WHOLE GRAINS

What is a whole grain?
A cereal grain that contains the bran, germ and endosperm qualifies as a whole grain. The bran is the outer layer of the grain which contains B vitamins and fiber; the germ is the nutrient rich embryo which can grow into a new plant and contains B vitamins, antioxidants, minerals and healthy fats; the endosperm is the largest portion of the grain and contains mostly starch. Refined grains only contain the endosperm.

Benefits of eating whole grains
Whole grains are good sources of B vitamins, minerals and fiber. They are naturally low in fat. Eating whole grains may reduce your risk of some chronic diseases such as heart disease, diabetes and certain cancers.

Examples of whole grains
- Barley
- Brown rice
- Buckwheat
- Corn
- Millet
- Oats
- Quinoa
- Rye
- Sorghum
- Wheat
- Wild rice

Nutrient content of some whole grains

<table>
<thead>
<tr>
<th>Whole Grain</th>
<th>Calories per ½ cup (cooked)</th>
<th>Protein (gm)</th>
<th>Carb (gm)</th>
<th>Fat (gm)</th>
<th>Fiber (gm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barley</td>
<td>99</td>
<td>2</td>
<td>23</td>
<td>0.5</td>
<td>3</td>
</tr>
<tr>
<td>Brown rice</td>
<td>108</td>
<td>2.5</td>
<td>23</td>
<td>1</td>
<td>1.8</td>
</tr>
<tr>
<td>Buckwheat</td>
<td>78</td>
<td>3</td>
<td>17</td>
<td>0.5</td>
<td>2.3</td>
</tr>
<tr>
<td>Oats</td>
<td>73</td>
<td>3</td>
<td>13</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Quinoa</td>
<td>115</td>
<td>4</td>
<td>21</td>
<td>1.8</td>
<td>1.8</td>
</tr>
</tbody>
</table>

How much whole grains should a person eat a day?
The U.S. Dietary guidelines recommend that at least 50% of all the grains eaten should be whole grains. We should aim to eat 3-5 servings of whole grains a day.
**What is a serving of whole grain?**

A serving of whole grain can be any of the following:

- ½ cup cooked brown rice or other cooked grain
- ½ cup cooked 100% whole-grain pasta
- ½ cup cooked hot cereal, such as oatmeal
- 1 ounce uncooked whole grain pasta, brown rice or other grain
- 1 slice 100% whole grain bread
- 1 cup 100% whole grain ready-to-eat cereal

**How to include more whole grains in your diet**

- Mix brown rice or other whole grains with white rice when making rice porridge (jook)
- Have oatmeal or millet porridge instead of traditional rice porridge (made from white rice)
- Have brown rice, wild rice or quinoa in place of white rice
- Choose whole wheat noodles or pasta instead of instant noodles, Chinese egg noodles or rice noodles (mei-fun, ho-fun)
- Choose 100% whole wheat bread, crackers or steamed bun instead of white bread, regular crackers or pastry bun
- Add barley to soups
- Choose products with the Whole Grain stamp

For more information about whole grains:

- [http://wholegrainscouncil.org/whole-grains-101](http://wholegrainscouncil.org/whole-grains-101)
- [http://www.healthyeating.org/Healthy-Eating/All-Star-Foods/Grains.aspx](http://www.healthyeating.org/Healthy-Eating/All-Star-Foods/Grains.aspx)