried	1-1/2
Fruit cocktail	1/2 cup
Fruit, dried	2 tablespoons
Grapes, fresh	10 grapes, large or 15 small
Grape juice	1/3 cup
+Grapefruit, fresh	1/2 medium (3-1/2" diameter)
+Grapefruit, canned sections	3/4 cup
+Grapefruit, juice	1/2 cup
+Guava, fresh	1 medium (2-1/2" diameter)



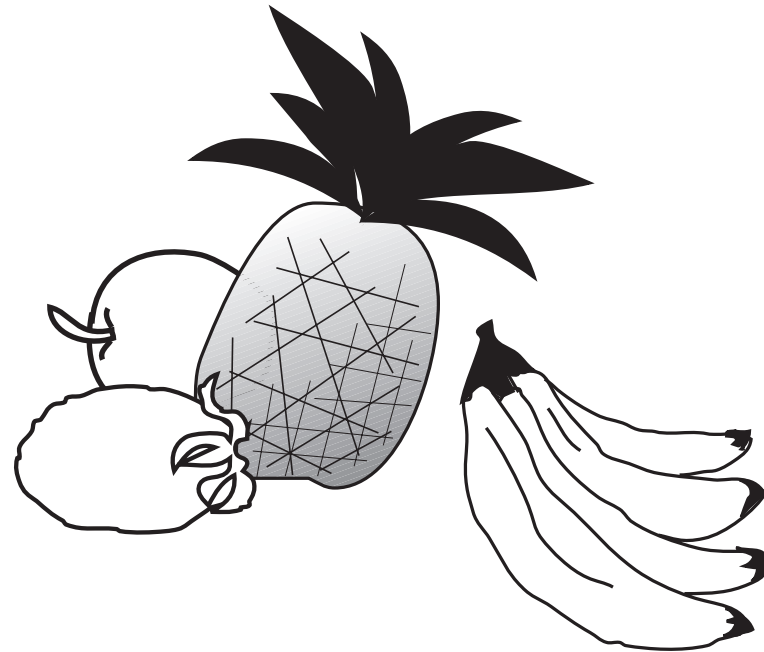
+Good source of vitamin C  
√Good source of vitamin A

## Fruit Group *(Continued)*

<i>Food</i>	<i>Measure</i>
+Honeydew melon	1/8 medium (1 cup)
+Jack fruit	1/3 cup
Juice (other)	1/2 cup
+Kiwi	1 large
+Lychees	10 fruits or 1/2 cup
+Mandarin orange	3/4 cup
√+Mango, ripe	1/2 cup or 1/2 small
Mango (green)	1/2 cup or 1/2 small
√Nectarine	1 (1-1/2" diameter)
Nectars, all kinds	1/2 cup
+Orange, fresh	1/2 large or 1 small (2-1/2" across)
+Orange juice	1/2 cup
√Pandanus fruit	1/4 cup (add 1 fat)
√+Papaya, ripe	1/2 medium or 1 cup cubed
Papaya (green)	1/2 medium or 1 cup cubed
+Passion fruit juice	1/2 cup
√Peach, fresh	1 medium
Peach, canned	1/2 cup or 2 halves
Pear, dried	1
Pear, canned	2 small halves or 1/2 cup
+Pineapple, fresh,	3/4 cup or 1/8 medium
+Pineapple, canned in own juice	1/3 cup
+Pineapple juice	1/2 cup

Plums, fresh	2 medium
Plums, canned	4
+Pomelo (Pommalo)	1 cup sections
#Prunes, dried	3 medium
Prunes, juice	1/3 cup
Raisins	2 tablespoons
Soursop, pulp	1/3 cup
#+Strawberries	1-1/4 cups
+Tangerine	2 medium
Watermelon	1-1/4 cup cubed

