

TYPES OF WHEAT FLOUR

AN EASY-TO-REFERENCE GUIDE FOR HOME BAKERS

FLOUR. IT IS ONE OF THE MOST IMPORTANT INGREDIENTS IN HOME BAKING, IF NOT THE MOST IMPORTANT. ITS ORIGINS GO BACK TO THE BEGINNINGS OF CIVILIZATION. HOW CAN SO MANY DIFFERENT TYPES OF WHEAT FLOUR COME FROM JUST THIS ONE GRAIN?

There are six different classes, or types, of wheat. Each class is used for specific purposes to get the best possible finished product. Hard red and hard white wheat is best for yeast breads. Soft wheat is best used in cakes, pastries and other baked goods, as well as crackers and cereal. Durum wheat is the hardest of all wheat and makes the best pasta. This information will explain the different types of flour and how they are best used.





ALL-PURPOSE FLOUR: This flour is the most widely used of all flours. It comes from the finely ground part of the wheat kernel called the endosperm, which gets separated from the bran and germ during the milling process. It is made from a combination of hard and soft wheat, hence the term all-purpose. This type of flour can be used universally for a wide range of baked products – yeast breads, cakes, cookies and pastries.

All-purpose flour has iron, and four B-vitamins (thiamin, niacin, riboflavin and folic acid) added in amounts equal to or exceeding what is present in whole wheat flour. Virtually all white flour sold in the United States is enriched (over 95%). There is no change in taste, texture, color, baking quality or caloric value of enriched flour.

BREAD FLOUR is milled primarily for commercial baking use, but can be found at most grocery stores. While similar to all-purpose flour, it has a higher gluten content, which is optimal in making yeast breads.

SELF-RISING FLOUR: This is a type of all-purpose flour that has salt and a leavening agent added. One cup contains 1 ½ teaspoons of baking powder and ½ teaspoon salt. Self-rising can be substituted for all-purpose flour in a recipe by reducing salt and baking powder according to these proportions. It is commonly used in biscuits and quick breads or even cookies, but is not recommended for yeast breads.

***CAKE FLOUR:** This is a fine-textured, almost silky flour milled from soft wheat and has a low protein content. It is used to make all types of baked goods like cakes, cookies, crackers, quick breads and some types of pastry. Cake flour has a higher percentage of starch and less protein than bread flour, which keeps cakes and pastries tender and delicate. (One cup of cake flour can be made by measuring 1 cup all-purpose flour, removing 2 tablespoons of flour and replacing that with 2 tablespoons of cornstarch.)



***PASTRY FLOUR:** This type of flour has properties that fall between all-purpose flour and cake flour. It is usually made from soft wheat for pastry making, but can be used for cookies, cakes, crackers and similarly baked products. It has a slightly higher protein content than cake flour and less starch.

SEMOLINA: This is the coarsely ground endosperm of durum wheat. Durum wheat is the hardest variety of the six classes of wheat and has the highest protein content of all wheat. Because of this, it's ideal for making high-quality pasta and is used by both American and Italian manufacturers. It's also used to make couscous in Africa and Latin America, as well as in the U.S. Durum wheat is rarely used to make bread.

DURUM FLOUR is a by-product in the production of semolina. It is usually enriched with four B vitamins and iron, and used to make noodles.

***NOTE:** Both cake and pastry flours have a soft, satiny, very fine texture and are available in either enriched or whole wheat form. Whole wheat will yield a more dense product. Commercially made cake flour or cake mix will have differing results than the homemade substitutions stated here.



****WHOLE WHEAT FLOUR:** This flour is milled from the entire kernel of wheat. The presence of bran reduces gluten development, therefore, items baked with whole wheat flour tend to be heavier and more dense than those made from enriched flour. Bakers often add additional gluten to counteract this. (one tablespoon/cup of whole wheat flour used)



****NOTE:** Whole wheat, stone ground and graham flours can be used interchangeably in recipes. They are produced by either grinding the entire kernel of wheat or by combining the white flour, germ and bran that have been separated during the milling process. The only difference is in the coarseness of the flour, which may differ from one flour company to another.

****GRAHAM FLOUR:** This also is coarsely ground whole wheat flour. It is named after Dr. Sylvester Graham, the creator of the graham cracker, who advocated the use of whole wheat flour in the early 1800s.

****STONE GROUND:** This is a type of whole wheat flour that has been milled by crushing the kernel between two rotating stones. There is no nutritional difference or advantage to milling the flour in this manner.

HIGH-GLUTEN FLOUR:

This has a high protein content usually milled from hard spring wheat. It is used primarily to mix in with other non-wheat or low protein wheat flours to produce a stronger dough structure. Gluten improves baking quality and produces a high protein bread.



OTHER WHEAT PRODUCTS

CRACKED WHEAT, also known as kibbled wheat, is made by cracking the entire wheat kernel into small pieces, but is not precooked. Cracked wheat can be added to baked goods which adds a crunchy texture and nutty flavor to breads.

BRAN is the outer layer of the wheat kernel and is sometimes added to baked products. While noted for its high fiber content, it also is rich in phytochemicals that contribute to good health.

WHEAT GERM is the inner part (known as the heart) of the wheat kernel. It is very rich in vitamins and minerals and is often added to a variety of baked goods to improve their nutritional value. Because it contains oil, it is the component of whole wheat flour that makes it more susceptible to rancidity.

CRUSHED WHEAT is also a standard whole wheat product. Crushed wheat is made when the milling process first tempers cleaned wheat to a higher moisture level. This softens the kernels before they pass through a set of smooth rollers. The wheat berries are literally flattened and very little flour is released.

ROLLED WHEAT is similar to crushed wheat but is thinner and smaller. It is not tempered as long as crushed wheat and the wheat berries are cracked before being rolled. Due to the initial cracking, a little more flour is released. Crushed wheat and rolled wheat are often used in multi-grain and specialty brands.

BULGUR is made by soaking and cooking the whole wheat kernel, drying it and then removing a small fraction of the bran and cracking the remaining kernel into small pieces. It is often referred to as par-cooked. It can be reconstituted and added to baked products, salads, desserts, or used as a meat extender.



FARINA is coarsely ground endosperm of hard wheat varieties, but not durum. It is the prime ingredient in many hot breakfast cereals. It can also be used to make pasta.