Fluid and Fiber

Fiber is normally ingested in the diet, and part of fiber cannot be broken down. A diet rich in fiber produces soft and more frequent stool and can help with constipation. There are two types of fiber, both of which are important in your child’s diet:

1. **Soluble**
   - Creates larger, softer stool
   - Good sources: beans, fruit, oat products

2. **Insoluble**
   - Increases stool bulk
   - Good sources: whole-grain products and vegetables

**Daily fiber recommendations:**

Use this formula to figure out how much fiber your child needs daily:

- **Minimum:** Child’s age + 5 = grams of fiber needed per day
- **Maximum:** Child’s age + 10 = grams of fiber needed per day

**Example:** Eric is 10 years old. The amount of fiber he needs daily is:

- 10 (his age) + 5 = 15 grams per day, minimum
- 10 (his age) + 10 = 20 grams per day, maximum

Eric needs 15–20 grams of fiber per day.

**Tips to encourage and increase fiber intake:**

- Include a variety of food sources at meal times that contain fiber, such as fruits, vegetables, whole grains, and nuts.
- Slowly increase the amount of fiber your child eats over the course of a few weeks to meet his/her fiber goal. Rapid increase may make the constipation worse or cause gas, cramping, bloating, or diarrhea.
- Drink plenty of fluids. Fiber works best with adequate fluids, which will help soften the stool and make it easier to pass.
- On certain occasions, your physician may recommend over-the-counter fiber supplements (Benefiber, Metamucil, etc.) if dietary fiber is insufficient.
Ways to incorporate fiber at meal and snack times:

<table>
<thead>
<tr>
<th>Meal</th>
<th>Choose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breakfast</td>
<td>• Original rolled oats instead of instant oats</td>
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<tr>
<td></td>
<td>• Whole grain cereals or bran</td>
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<td></td>
<td>• Add sliced apples, peaches, or berries to cereal or oatmeal; keep the skin on for extra fiber</td>
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<td></td>
<td>• Whole wheat flour when making muffins, pancakes, and waffles</td>
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<tr>
<td>Lunch and dinner</td>
<td>• Brown or wild rice instead of white rice</td>
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<tr>
<td></td>
<td>• Whole wheat breads for sandwiches</td>
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<tr>
<td></td>
<td>• Whole wheat pasta instead of white pasta</td>
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<tr>
<td></td>
<td>• Add vegetables to pizza, tacos, and pasta</td>
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<tr>
<td></td>
<td>• Add beans to soups</td>
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<tr>
<td>Snacks</td>
<td>• Popcorn, whole grain pretzels, whole grain fruit and granola bars, and whole grain crackers</td>
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<tr>
<td></td>
<td>• Dried fruit (prunes, raisins, and cranberries)</td>
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<td></td>
<td>• Add fruits and vegetables to smoothies</td>
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<td></td>
<td>• Puree black beans or chickpeas to make dips</td>
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</tbody>
</table>

Choose high-fiber fruits and vegetables at all meal times:

- Eat raw fruits and vegetables with the skin on.
- Choose fresh fruits and vegetables instead of juices.
- Fruits, including green kiwis, dates, figs, pears, apples with skin, prunes, and raisins are helpful for constipation management.

Reading food labels:

![Nutrition Facts]

8 servings per container

**Serving size** 2/3 cup (55g)

**Amount per serving**

- **Calories** 230
- **% Daily Value**
  - **Total Fat** 8g 10%
  - **Saturated Fat** 1g 5%
  - **Trans Fat** 0g
  - **Cholesterol** 0mg 0%
  - **Sodium** 160mg 7%
  - **Total Carbohydrate** 37g 13%
  - **Dietary Fiber** 4g 14%
  - **Total Sugars** 12g
    - Includes 10g Added Sugars 20%
  - **Protein** 3g 10%
    - **Vitamin** 2mcg 10%
    - **Calcium** 260mg 20%
    - **Iron** 8mg 45%
    - **Potassium** 235mg 6%

*The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.

When grocery shopping, read the labels to see how much fiber a product contains. It will list the amount of fiber per serving. The first ingredient listed should be whole grain or whole wheat.

Choosing foods with at least 3 grams of fiber per serving will help your child meet his/her daily fiber goal.
Daily fluid recommendations:

<table>
<thead>
<tr>
<th>Age</th>
<th>Ounces/day</th>
<th>Cups/day</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - 3 years</td>
<td>45 - 50</td>
<td>5.5 - 6</td>
</tr>
<tr>
<td>4 - 8 years</td>
<td>55 - 60</td>
<td>7 - 7.5</td>
</tr>
<tr>
<td>9 - 13 years Males:</td>
<td>80 - 85</td>
<td>Males: 10 - 10.5</td>
</tr>
<tr>
<td></td>
<td>Females:</td>
<td>Females: 8.5 - 9</td>
</tr>
<tr>
<td>14 - 18 years Males:</td>
<td>100 - 110</td>
<td>Males: 12.5 - 14</td>
</tr>
<tr>
<td></td>
<td>Females:</td>
<td>Females: 9.5 - 10</td>
</tr>
</tbody>
</table>

Types of fluid:

1. Water
   - This is the recommended source of fluids.

2. Juice
   - Choose 100% fruit juice – apple, pear, and prune juices can help with constipation.
   - Substitute half of juice with water to increase overall fluid intake.
   - Limit to the following:
     - 1 - 3 years old: up to 4 ounces daily.
     - 4 - 6 years old: up to 4 - 6 ounces daily.
     - 7 - 18 years old: up to 8 ounces daily.

3. Milk
   - 1 - 2 years old: 2 cups daily
     - Offer whole milk.
     - Reduced fat (2%) milk is recommended if obesity is of concern or if there is family history of obesity, dyslipidemia, or cardiovascular disease.
• 2–8 years old: 2 cups daily
  ○ Offer low-fat (1%) or fat-free (skim) milk.
• 9+ years old: 3 cups daily
  ○ Offer low-fat (1%) or fat-free (skim) milk.

4. Sports drinks
• Use only with prolonged, vigorous physical activity (>90 minutes).

5. Soda/energy drinks
• Not recommended for children or adolescents.

Ways to increase fluid intake:
• Flavor water with cut-up fruit, vegetables, or herbs.
• Offer fruits and vegetables that are high in fluids, such as grapes, watermelon, cucumbers, oranges, celery, strawberries, blueberries, and kiwis.
• Include low-sodium broths and soups at meal times.
• Snack on fruit popsicles, Jell-O, or Italian ice.