+Good source of vitamin C  
 ✓Good source of vitamin A  
 #High in fiber





# Vegetable Group

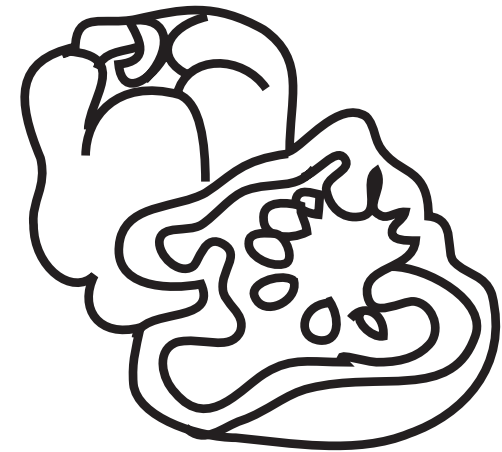
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One vegetable serving contains about 25 calories, 5 grams of carbohydrate and 2 grams of protein.  
One exchange is 1/2 cup.

- Artichoke
  - +Asparagus
  
  - Bamboo shoot
  - Banana bud
  - Bean sprouts
  - Beans, goa (winged)
  - Beans, green
  - Beets
  - Beet greens
  - Bittermelon, fruit
  - √+Broccoli
  - +Brussel sprouts
  
  - √Carrots
  - +Cauliflower
  - Celery
  - Chayote, fruit
  - Chayote, leaves
  - Collards
  - Cucumber
  
  - √Dandelion greens
  
  - Eggplant
  
  - Gourd, dish cloth
  - Gourd, white flowered
  - +Green pepper
- √Kale
  - Kohlrabi
  
  - Leeks
  
  - Mushrooms
  
  - Okra
  - Onion, round
  
  - √Papaya green
  - Pea pods
  - +Pepper, green or bell
  - √Pumpkin leaves
  
  - Rutabaga
  
  - √Spinach
  - √Squash, leaf tips
  - √Sweet potato leaves/shoots
  - √Swiss chard
  
  - √+Taro leaves
  - +Tomato, canned or fresh
  - +Tomato juice
  - Tomato paste
  - Turnip
  - √Turnip greens

√+Vegetable juice

Water chestnuts  
Zucchini



+Good source of vitamin C  
√Good source of vitamin A

These may be used as desired, raw or up to one cup cooked.

