The Super Six – The Benefits of Gluten-Free Whole Grains

**Amaranth - seed**
- Robust, nutty flavor
- High in lysine, an essential amino acid
- High in protein, fiber, calcium, iron, magnesium, phosphorus, potassium, zinc, B vitamins
- Sold as the seed, flour, or puffed
- The seed form can be added to soups, stews, casseroles, risottos, mixed with other grains, or cooked as a hot cereal
- Puffed amaranth can be eaten as cold cereal
- The flour should be mixed with other gluten-free grain flours when preparing breads, cakes or cookies

**Buckwheat - fruit**
- Triangular shape with black shell – the kernel inside the shell is known as a groat
- There are many forms of the groats available for purchase; roasted, unroasted, whole, ground, buckwheat bran, and as flour and baking mixes.
- Roasted groats are also known as Kasha
- High in protein, magnesium, zinc, phosphorus, potassium, niacin, riboflavin, B vitamins, and fiber
- May improve cholesterol and blood pressure
- Can be used as stuffing, side dish, and hot cereal or added to soups, casseroles, pilafs and homemade breakfast bars
- Look for pancake mixes that are labeled 100% pure buckwheat flour for increased nutrients.

**Millet - seed**
- Available in yellow, white, gray or red
- Yellow is the most common in North America and has a sweet, nutty flavor
- Good source of easily digestible protein
- Also provides thiamin, riboflavin, niacin, vitamin B6, folate, fiber, iron, magnesium, and zinc
- Puffed millet can be used as a breakfast cereal or crushed for use as a breading
- Whole millet can be boiled for a side dish, hot cereal or mixed with other grains to form a pilaf.

**Sorghum - cereal grain**
- Also known as milo
- High in phosphorus and potassium
- Also a good source of fiber, protein, thiamin, niacin, vitamin B6, and iron
- Can be used in casseroles, pilafs, stuffing, salads and soups or use in place of rice in rice pudding for increased nutrient content
- Sorghum flour is best when combined with bean or amaranth flours in baking.
Teff – grain from cereal grass

- Has a nutty, molasses-like flavor
- Since this grain is so small, the bran and germ make up a greater percentage of the grain. The germ and bran are where many of the nutrients are contained which is one reason teff is so nutrient-rich.
- High in calcium, iron, magnesium, thiamin and zinc
- Also a good source of fiber, protein and B vitamins
- Does not increase in size as it cooks so it is best mixed in with other foods such as soups, cereals and other grains
- Use in hot cereals, scones, pancakes, or veggie burgers
- Try mixing ¾ cup teff with 1 cup brown rice. Cook them as you would plain rice.

Quinoa - seed

- Comes in many colors such as purple, red, white, and black
- Is sold in several forms including seed, flakes, flour, and pasta
- Has more high-quality protein than all other grains or cereals. The protein in this grain is a complete protein meaning it contains all essential amino acids.
- High in iron, magnesium, phosphorus and zinc
- Also a good source of calcium, B vitamins and fiber
- Use to make “tabbouleh”, side dishes, hot cereal, or stuffing
- The flakes can be eaten as a cold cereal
- Use the pasta in place of rice pasta for increased nutrition

Helpful Information:

- All gluten-free grains must be labeled gluten-free.
- Rinse all grains well before cooking.
- Drink plenty of water (48-64 ounces per day) as you add more of these grains into your diet due to their high fiber content.
- Use a gluten-free cookbook when using gluten-free flours to make baked goods. To achieve good quality in the finished product, the amounts and mixtures of flours is important.
- Do not purchase these grains from bulk bins to prevent cross contamination.
- Cook all grains well and according to the package directions before eating them.
## The Facts (1 cup cooked)

<table>
<thead>
<tr>
<th></th>
<th>Carbohydrates (g)</th>
<th>Fiber (g)</th>
<th>Protein (g)</th>
<th>Iron (mg)</th>
<th>Magnesium (mg)</th>
<th>B vitamins</th>
<th>Calcium (mg)</th>
<th>Zinc (mg)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Amaranth</strong></td>
<td>46</td>
<td>5</td>
<td>9</td>
<td>5.2</td>
<td>160</td>
<td>Folate (54mcg)&amp; B6 (0.28mcg)</td>
<td>116</td>
<td>2.1</td>
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<tr>
<td><strong>Buckwheat Groats</strong></td>
<td>34</td>
<td>5</td>
<td>6</td>
<td>1.3</td>
<td>86</td>
<td>Niacin 1.6 mg</td>
<td>12</td>
<td>1.0</td>
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<tr>
<td><strong>Millet</strong></td>
<td>41</td>
<td>2</td>
<td>6</td>
<td>1.1</td>
<td>77</td>
<td>Thiamin (0.18mg)&amp; Niacin (2.3mg)</td>
<td>5</td>
<td>1.6</td>
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<tr>
<td><strong>Sorghum (whole grain)</strong></td>
<td>46</td>
<td>4</td>
<td>7</td>
<td>2.2</td>
<td>106</td>
<td>Thiamin (0.21 mg)</td>
<td>8</td>
<td>1.1</td>
</tr>
<tr>
<td><strong>Quinoa</strong></td>
<td>39</td>
<td>5</td>
<td>8</td>
<td>2.8</td>
<td>118</td>
<td>Folate (78 mcg)</td>
<td>31</td>
<td>2.0</td>
</tr>
<tr>
<td><strong>Teff</strong></td>
<td>50</td>
<td>7</td>
<td>10</td>
<td>5.2</td>
<td>126</td>
<td>Folate (45 mcg)</td>
<td>123</td>
<td>2.8</td>
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<td><strong>Brown Rice(long grain)</strong></td>
<td>52</td>
<td>3</td>
<td>6</td>
<td>1.1</td>
<td>79</td>
<td>Niacin (5.2 mcg)</td>
<td>6</td>
<td>1.2</td>
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<tr>
<td><strong>White Rice (unenriched)</strong></td>
<td>45</td>
<td>&lt;1</td>
<td>4</td>
<td>0.3</td>
<td>19</td>
<td>Folate (5 mcg)</td>
<td>16</td>
<td>0.8</td>
</tr>
</tbody>
</table>

*All nutrition facts are based off of a serving size equaling 1 cup cooked except where specified.
*Percentages are based off of the Recommended Daily Values for a 2,000 calorie diet.

### Where Do I Find and Buy These Gluten-free Grains?

- Stores: Whole Foods, Trader Joe’s, Wegmans, Hannefords, Costco, BJ’s, Shaw’s, Stop and Shop, other supermarket chains, and health food stores
  - [www.ancientharvest.com](http://www.ancientharvest.com) – Selection of gluten free grains, grain blends, and pastas
  - [www.bobsredmill.com](http://www.bobsredmill.com) (click on Gluten-free) - Gluten-free products from grains to flours to baking mixes.
  - [www.mygerbs.com](http://www.mygerbs.com) – Allergy-friendly seeds, flours, dried fruit, gluten-free grains, herbs and seasonings
  - [www.nuts.com](http://www.nuts.com) (click on gluten-free tab) – Certified gluten free flours, grains, baking mixes, nuts, seeds & snacks
  - [www.quinoa.net](http://www.quinoa.net) – Quinoa-based flour, flakcs, pasta, and polenta as well as black and red quinoa; offers many recipes, tips, and ideas for cooking with quinoa.
  - [www.teffco.com](http://www.teffco.com) – Teff and teff flour; recipes

Celiac Center, Beth Israel Deaconess Medical Center, Revised May 2019
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