



Hanford Occupational Health Services

# Weight Management Week #3

Protein & Fats

Health Education  
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## Review Questions

- ◆ What percentage of your diet should be carbohydrates?
- ◆ How many calories in a pound of fat?
- ◆ How many grams of fiber should we eat per day?
- ◆ What are 3 good sources of fiber?
- ◆ What kind of carbohydrates are better for you, complex or simple?

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## Review Answers

- ◆ 50-60%
- ◆ 3,500
- ◆ 25
- ◆ Whole grains (breads, pasta, cereal, bars), beans, vegetables, fruits
- ◆ Complex



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# What is Protein?

- ◆ Proteins are part of every cell, tissue, and organ in our bodies. These body proteins are constantly being broken down and replaced. The protein in the foods we eat is digested into amino acids that are later used to replace these proteins in our bodies.

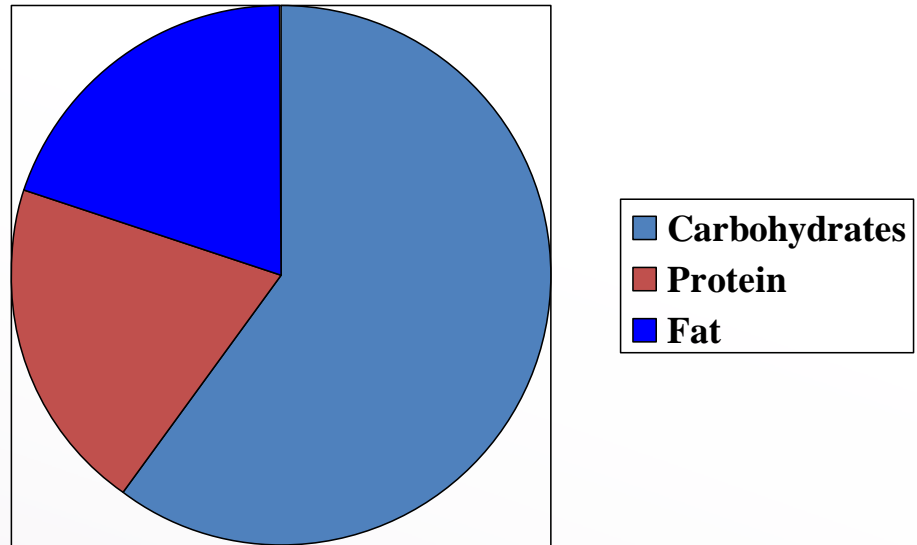
# How much protein should we have?

20% of total calories

**Or**

1 gram per kilogram  
of body weight

1kg = 2.2lbs



1 gram of protein = 4 calories

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## Example

- ◆ Based on a 2,000 calorie diet, 400 calories (20%) should come from protein. Knowing that there are 4 calories in 1 gram of protein, you would need 100 grams of protein per day.

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Protein is found in the following foods:

- ◆ Meats, poultry, fish
- ◆ Legumes (dry beans and peas)
- ◆ Tofu
- ◆ Eggs
- ◆ Nuts and seeds
- ◆ Milk and milk products
- ◆ Grains, some vegetables, some fruits (provide a small amount of protein)

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## Types of Protein

- ◆ **Complete:** a complete protein source is one that provides all of the essential amino acids. You may also hear these sources called high quality proteins. (meat, poultry, fish, milk, eggs, cheese)
- ◆ **Incomplete:** an incomplete protein source is one that is low in one or more essential amino acids.
- ◆ **Complementary** proteins are two or more incomplete protein sources that together provide adequate amounts of all of the essential amino acids.



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## Can I eat too much protein

- ◆ Most people get more protein that they need with no harmful effects. However too much protein, could put you over your daily recommended calories, and cause weight gain.
- ◆ In addition, animal sources of protein are generally higher in saturated fats which can lead to high cholesterol, and heart disease.

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## Low-fat Protein choices:

- ◆ Choose meats that are leaner cuts and trim away any extra fat. For chicken and turkey, remove the skin to reduce fat.
- ◆ Substitute pinto or black beans for meat in chili and tacos.
- ◆ Choose low-fat or fat-free milk, yogurt and cheese.
- ◆ Choose egg whites, eliminating the yoke.