Cabbage - all kinds

Celery

√Fern leaves and stems

Green Onions

Kang kong - swamp cabbage

Kombu seaweed

Lettuce

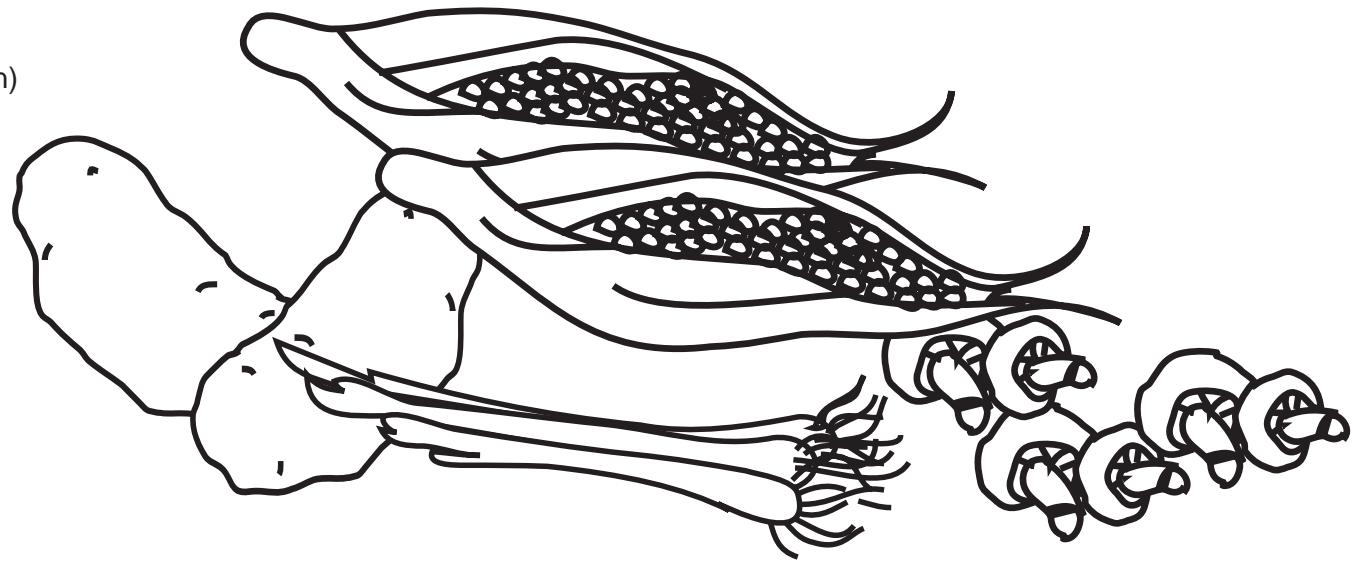
√Parsley

+Radishes (includes daikon)

√Radish leaves

Seaweed

Watercress



+Good source of vitamin C  
√Good source of vitamin A

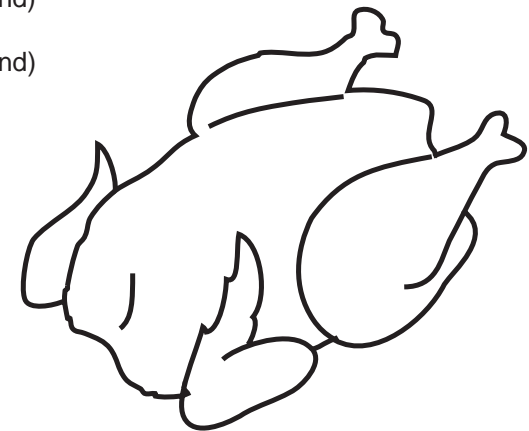
# Protein/Meat Group A (Lean)

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The protein/meat groups have been divided into three groups according to the fat content.

**Protein/Meat Group A** (lean). One protein/meat serving contains approximately 55 calories, 7 grams protein, and 3 grams fat.

<i>Food</i>	<i>Measure</i>
<b>Beef</b>	
★Chipped beef	1 ounce or 1 slice (3" x 2" x 1/4")
Lean flank steak, sirloin, tenderloin steaks, round	1 ounce or 1 slice (3" x 2" x 1/4")
★ <b>Beef jerky</b>	1/2 ounce
<b>Cheese</b>	
Cheese containing less than 5% fat	1 ounce or 1" cube
Cottage, any type	1/4 cup
<b>Chicken</b> (skin removed)	
Breast	1 ounce or 1 slice (3" x 3" x 1/4")
Drumstick	1 ounce or 1/3 piece (3 pieces to one pound)
Thigh	1 ounce or 2/3 piece
Roasted	1 ounce or 1/2 piece (4 pieces to one pound)
1 ounce or slice (3" x 3" x 1/4")	
<b>Chicken</b> , ground	1 ounce
<b>Egg</b>	
Whites, large	3



★Food high in salt

**Fish, fresh**

Abalone, catfish, lobster, mackerel (opelu)	1 ounce
cod, herring, mahimahi, mullet, parrot, red snapper, reef fish, sashimi, sole, sturgeon, tuna	1 ounce or 1 slice (3" x 3" x 1/4")
Clams, crab, cuttlefish, lobster, opihi, scallops, shrimp, squid, octopus	2 ounces
Fish cake paste	1/4 cup
Oysters	6 medium
★Sardines, canned in oil, drained	2 ounces
Sea cucumber	1 cup
★Tuna, canned in water	1/4 cup

**Frog legs**

1 ounce

**Luncheon Meat**, 95% fat free

1 ounce

**Pork**

Lean ham, tenderloin, ★Canadian bacon 1 ounce or 1 slice (3" x 3" x 1/4")

