

Chow Line

News from the College of Food, Agricultural, and Environmental Sciences

You can't judge a whole grain by its color

I have seen “white whole wheat” bread and high-fiber white pasta products for years now, but I’ve always been a little suspect. Aren’t true whole-grain products darker in color because of the bran?

Yes and no. Not all darker-colored breads are whole grain. Not all white breads are refined grain. And not all white pastas are low in fiber. You just can't judge a grain product by its color — you need to look at the label.

This is important because if you're like most Americans, you're not consuming nearly enough whole grains or fiber. According to a 2014 study in the journal *Nutrition Research*, only 8 percent of adults eat the recommended amount of three servings of whole grains each day. And a 2014 U.S. Department of Agriculture study reported that average fiber intake is just 16 grams a day, far short of the 25 grams a day recommended for women and 38 grams a day for men.

Whole grains contain 100 percent of the original kernel — the bran, germ and endosperm — while refined grains contain just the endosperm. Several B vitamins, including thiamin, riboflavin, niacin and folate, and minerals including iron, magnesium and selenium, are stripped from whole grains when they're refined. Although refined grains are normally enriched with vitamins and minerals and get back much of what was lost, whole grains still contain a richer nutritional profile of antioxidants, B vitamins, protein, minerals, fiber and healthful fats than those that are refined.

To figure out if your bread and pasta are whole grains, look at the food label. First, review the ingredients list. The first item should start with the word “whole”: whole wheat, for example, or whole



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rye, whole oats or whole grain wheat flour. Be wary of terms such as “100 percent wheat,” “multi-grain” or “cracked wheat” on the package. If it doesn't have the word “whole,” it's not a whole grain, whether it's brown, tan or white in color.

Most breads are made from hard red winter wheat, and you're right in thinking that whole-wheat bread made from that type of wheat is darker in color. But about 10-15 percent of wheat grown today in the U.S. is white wheat, and some of that, called hard white wheat, is often used to make whole wheat white bread. Hard white wheat began being developed in the U.S. at Kansas State University in the 1960s, and started being grown on a more widespread basis in the 1990s and 2000s.

Pasta, on the other hand, is made from durum wheat, which lends a darker color to whole-grain varieties. In the last few years, some brands of high-fiber white pasta have landed on grocery store shelves. They may not contain 51 percent whole grain — the minimum required by the Food and Drug Administration for a whole-grain health claim on the label — but they have additional ingredients added during processing to boost the fiber content, such as oat fiber or a special high-fiber cornstarch. Again, look at the ingredients listing to know what's in the product.

For more about whole grains, see www.choosemyplate.gov/grains-nutrients-health.

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Editor: This column was reviewed by Colleen Spees, registered dietitian and assistant professor with Ohio State University Extension and The Ohio State University's Division of Medical Dietetics and Health Science.

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