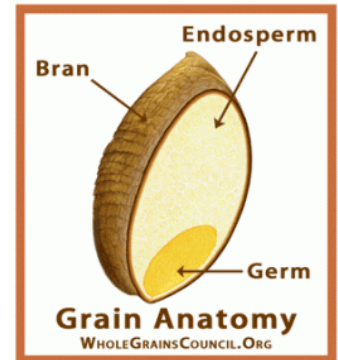


Bite Into Whole Grains

Whole grains are the intact kernels after the removal of inedible parts, which nearly all nutrients remain.

The picture on the right shows the components of whole grains - the starchy endosperm, germ (full of antioxidants) and bran (rich in fiber and B vitamins).

If the nutrient rich bran and germ are removed, the grain is called a refined grain, which 2/3 of many essential nutrients are lost. Even refined grains can be enriched or fortified with iron and B vitamins (thiamin, folic acid, riboflavin, niacin); they still lack of many nutrients.



List of whole grains

The following examples of whole grains include whole grain foods and flours.

- Amaranth
- Barley
- Buckwheat
- Corn (whole cornmeal and popcorn)
- Millet
- Oats (including oatmeal)
- Quinoa, Rice (brown rice)
- Rye
- Sorghum
- Teff
- Triticale
- Wheat (including spelt, emmer, farro, einkorn, kamut, bulgur, cracked wheat and wheat berries)
- Wild rice.

☺ How to identify whole grain products?

- Look the ingredient list. The word "whole" should appear as the first ingredient, such as whole wheat or whole grain.



Whole grains and Health

The high fiber content of whole grains keeps your body feeling full, and helping you avoid overeating. Studies find that eating whole grains can lower the risk of:

- Stroke by 30 -36%
- Type 2 diabetes by 21 -30%
- Heart disease by 25-28%
- Asthma
- Inflammatory disease
- Colorectal cancer
- High blood pressure
- Dental diseases.

The Dietary Guidelines for Americans recommend all adults eat at least half their grains as whole grains – that's at least 3 to 5 servings of whole grains per day (2-3 servings for children per day).

Mysterious Whole Grains

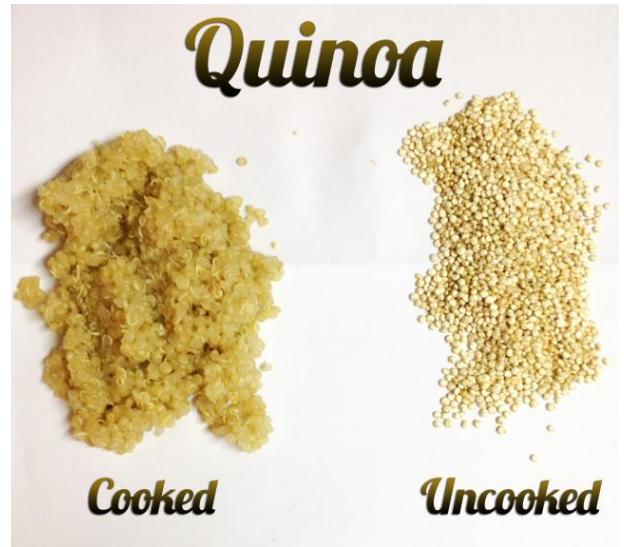
Some whole grains are not well known, but they hold important nutritional value and health benefits that we should be aware. Here are some examples:

Quinoa

Quinoa is known as an “ancient grain.” it can be almost any color, from red, purple and orange to green, black or yellow.

It is one of the only plants foods that contain complete protein with essential amino acids. Quinoa has the highest level of potassium among all the whole grains. Studies have found that it may be useful in reducing diabetes risk and controlling blood pressure. Quinoa is naturally gluten free, which makes it safe for people with celiac disease.

Cooking Tips: Quinoa is ready to eat in just 15 minutes. When it is done, you’ll see the little white tail (the germ of the kernel) sticking out. Picture of quinoa cooked vs. uncooked ☺



Bulgur

Bulgur is a type of whole wheat that has been processed and ground into several distinct sizes grains. Durum is the most common bulgur.

Bulgur is relatively higher in fiber than quinoa, oats, millet, buckwheat or corn, making it good for weight maintenance. And bulgur has the same health benefits as other whole wheat foods, including reducing the risk of stroke, diabetes, heart disease, asthma, high blood pressure and more.

Cooking Tips: Bulgur only needs to be boiled about 10 minutes to be ready to eat. This feature makes bulgur good for quick side dishes, pilafs or salads. Uncooked (top) and cooked (bottom) ☺



Barley (Hull-less and hulled)

Whole grain barley includes: Hulled barley, Hull-less barley, Barley grits, Barley flakes, and Whole grain barley flour. Not include pearly barley or quick pearly barley.

Barley has the highest fiber content of all the whole grains, some of the varieties can contain up to 30% fiber. Studies have found that the high level of soluble beta-glucan fiber in barley reduces cholesterol, helps control blood sugar, and improves immune system function. A recent study shows that beta-glucan may be radioprotective, which may help our bodies better tolerate chemotherapy, radiation therapy and nuclear emergencies. Barley, even pearl barley- may reduce visceral fat and waist circumference.

Cooking Tips: Whole grain barley may need 50-60 minutes to cook, the easy way is to cook a big batch then refrigerate it or freeze it until needed. Picture of uncooked vs. cooked ☺



Buckwheat

Buckwheat groats is shaped almost like a pyramid. It contains high levels of zinc, copper, and manganese. It also contains a very high protein level, which is the second highest in grains.

Buckwheat protein isolate may be a useful functional food ingredient to treat hypertension, obesity, and constipation. The buckwheat flavonoid compound –rutin, help control blood pressure and has anti-inflammatory and anti-carcinogenic properties. Buckwheat is also naturally gluten free, which is safe for people with celiac disease.

Cooking Tips: Buckwheat can be used in different culture cuisines in forms of soba noodles, buckwheat flour, blinis, Galettes, Kasha, and pancake. Cooked vs. Uncooked ©



Millet

Millet is the world’s sixth most important grain. It is a group of several different small-seeded grains and typically yellow in color. Four different millets are mostly common in different cultures worldwide: Pearl millet, foxtail millet, proso millet, and finger millet (ragi in India).

Millet is a gluten free grain, which is safe for people with celiac disease. It is high in antioxidant activity and magnesium. Recent studies find that it is helpful in controlling diabetes and inflammation. Some studies also show that foxtail millet may help control blood sugar and cholesterol.

Cooking Tips: Recommend cooking each cup of millet grain with 2.5 cups of liquid. It can be made into pilafs, breakfast cereals, breads, soups, salad, or stews. Uncooked (top) vs. Cooked (bottom) ©



Reference: Whole Grains Council