**Soybeans**, boiled

1/3 cup

**Tripe**

1 ounce

**Turkey** (skin removed)

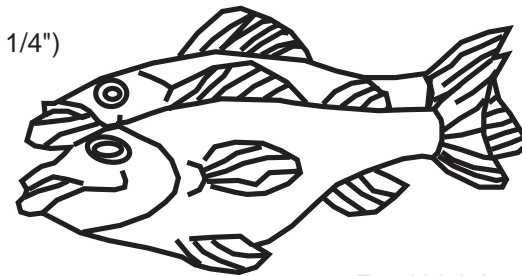
White and dark meat, roasted 1 ounce

★Turkey ham, turkey pastrami,  
turkey breast (processed) 1 ounce or 1 slice (3" x 3" x 1/4")**Turkey**, ground

1 ounce

**Veal**

Leg, loin, rib, shank, shoulder 1 ounce or 1 slice (3" x 2" x 1/4")

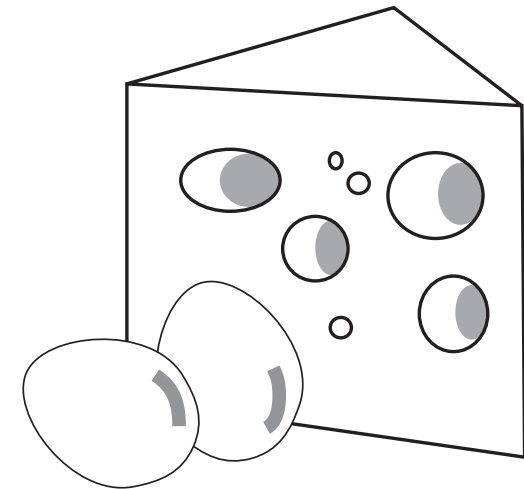


★Food high in salt

# Protein/Meat Group B (medium fat)

**Protein/Meat Group B** (medium fat). One protein/meat serving contains approximately 75 calories, 7 grams protein, and 5 grams fat.

<i>Food</i>	<i>Measure</i>
<b>Beef</b> (most types fall into this category, fat trimmed))	
Roast (rib, chuck, rump)	1 ounce or 1 slice (3" x 2" x 1/4")
★Ground beef (15% fat), meatloaf	1 ounce
Steak (cubed, porterhouse, T-bone)	1 ounce or 1 slice (3" x 2" x 1/4")
<b>Cheese</b>	
Mozzarella	1 ounce
Ricotta	1/4 cup
<b>Chicken</b> (with skin)	1 ounce
<b>Dog</b>	1 ounce
<b>Duck, Goose</b> (skin and fat removed)	1 ounce
<b>Egg</b> , whole (high in cholesterol; limit to 3 per week)	1 large
Egg substitutes (with 56-80 calories per 1/4 cup)	1/4 cup
<b>Lamb</b> (most lamb products fall into this category, fat trimmed))	
Chops, lean leg, loin, rib, shank, shoulder, sirloin	1 ounce or 1 slice (3" x 2" x 1/4")
<b>Liver, heart, kidney, or gizzards</b> (high in cholesterol)	1 ounce
<b>Luncheon meat</b> (86-94% fat free)	1 ounce
<b>Pork</b> (most pork products fall into this category, fat trimmed)	
★Ham, butt, loin, shoulder, arm, picnic	1 ounce or 1 slice (3" x 2" x 1/4")
Shoulder blade	1 ounce or 1 slice (3" x 2" x 1/4")
<b>Salmon</b> , canned	1/4 cup
<b>Tofu</b>	1/3 cup or 3 ounces (1/6 of a block)
<b>Tuna</b> , canned in oil, drained	1/4 cup
<b>Veal Cutlet</b> (ground or cubed, unbreaded)	1 ounce



★Food high in salt

# Protein/Meat Group C (high in fat)

**Protein/Meat Group C** (high in fat). One protein/meat serving contains approximately 100 calories, 7 grams protein, and 8 grams fat.