# Types of Dietary Fats

- ◆ Saturated fat
- ◆ Unsaturated fat
  - Mono unsaturated fat
  - Poly unsaturated fat
- ◆ Trans Fat

Sample Label for Macaroni and Cheese

| <b>Nutrition Facts</b>  |                       |         |         |
|---|-----------------------|---------|---------|
| Serving Size 1 cup (228g)   |                       |         |         |
| Servings Per Container 2  |                       |         |         |
| Amount Per Serving  |                       |         |         |
| Calories 250  | Calories from Fat 110 |         |         |
| % Daily Value*  |                       |         |         |
| Total Fat 12g   | 18%                   |         |         |
| Saturated Fat 3g  | 15%                   |         |         |
| Trans Fat 1.5g  |                       |         |         |
| Cholesterol 30mg  | 10%                   |         |         |
| Sodium 470mg  | 20%                   |         |         |
| Total Carbohydrate 31g  | 10%                   |         |         |
| Dietary Fiber 0g  | 0%                    |         |         |
| Sugars 5g   |                       |         |         |
| Protein 5g  |                       |         |         |
| Vitamin A   | 4%                    |         |         |
| Vitamin C   | 2%                    |         |         |
| Calcium   | 20%                   |         |         |
| Iron  | 4%                    |         |         |
| * Percent Daily Values are based on a 2,000 calorie diet. Your Daily Values may be higher or lower depending on your calorie needs: |                       |         |         |
|   | Calories:             | 2,000   | 2,500   |
| Total Fat   | Less than             | 65g     | 80g     |
| Sat Fat   | Less than             | 20g     | 25g     |
| Cholesterol   | Less than             | 300mg   | 300mg   |
| Sodium  | Less than             | 2,400mg | 2,400mg |
| Total Carbohydrate  |                       | 300g    | 375g    |
| Dietary Fiber   |                       | 25g     | 30g     |

Start Here

Limit these Nutrients

Get Enough of these Nutrients

Footnote

Quick Guide to % DV

5% or less is low  
20% or more is high



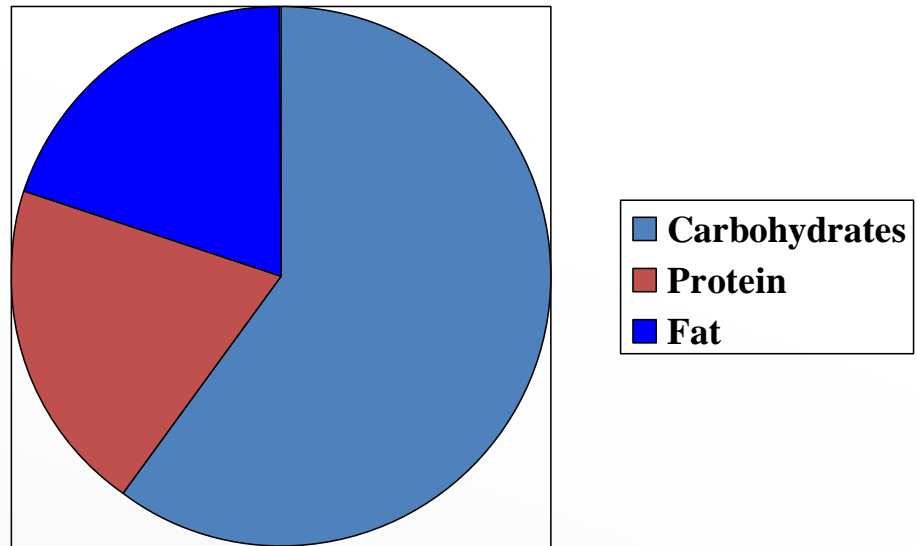
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## Function of Fat

- ◆ Insulation to keep your body warm
- ◆ Insulation to protect vital body organs
- ◆ Most efficient source of energy
- ◆ Increases flavor of food
- ◆ Absorbs fat soluble vitamins A D E K

# How much fat should we have?

20% of total calories



1 gram of fat= 9 calories

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## Example

- ◆ Based on a 2,000 calorie diet, 400 calories (20%) should come from fat. Knowing that there are 9 calories in 1 gram of fat, you would need 44 grams of fat per day.
- ◆ Saturated fat should be less than 10% of your daily calories or under 15 grams per day.

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# Saturated Fat

- ◆ Solid at room temperature.
- ◆ Tend to raise blood cholesterol.
- ◆ Examples: cheese, whole milk, cream, butter, ice cream, fatty meats, skin and fat of poultry, lard, palm oil, and coconut oil.



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## Unsaturated Fat

- ◆ Oils (liquid at room temperature)
- ◆ Examples: vegetable oils, most nuts, olives, avocados, fatty fish (salmon)
- ◆ 2 – Types
  - **Monounsaturated:** remains liquid at room temperature but may start to solidify in the refrigerator. Examples include olive, peanut, canola oils, avocados and most nuts
  - **Polyunsaturated:** usually liquid at room temperature and in the refrigerator. Examples include vegetable oils, such as safflower, corn, sunflower, soy and cottonseed oils.







# Trans Fat

- ◆ Also referred to as trans-fatty acids.
- ◆ Trans fat comes from adding hydrogen to vegetable oil through a process called hydrogenation.
- ◆ This makes the fat more solid and less likely to turn rancid.
- ◆ Examples include: commercial baked goods, such as crackers, cookies and cakes — and in fried foods such as doughnuts and french fries. Also, Shortenings and some margarines.



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## Assignments for Week #3

- ◆ Keep your daily saturated fat intake below 15 grams.
- ◆ Add 30 minutes of exercise to 3 days of your week.