Fiber is a carbohydrate that our bodies do not digest. This means it provides no calories. Fiber goes through our digestive tract mostly unchanged, which provides health benefits discussed through this handout.

**Soluble Fiber**
Some fibers are called “soluble.” This means they absorb and dissolve in water.

One important function of soluble fiber is its ability to “trap” fats and move them through the digestive tract and out of the body. This benefits blood cholesterol numbers.

**Insoluble Fiber**
Some fibers are “insoluble.” This means they do not absorb or dissolve in water.

Because it does not absorb water, insoluble fiber helps bulk and soften stools, and can help promote bowel health.

**Daily Dietary Fiber Goal**
For adults, eating 20-30g of fiber per day is recommended.

Source: Dietary Guidelines for Americans 2015-2020

---

**Total Fiber, Soluble, Insoluble: What to Focus on?**
As food labels do not have to divide total dietary fiber into soluble and insoluble, focus more on eating the recommended amount of dietary fiber each day.
Sources of Fiber

Plant Foods
All plant foods contain fiber. Some have more than others.
Processing of foods can change the amount of fiber in foods. For example, an apple may have 3g of fiber, while 100% apple juice will have 0g of fiber.

Animal Foods
Animal foods do not contain any fiber.
Some animal foods, such as yogurt, may have added fiber. These fibers are often isolated from foods, and are called functional fiber.
Examples include cellulose, chitin and chitosan, guar gum, hemicelluloses, inulin, lignin, psyllium.

Nutrition Facts Panel
On the back of food packages, find the specific amount of dietary fiber (in grams (g)) per a serving of each food.

How to use this?
1. Add up your dietary fiber for foods you eat each day. Did you reach the recommended goal?
2. Before buying a food, use the grams to compare between brands. Buy the one with more dietary fiber.
Higher Fiber Dining and Shopping

Use the tips below to increase fiber when you are eating and shopping. Keep reading labels and choosing more plant foods.

**Eating Out**
- Ask for fruit, like an apple or a fruit cup, as a side
- Eat raw vegetables, such as on salad bar or a pre-made salad from the menu
- Add vegetables to your sandwiches and burgers. The bread in restaurants is likely not a whole grain, and thus lower in fiber.
- Try rice and pasta menu items with vegetables, and ask for extra vegetables
- Choose soups and chili with beans or lentils
- Pick oatmeal at breakfast. Add fruit for extra fiber

**Cooking**
- Swap refined grains – like regular wheat bread, white rice, and regular pasta – for whole-grain varieties
- Add extra vegetables to any recipe
- Use beans and lentils in place of some meat – or use both to make enough for leftovers
- Use vegetable-based sauces, like tomato pasta sauce, over cream-based sauces, like alfredo

**Shopping**
- Between two products, choose the one with more fiber
- Pick up fruit and vegetables you will eat – fresh, canned, frozen, and dried. Check labels to see how much fiber is in a food. Remember, processing may change the amount.

**Snacking**
- Choose a high-fiber food, such as almonds, for a snack more often then a low-fiber food, such as a candy bar

---

**Fun Facts: Calories?**

Since fibers are not digested, they do not add calories. Foods high in fiber help slow digestion and increase feelings of fullness.
Higher Fiber Meal Planning

Small swaps in your meal planning can help you add more fiber.