<i>Food</i>	<i>Measure</i>
<b>Beef</b>	
Brisket	1 ounce
Corned beef	1 ounce
Ground beef (20% or more fat)	1 ounce
Lean short ribs	1 ounce
Rib eye	1 ounce
Rib roast, club and rib steak	1 ounce or 1 slice (3" x 2" x 1/4")
Spare ribs (meat, without bone)	1 ounce
<b>Cheese</b> (all regular cheeses) Cheddar, American, Monterey, Swiss, Provolone, Blue	1 ounce or 1" cube
★ <b>Cold cuts</b>	1 slice
<b>Fish</b> (any fried fish product)	1 ounce
★ <b>Frankfurter</b> Turkey or chicken Beef or pork (add 1 fat)	1 (10 to a pound) 1 (10 to a pound)
<b>Lamb</b>	1 ounce or 1 slice (3" x 2" x 1/4")
★ <b>Luncheon meat</b> (such as bologna, salami)	1 ounce
<b>Peanut butter</b>	1 tablespoon
<b>Pig ear</b>	1/2 ear
<b>Pork</b> Spareribs, chops, loin (back ribs), ground pork, country style ham	1 oz or 1 slice (3" x 2" x 1/4")
★ <b>Sausage</b> Portugese, Vienna	1 ounce, link or pattie
★ <b>Spam</b> (canned luncheon meat)	1 ounce
<b>Tails</b> Chicken Turkey	1/2 ounce 1/2 ounce
<b>Wings</b> Chicken Turkey	1 (6 pieces per pound) 1/4



★Food high in salt

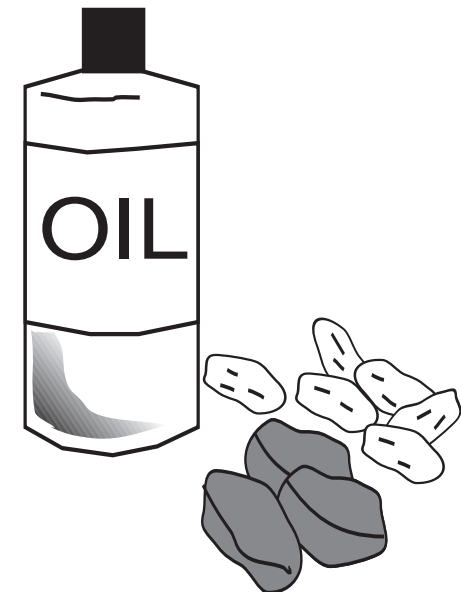
# Fat Group A (high in unsaturated fats)

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The fat group have been divided into two sections, those which are high in unsaturated fats and those which are high in saturated fat.

**Fat Group A - high in unsaturated fats.** One fat serving contains approximately 45 calories and 5 grams of fat.

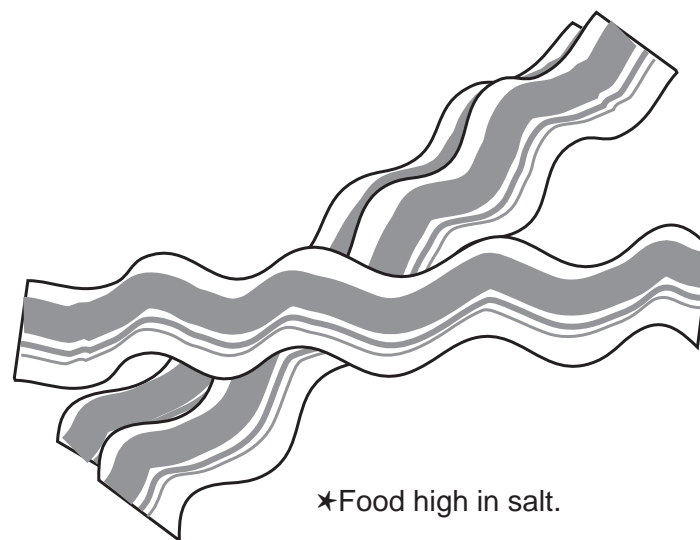
<i>Food</i>	<i>Measure</i>
<b>Avocado</b>	1/6 or 2 tablespoons mashed
<b>Dressings, Salad</b> All varieties	1 tablespoon
Reduced calorie	2 tablespoons
Mayonnaise	1 teaspoon
Mayonnaise, reduced calorie	1 tablespoon
<b>Margarine</b> (first ingredient, liquid oil)	1 teaspoon
<b>Nuts</b> Almonds	6
Cashews	1 tablespoon
Macadamia	1 tablespoon
Peanuts	1 tablespoon
Pecans	1 tablespoon
Pistachio	1 tablespoon
Walnuts	4 halves (1 tablespoon)
Other nuts	1 tablespoon
<b>Oil</b> coconut, cottonseed, corn, peanut, safflower, sesame, soybean and sunflower	1 teaspoon
<b>Olives</b> , ripe	10 small or 5 large
<b>Peanut butter</b>	1/2 tablespoon
<b>Sesame seeds</b>	1 tablespoon
<b>Sunflower seeds</b> , unshelled	1/4 cup
shelled	1 tablespoon
<b>Tartar sauce</b>	2 teaspoons



