

Fiber

Your Body's Broom

Your ancestors probably consumed more fiber than you do! Before the days of advanced milling technology, gristmills ground wheat, corn, and other grains into meal or flour. Using the power of a moving river, grain was milled between two coarse stones. Then it was sifted to remove the inedible chaff, or husk, leaving all the edible parts of the grain. The bran and the germ that contain fiber and many essential nutrients remained. Whole grains were the only grains people know. In some parts of the world, that's still true today; in fact, some people still pound their grain by hand to make flour.

As technology improved, the bran and the germ were separated and removed, leaving the refined white flour. With this new process came new status. White bread with its softer texture and high-class appeal became more desirable than coarser, darker bread. But it was more expensive and only available to those who could afford it. For the same reasons, white rice became more desirable than brown rice. Simply put, refined was "in"!

With this switch to refined grains, however, people became short-changed on many nutrients - including fiber - without knowing it. In the 1940's, recognizing the health consequences, manufacturers began enriching many grain products. Now, some nutrients lost during processing - thiamin, riboflavin, niacin, and iron - are added back. In some, fiber is added back, too. Since the late 1990's, enriched grain products have also been fortified with folic acid.

Only with the past thirty or so years have health experts realized that fiber offers more than bulk to food. It's loaded with health benefits; science continues to discover more. Today whole-grain products along with other fiber-rich foods - vegetables, fruits and legumes - are "in" again!

Just what is fiber - and how does it promote health?

Fiber: An Important Nonnutrient

We talk about fiber in a single component of food, but it's not that simple. Actually, "fiber" is a general term, referring to complex carbohydrates that your body cannot digest or absorb into your bloodstream. Instead of being used for energy like other carbohydrates, fiber is eliminated.

Because fiber can't nourish your body, it's not a nutrient. But as a phytonutrient, it's still a component of food that promotes your good health in many other ways.

Fiber: Just What Is It?

Plants - and foods of plant origin - count on fiber for their shape. It's fiber that gives celery its rigid stalk and gives spinach the strong stems that hold up its leaves. That same structure "bulks up" the contents of our intestine.

Like starch, most fibers are made of sugar units, so they're actually polysaccharide. But unlike starch, fiber's chains of sugars can't be digested in the human body into simple sugars.

In dairy cows, bacteria in digestive juices break down fiber in their grassy meals, providing energy they need to produce milk. However, human digestive enzymes cannot break fiber into units that are small enough for absorption. That's why fiber can't be converted into energy, or calories, in your body. That very quality gives fiber its own unique roles in keeping you healthy. (Technically, your body can digest very small amounts of some fibers. But the amount is too small to count.)

Although not well studied, some nondigestible carbohydrates also come from animal-based foods. This type of fiber may have beneficial effects on human health, too.

Not All Fibers Are Alike!

Soluble and insoluble: two types of fiber with two different missions! What makes them unique? Soluble fiber dissolves in water, and insoluble fiber doesn't. These differing qualities allow them to keep you healthy in different ways.

Insoluble Fiber: Aid to Digestion

Insoluble fiber: you know it as "roughage." This group of fibers - cellulose, hemicellulose, and lignin - gives structure to plant cell walls. Wheat bran, for example, is high insoluble fiber.

Although they don't dissolve, insoluble fibers do hold on to water. And they move water through the intestinal tract without being digested themselves, earning fiber its title as "nature's broom." By adding bulk and softness to stools, insoluble fibers promote regularity and help prevent constipation. By moving waste through the colon, insoluble fibers decrease transit time. That's the time that potentially harmful substances in food waste linger in intestines and come in contact with the intestinal lining.

Soluble Fiber: Protective Benefits

Soft, liquid foods may have, too. Surprised? Instead of giving a coarse texture to food, soluble fibers, such as

What Is a Whole Grain?

A whole grain is the entire edible part of any grain: wheat, corn, oats, and rice, among others. In the life cycle of plants, it's the seed from which other plants grow. Nutrients in these seeds supply the first nourishment for the plant... before the roots are formed. The whole grain, or seed, contains three parts: endosperm, bran, and germ.