<table>
<thead>
<tr>
<th></th>
<th>Higher Fiber</th>
<th>Lower Fiber</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Breakfast</strong></td>
<td>8-oz 1% milk – 0g</td>
<td>8-oz 1% milk – 0g</td>
</tr>
<tr>
<td></td>
<td>1 cup flake cereal – 3g</td>
<td>1 cup puffed rice cereal – 0.25g</td>
</tr>
<tr>
<td></td>
<td>1 medium red pear – 5g</td>
<td>1 cup applesauce – 3g</td>
</tr>
<tr>
<td><strong>Snack</strong></td>
<td>10 almonds – 1g</td>
<td>1 part-skim cheese stick – 0g</td>
</tr>
<tr>
<td></td>
<td>Mini box of raisins – 0.5g</td>
<td>Mini box of raisins – 0.5g</td>
</tr>
<tr>
<td><strong>Lunch</strong></td>
<td>2 cups chicken and broccoli stir-fry (take-out) – 8g</td>
<td>2 cups pork fried rice (take-out) – 5g</td>
</tr>
<tr>
<td></td>
<td>1/2 cup cooked rice white rice (take-out) – 0.5g</td>
<td></td>
</tr>
<tr>
<td><strong>Snack</strong></td>
<td>10 cherry tomatoes – 2g</td>
<td>10 cucumber slices – 0.5g</td>
</tr>
<tr>
<td></td>
<td>1 Tbsp ranch dressing – 0g</td>
<td>1 Tbsp ranch dressing – 0g</td>
</tr>
<tr>
<td><strong>Dinner</strong></td>
<td>1 cup meat and tomato spaghetti sauce – 6g</td>
<td>1 cup meat and tomato spaghetti sauce – 6g</td>
</tr>
<tr>
<td></td>
<td>1 cup cooked whole-wheat pasta – 4g</td>
<td>1 cup regular wheat pasta – 2g</td>
</tr>
<tr>
<td></td>
<td>1/2 cup spinach salad– 0.5g</td>
<td>1/2 cup iceberg lettuce salad – 0.5g</td>
</tr>
<tr>
<td><strong>Snack</strong></td>
<td>2 cups popped popcorn – 2g</td>
<td>1/2 cup chocolate ice cream – 0g</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>32g</td>
<td>18g</td>
</tr>
</tbody>
</table>

*Fiber on some menu items are rounded*
Higher-Fiber Recipes

Barley Parmesan Verde
Serves 4

*For extra flavor, try cooking barley in broth. I serve this often with chicken or pork and side of broccoli and red bell peppers. See how to make this recipe by watching the video.*

1 cup pearl or quick-cooking barley
1 cup salsa verde
1/4 cup parmesan cheese

1. In a large pot, cook barley in water according to package directions, about 20 minutes on quick-cooking barley and 40 minutes on pearl barley. Additional time can be added for pearl barley to increase tenderness. Drain off any excess liquid.
2. Return drained barley to pot. Add salsa verde. Turn heat to medium-low and cook, stirring frequently, until mixture starts to thicken, about 5 minutes.

_Nutrition analysis per serving:_ 220 calories, 3g fat, 450mg sodium, 43g carbohydrate, 9g fiber, 7g protein

Honey Glazed Carrots
serves 6

*If you don’t want to heat up the kitchen using the stovetop, try these glazed carrots from the microwave. Watch the video of this recipe [here](#).*

1 lb fresh or frozen carrots, peeled and diced
1/3 cup water
½ cup orange juice
1 teaspoon cornstarch
2 tablespoon margarine
2 tablespoon honey

1. Place carrots in a microwave-safe casserole dish and add water. Cover and microwave on high for 10 to 12 minutes or until tender, stopping to stir after 6 minutes. Set carrots aside.
2. In a separate microwave-safe bowl, stir the orange juice and cornstarch. Microwave on high for 1 minute, stirring halfway through. Add the butter and honey and microwave for one minute or until the mixture becomes thickened.
3. Drain any liquid from carrots. Add the honey mixture to the carrots and microwave on high, uncovered, for 1 to ½ minutes.

_Nutritional analysis per serving:_ 120 calories, 6g fat, 180mg sodium, 16g carbohydrate, 5g fiber, 2g protein
Higher-Fiber Recipes

Mason Jar Caprese Salad
serves 5

Change up the ingredients to whatever suits your tastes. Screw on the lid tightly so dressing does not escape. See how to make them in the video.

10 Tablespoons balsamic vinaigrette dressing
2 cups whole wheat cooked pasta (elbow macaroni, penne, shells, etc.)
1 qt cherry tomatoes, halved
10 oz fresh mozzarella cheese, cubed
10 cups fresh spinach

1. Divide all ingredients evenly in 5 mason jars beginning with the dressing, pasta, tomatoes, cheese, and ending with the spinach.
2. Tightly close the lid and store in refrigerator until ready to eat (use within four days).
3. When ready to eat, shake the jar to coat the dressing, pour salad into a bowl, and toss with fork.

Nutritional analysis per serving: 330 calories, 15g fat, 490mg sodium, 36g carbohydrate, 7g fiber, 15g protein
Source: Jenna Smith, University of Illinois Extension, Nutrition & Wellness Educator

Contact
Caitlin Huth, Nutrition & Wellness Educator
chuth2@illinois.edu | 217.877.6042
Web: go.illinois.edu/dmp
Facebook: UIExtensionNWDMP