# Fat Group B (high in saturated fats)

**Fat Group A - high in saturated fats.** One fat serving contains approximately 45 calories and 5 grams of fat.

<i>Food</i>	<i>Measure</i>
<b>Butter</b>	1 teaspoon
★ <b>Bacon</b> , crisp	1 slice
<b>Cheese, cream</b>	1 tablespoon
<b>Coconut</b> Immature meat (sponge)	1-3/4 cup (add 1 bread)
Mature meat	1 piece (1" x 1" x 3/8")
Cream, no water added	1 tablespoon
Milk (1 cup water to 1 cup cream)	2 tablespoons
Coconut, grated	2 tablespoons
<b>Coffee whitener</b> Liquid	2 tablespoons
Powder	4 tablespoons or 1/4 cup
<b>Cream</b> Table	2 tablespoons
Whipped	2 tablespoons
Whipping, heavy	1 tablespoon
<b>Margarine</b> (first ingredient hydrogenated or hardened oil)	1 teaspoon
★ <b>Salt pork</b>	1/4 oz.
<b>Solid cooking fats</b> , lard, shortening	1 teaspoon
<b>Sour cream</b>	2 tablespoons



★Food high in salt.

*Note:* A medium **turkey tail** contains 12 fat servings which equals 60 grams of fat.



# Foods that Do Not Need to be Measured

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Some foods and condiments have very little carbohydrate, protein or fat and can be used without measuring and with a few exceptions, as often as you like.

## **Beverages**

- Carbonated water, club soda
- Coffee, plain
- Soft drinks, artificially sweetened
- Sugar free drink mixes
- Tea, plain
- Water

## **Desserts**

- Gelatin desserts, artificially sweetened
- Sugar substitutes

## **Miscellaneous**

- ★Finedene
- Non stick pan spray
- Pickles, unsweetened
- Seaweeds
- Taco sauce

## **★Soups**

- Bouillon, without fat
- Clear broth

## **Seasonings**

- Chives
- ★Fish sauce
- Garlic
- Ginger
- Lemon juice
- Lime juice
- Molly McButter*
- Mustard, dry or prepared
- Parsley
- Pepper
- ★Salt (in moderation)
- ★Soy Sauce (in moderation)
- Spices and herbs
- Tabasco sauce
- Vinegar



★Food high in salt

# Other Foods for Occasional Use

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Moderate amounts of some foods can be used in your meal plan, in spite of their sugar or fat content. The following list includes food group serving values for some of these foods. Because they are concentrated sources of carbohydrate, you will notice that the portion sizes are very small. Check with your nutritionist for advice on how often and when you can eat them.

