Objectives

➢ To understand the link between fat, fiber, and sodium and health risks
➢ To learn ways to eat more healthfully
  • More good fats and less bad
  • More fiber
  • Less sodium
FATS – The Good, The Bad

- Total fat intake not linked to disease
- Type of fat matters most
- Bad fats increase the risk for certain diseases and good fats lower the risk
- The biggest influence on blood cholesterol level is the mix of fats in the diet
### FATS

<table>
<thead>
<tr>
<th>Type of Fat</th>
<th>Main Source</th>
<th>State at Room Temperature</th>
<th>Effect on Cholesterol Levels</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Monounsaturated</strong></td>
<td>Olive, canola, and peanut oils; cashews, almonds, peanuts, and most other nuts; avocados, olives</td>
<td>Liquid</td>
<td>Lowers LDL</td>
</tr>
<tr>
<td><strong>Polyunsaturated</strong></td>
<td>Com, soybean, safflower, and cottonseed oils; fish, walnuts, flaxseed oil</td>
<td>Liquid</td>
<td>Lowers LDL; effect on HDL varies</td>
</tr>
<tr>
<td></td>
<td>• Linoleic (omega 6)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Linolenic (omega 3)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type of Fat</td>
<td>Main Source</td>
<td>State at Room Temperature</td>
<td>Effect on Cholesterol Levels</td>
</tr>
<tr>
<td>------------</td>
<td>------------------------------------------------------------------------------</td>
<td>----------------------------</td>
<td>--------------------------------------------------------</td>
</tr>
<tr>
<td>Saturated</td>
<td>Whole milk, butter, cheese, ice cream; meat, seafood, poultry skin, egg yolks; palm/palm kernal oil; chocolate; coconuts</td>
<td>Solid</td>
<td>Raises both LDL and HDL (net effect is negative)</td>
</tr>
<tr>
<td>Trans</td>
<td>Most margarines; vegetable shortening; partially hydrogenated vegetable oil; snack foods; many fast foods; most commercial baked goods</td>
<td>Solid or semi-solid</td>
<td>Raises LDL and can lower HDL</td>
</tr>
</tbody>
</table>
FATS

Recommendations for Fat Intake

Total Fat: 25-35% of total calories

Monounsaturated Fats: 12 – 20% of total calories

Polyunsaturated Fats: Up to 10% of total calories (with more omega-3 and less omega-6)

Saturated Fats: No more than 8% of total calories

Trans Fats: 0 – as little as possible
### Percentage of Specific Types of Fat in Common Oils and Fats

<table>
<thead>
<tr>
<th>Oils</th>
<th>Saturated</th>
<th>Mono-unsaturated</th>
<th>Poly-unsaturated</th>
<th>Trans</th>
</tr>
</thead>
<tbody>
<tr>
<td>Olive</td>
<td>13</td>
<td>72</td>
<td>8</td>
<td>0</td>
</tr>
<tr>
<td>Canola</td>
<td>7</td>
<td>58</td>
<td>29</td>
<td>0</td>
</tr>
<tr>
<td>Soybean</td>
<td>16</td>
<td>44</td>
<td>37</td>
<td>0</td>
</tr>
<tr>
<td>Shortening</td>
<td>22</td>
<td>29</td>
<td>29</td>
<td>18</td>
</tr>
<tr>
<td>Margarine</td>
<td>18</td>
<td>2</td>
<td>29</td>
<td>23</td>
</tr>
<tr>
<td>Butter</td>
<td>60</td>
<td>26</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>48% S.O. spread</td>
<td>17</td>
<td>24</td>
<td>49</td>
<td>8</td>
</tr>
</tbody>
</table>

Source: Harvard School of Public Health Lipid Laboratory and USDA publications
FATS

TIPS FOR LOWERING TRANS FAT INTAKE

- Read labels!! By 2006 trans fat is required to be listed on food labels
- Choose liquid vegetable oils or a soft tub margarine that contains little or no trans fats

Harvard School of Public Health
FATS

TIPS FOR LOWERING TRANS FAT INTAKE

- Reduce intake of commercially prepared baked goods, snack foods, and processed foods, including fast foods.
- When foods containing partially hydrogenated oils can’t be avoided, choose products that list the hydrogenated oils near the end of the ingredient list.

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FIBER

- Carbohydrates that cannot be digested or absorbed
- Fiber is present in all plants that are eaten—fruits, vegetables, grains, and legumes
- Not all fiber is the same
FIBER – benefits

➢ Soluble fiber – partially dissolves in water
  • Helps reduce blood cholesterol (important for heart disease risk)

➢ Insoluble fiber – does not dissolve in water
  • Reduces risk of diverticular disease

➢ Fiber (both types)
  • Aids the digestive system to maintain regularity, prevent constipation
  • Reduces risk of metabolic syndrome and diabetes
FIBER