<i>Food</i>	<i>Measure</i>	<i>Food Group</i>
*Alcohol - Beer	12 ounce, can	3-1/2 fat
Wine	4 ounce, 1/2 cup	2 fat
Whiskey, gin, rum, vodka (100 proof)	1-1/2 ounce or 1 shot	3 fat
Animal crackers	8 crackers	1 starch
Brownie, no frosting	1 (3" x1-1/2" x 7/8")	1 starch, 1 fat
Cake, angel food or sponge	1/12 cake	2 starch
Cake, no icing	cupcake size, flat top	1 starch, 1 fat
Cake, with icing	cupcake size, flat top	1 starch, 2 fat
Candy bar (Snickers)	1 (2 ounces)	2 starch, 1 fat
Cheese cake	3 ounces	2 starch, 3 fat
Cookies	2 small (1-3/4" across)	1 starch, 1 fat
Donut, cake	1	1 starch, 1 fat
French fried potatoes	10	1 starch, 1 fat
Frozen fruit yogurt	1/3 cup	1 starch
Granola bars	1 small	1 starch, 1 fat
Ice cream, any flavor	1/2 cup	1 starch, 2 fat
Ice milk	1/2 cup	1 starch, 1 fat
Jam, jelly, honey, syrup	1 tablespoon	1 fruit
Jello	1/2 cup	1 fruit
Juice drinks	12 ounce can	2-1/2 fruit

\*Because of minimal nutrient value, fat is used as the equivalent exchange

## Other Foods for Occasional Use *(Continued)*

<i>Food</i>	<i>Measure</i>	<i>Food Group</i>
Macaroni or Potato Salad	1/2 cup	1 starch, 3 fat
Muffin	2" diameter	1 starch, 1 fat
Pie, fruit	1/8 pie	2 starch, 1 fruit, 3 fat
Popsicle	1/2 twin pop	1 fruit
Pudding	1/2 cup	2 starch, 1 fat
Sherbert, any flavor	1/4 cup	1 starch
Soda, sweetened	12 ounce can	2-1/2 fruits
Snack chips, all varieties	1 ounce	1 starch, 2 fat
Sugar	1 tablespoon	1 fruit
Sugar cane, stalk, peeled	4 ounce	1 fruit
Syrup	1 tablespoon	1 fruit
Tea, sweetened	12 ounce can	2-1/2 fruit
Vanilla wafers	6 small	1 starch
Yogurt with fruit	1 cup	1 milk, 1 fruit, 1 fat

# Common Recipes

<i>Recipe</i>	<i>Measure</i>	<i>Food Group</i>
Baked breadfruit	1/2 cup	2 starch, 2 fat
Baked pandanus	1/2 cup	2 fruit, 1/2 starch, 3-1/2 fat
Banana bread	1/16 slice	1/2 fruit, 1 starch, 1 fat
Banana casserole bread	1/16 slice	1/2 fruit, 1 starch, 1 fat
Bananas with coconut sauce	3/4 cup	2 fruit, 1 fat
Banana coffee cake	1/12 cake	1/2 fruit, 2 starch
Banana custard	1/2 cup	1/2 fruit, 1/2 starch, "B" protein/meat, 1/2 fat
Bananas divine	1 cup	1-1/2 fruit, 1 fat, 1/2 starch
Banana fritters	1 cup	1/2 fruit, 2 fat, 1-1/2 starch
Banana jam	1 tablespoon	1 fruit
Banana mash	1 serving	1/2 milk, 4 fruit
Banana milk drink	1 serving	1 calcium/milk, 2 fruit, 1/2 fat
Banana oatmeal cookies	1 cookie	1/2 starch, 1/2 fat
Banana pancakes	1 serving	1 fruit, 2 starch, 1/2 "B" protein/meat, 1 fat
Banana/peanut butter cookies	1 cookie	1/2 starch, 1/2 fat
Banana pie without crust	1/8 pie	3 fruit, 1 starch, 1/2 fat
Banana with tapioca	1 cup	1/2 fruit, 3 starch, 1 fat
Bread	1/16 slice	2 starch, 1/2 fat
Breadfruit pudding	1 cup	1 fruit, 1 fat
Candied papaya	3/4 cup	1 fruit, 1/2 starch, 1 fat
Chicken kaleguen	1 serving	6-1/2 "B" protein/meat, 2-1/2 fat
Chop suey	1 cup	3 vegetables, 1-1/2 "A" protein/meat, 1/2 fat
Cinnamon rolls	1/12 serving (1 roll)	4-1/2 starch, 1/2 fat
Coconut cream scones	1/2 cup	2 starch, 3 fat
Coconut loaf	1/8 serving	3 starch, 2 fat
Coconut pudding	1/2 cup	1 starch, 5-1/2 fat
Coconut turnover	1 turnover	1-1/2 starch, 5-1/2 fat
Corned beef hash patties	1/2 cup	1 starch, 1-1/2 fat, 1/2 "C" protein/meat
Creamed eggs	1 cup	1/2 "B" protein/meat, 1 fat
Creamed tuna	1 cup	1 starch, 2-1/2 "A" protein/meat, 1-1/2 fat

# Common Recipes *(Continued)*

<i>Recipe</i>	<i>Measure</i>	<i>Food Group</i>
Eggplant baked in coconut cream	1 cup	3 vegetable, 4 fat
Eggplant salad	1/2 cup	1 vegetable, 1/2 "B" protein/meat, 2 fat
Fish sauce	1 tablespoon	1-1/2 fat
Fresh banana porridge	1 serving	1 calcium/milk, 2 fruit, 1 starch, 1/2 fat
Fried breadfruit	1/2 cup	2 starch, 2 fat
Fried rice	1 cup	1-1/2 vegetable, 1-1/2 starch, 1 "A" protein/meat, 1-1/2 fat
Fruit sauce	1-1/2 cup	1/2 fruit, 1-1/2 fat
Home-made coconut syrup	1 tablespoon	1/2 fruit, 1/2 fat
Kainabu upside-down cake	1/12 cake	2 starch, 1 fat
Kang kong leaves		free food
Kang kong and soy sauce		free food
Mackerel avocado spread	1/2 cup	2-1/2 "A" protein/meat, 1 fat
Okra and rice	1 cup	1 vegetable, 1 starch, 1 fat
Okra and tomatoes	1/2 cup	2 vegetable, 1 fat
Papaya jam	1 tablespoon	1 fruit
Papaya soup	1 cup	1 fruit, 4-1/2 fat
Pickled kang kong		Free food
Pepper relish	1/2 cup	2 vegetable, 2 fruit
Pie crust	1/8 pie	1-1/2 starch, 1-1/2 fat
Pineapple jam	1 tablespoon	1 fruit
Pineapple upside-down cake	1/8 cake	1/2 fruit, 2 starch, 1-1/2 fat
Pumpkin jam	1 tablespoon	1 fruit
Pumpkin pie without crust	1/8 pie	1/2 starch, 1/2 "B" protein/meat, 1/2 fat

Rice and meat casserole	1-1/2 cup	1 vegetable, 1-1/2 starch, 4 "B" protein/meat, 3 fat
Rice pudding	1/2 cup	1/2 fruit, 1-1/2 starch, 1/2 fat
Salmon cakes	3/4 cup	1/2 starch, 4-1/2 "A" protein/meat, 2 fat
Shellfish or seafood soup	1 cup	1 "A" protein/meat, 3 fat
Stewed chicken	1/6 of a chicken	1/2 vegetable, 1/2 starch, 6 "B" protein/meat, 1/2 fat
Sweet potato soup	1 cup	2 starch, 1 "A" protein/meat, 1/2 fat
Sweet and sour eggplant	2 cups	1/2 fruit, 2 vegetable, 1 fat
Sweet and sour pork	1 cup	1/2 starch, 1/2 vegetable, 3 fat
Taro cakes	1/6 serving	2-1/2 starch, 1 fat
Vanilla pudding	3/4 cup	1/2 calcium/milk, 1 starch, 1/2 fat
Vegetable soup	1-1/2 cup	2-1/2 vegetable, 1 starch, 1 "B" protein/meat, 1/2 fat
White bread	1/16 slice	1-1/2 starch
White sauce - thin	1 cup	1 calcium/milk, 3 fat
White sauce - medium	1 cup	1 calcium/milk, 1/2 starch, 5 fat
White sauce - thick	1-1/2 cup	1-1/2 starch, 1 calcium/milk, 10 fat