Recommendation:
• Adults: 20-35 g/day
• Children over 2: ≥ age + 5 g/day

Average American only eats 14-15 g fiber a day
### Sources of Fiber

<table>
<thead>
<tr>
<th>Soluble Fiber</th>
<th>Insoluble Fiber</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oatmeal</td>
<td>Whole Grains (whole wheat breads, barley couscous, brown rice, bulgur)</td>
</tr>
<tr>
<td>Oat bran</td>
<td>Whole-grain Breakfast Cereals</td>
</tr>
<tr>
<td>Nuts and Seeds</td>
<td>Wheat Bran</td>
</tr>
<tr>
<td>Legumes (dried peas, beans,</td>
<td>Seeds</td>
</tr>
<tr>
<td>lentils)</td>
<td>Carrots</td>
</tr>
<tr>
<td>Apples</td>
<td>Cucumbers</td>
</tr>
<tr>
<td>Pears</td>
<td>Zucchini</td>
</tr>
<tr>
<td>Strawberries</td>
<td>Celery</td>
</tr>
<tr>
<td>Blueberries</td>
<td>Tomatoes</td>
</tr>
</tbody>
</table>

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Whole-grain Products

- Not usually whole-grain products:
  - Multi-grain
  - Stone-ground
  - 100% wheat
  - Cracked wheat
  - Seven-grain
  - Bran

- Whole-grain if first ingredient on label is:
  - brown rice
  - bulgur
  - graham flour
  - oatmeal
  - whole oats
  - whole rye
  - whole wheat
  - wild rice
  - whole-grain corn

www.mypyramid.gov
**TIPS FOR INCREASING FIBER INTAKE**

- Eat whole fruits instead of drinking fruit juices
- Go for whole-wheat bread, bagels, muffins, etc.
- Choose whole-grain cereals for breakfast
- In baking replace half the white flour with whole-grain flour
- Snack on raw vegetables, air-popped popcorn, fresh fruit, whole grain cereal
TIPS FOR INCREASING FIBER INTAKE

- Substitute legumes for meat two to three times per week
- Add crunch to casseroles by mixing in wheat bran or topping with bran flakes
- Experiment with grains like bulgur, quinoa, and buckwheat
Overwhelming evidence links salt intake to blood pressure (BP)

Risk of having a heart attack or stroke increases with every rise in BP

Just because your BP is low now, doesn’t mean you don’t have to be concerned!
- ~90% of people over age 75 have high BP
SODIUM

- Although increasing BP is common with aging, it doesn’t have to occur.
- “High blood pressure is largely caused by excess salt, excess weight, and insufficient exercise and fruits and vegetables. . .”

Nutrition Action Healthletter
July/August 2005
The Dietary Approaches to Stop Hypertension (DASH) clinical study showed elevated blood pressure levels can be reduced with the following eating plan:

- Low in total fat, saturated fat, cholesterol
- Rich in fruits, vegetables, low fat dairy products

Reducing the amount of sodium in the diet was also applied.
SODIUM

- The DASH diet worked to lower BP. And worked best with the lowest sodium intake.

- The daily plan:
  - 8-10 servings fruit and vegetables
  - 7-8 servings grains (preferably whole)
  - 2-3 servings low-fat dairy
  - 0-2 servings seafood, poultry, lean meat
  - 1 serving beans, nuts, seeds
  - 2-3 servings oils, salad dressing, mayo
  - No more than 5 servings/wk of sweets
SODIUM

- Current recommendation: <2.4 grams (2,400 milligrams) of sodium a day
  - Equals 6 grams (about 1 tsp) of table salt
  - The 6 grams include ALL salt and sodium consumed (in cooking, at the table, in processed foods)
- The Institute of Medicine—independent scientists who advise the government—recently cut the recommended sodium intake from 2,400 mg a day to 1,500 mg (or less for some groups)

Nutrition Action Healthletter
July/August 2005
Only a small amount of sodium occurs naturally in food.

Processed foods account for most of the sodium Americans consume.

Be sure to read food labels to choose products lower in sodium. You may be surprised at the amount of sodium in many foods. Compare brands.

- Low sodium = <140 mg/serving
- Common recommendation = <300 mg/food item
TIPS TO REDUCE SALT & SODIUM

- Use reduced sodium or no-added salt products
- Buy fresh, plain frozen, or “no added salt” canned vegetables
- Choose ready-to-eat breakfast cereals that are lower in sodium
  - Limit cured foods (such as bacon, ham, bologna, hot dogs)
  - Rinse canned foods to reduce some sodium
TIPS TO REDUCE SALT & SODIUM

- Limit foods packed in brine (pickles, pickled vegetables, olives, sauerkraut)
- Use spices instead of salt. Flavor foods w/ herbs, spices, lemon, lime, vinegar, or salt-free seasoning blends
- Cook rice, pasta, and hot cereals without salt
- Cut back on frozen dinners, mixed dishes (pizza, packaged mixes), canned soups or broths, and salad dressings
10 SODIUM TROUBLE SPOTS

Soup
Frozen Entrees
Lunch Meats
Salad Dressing
Soy Sauce
Marinades
Tomatoes
Chicken Broth
Chicken
Rice and Pasta Mixes

Nutrition Action Healthletter
July/August 2005
SUMMARY!

- Limit saturated fats in your diet and eliminate trans fats (as much as possible)
- Choose whole-grain products and work to increase intake of vegetables and fruits
- Eat more whole foods and less processed foods
- Read labels to cut back on sodium
Questions/Comments!

Next Class

Muscle Fitness Basics
(Plus exercises to do at home)

Tuesday, October 4 – 5:30pm-6:30pm
Thursday, October 6 – 11:30am-12:30pm