The **bran** makes up the outer layers of the grain. It supplies large amounts of B vitamins, trace minerals, and dietary fiber.

The **endosperm**, which is the inner part of the grain, has most of the proteins and carbohydrates, and just small amounts of vitamins and minerals. White flour is ground from the endosperm.

The **germ** is small but very important. It sprouts, generating a new plant. It has B vitamins, trace minerals, and some proteins.

It's clear why whole-grain products have more fiber; the bran and the germ supply most of the fiber. When flour is milled to produce white flour, only the grain's endosperm remains. Both the fibrous bran and the germ are removed - along with important nutrients and phytonutrients, including fiber.

those in oat bran, dissolve to become gummy or viscous. They're often used in low-fat and nonfat food to add texture and consistency. Fibers called gums, mucilages, and pectin are all soluble.

If you've ever made jam or jelly you're probably familiar with pectin. Pectin gives them their thick, gel-like consistency. In your body, pectin plays a different role, binding to fatty substances and promoting their excretion as waste. This quality seems to help lower blood cholesterol levels. Soluble fibers also help regulate the body's use of sugars.

Fiber's "Benefit Package": A Closer Look

Unlike many nutrients, life doesn't depend on fiber - but your overall health may! Fiber's "benefit package" not only promotes health, it also may help reduce the risk of some chronic diseases. That's one reason why the Dietary Guidelines for Americans encourage consumption of a variety of grains, especially whole grains, as well as fruits and vegetables, daily.

Fiber: Bundled with Nutrients and Phytonutrients

Fiber isn't a "lonely" component of foods. And fiber benefits in food can't be easily separated from the contributions of other nutrients and plant substances.

Most foods with significant amounts of fiber - and as legumes, whole-wheat bread, strawberries, and Brussels sprouts - are packed with carbohydrates (complex or simple) and other essential nutrients. For example, many

fruits and vegetables contribute antioxidant vitamins (beta carotene and vitamin C) which may help protect against some types of cancer. Whole grains also contain antioxidant nutrients (such as vitamin E and selenium), iron, magnesium, zinc, and B vitamins. And legumes supply protein as well as B vitamins and iron. Foods with more fiber often have less fat, too.

Most fiber-rich foods are loaded with phytonutrients that offer a wide range of health-promoting benefits. Consider this: besides fiber, whole-grain foods supply lignan, which may block estrogen activity in cells and perhaps reduce the risk of breast, ovarian, colon and prostate cancer. Whole grains also supply phytic acid, which, by binding to minerals, may prevent free radicals from forming and perhaps reduce cancer risk.

Avoiding the Trio: Constipation, Hemorrhoids, Diverticulosis

You already read about the benefits of insoluble fiber - the kind in wheat bran. It holds on to water, helping to soften and add bulk to waste in the intestines. This action helps stools pass through the digestive system more quickly with normal frequency and ease. As a result, fiber helps prevent constipation and the discomfort that goes with it.

When soft stools easily pass out of the body, there's no need for strained bowel movements. As a result, hemorrhoids - a painful swelling of the vein near the anus - are less likely to form. Softer, bulkier stools put less pressure on the colon walls and so reduce the chance of hemorrhoids, too. With diverticulosis, tiny sacs form when the intestinal wall, especially in the colon, gets weak. These sacs may become infected and quite painful, a problem called diverticulitis.

Which Bread Is Whole Grain?

Being brown doesn't make bread whole wheat! Terms such as "7 grain" or "multigrain" are no assurance, either. It's true that whole-grain breads are browner than breads made with refined white flour. However, in some brown bread, the rich brown color comes instead from coloring, which is listed on the label, usually as "caramel coloring."

By law, any bread labeled "whole-wheat" must be made from 100 percent whole-wheat flour. "Wheat bread," however, may contain some white refined flour and some whole-wheat flour; proportions vary from product to product. With a little label reading, you can get a general idea of the amounts of each type. The flour listed first in the ingredient list is present in the greater amount.

To find breads with more fiber, check the Nutrition Facts and the ingredient list on food labels. Look for those made mainly with whole-wheat flour or other whole-grain flour.

Cancer Connection?

Eating plenty of fiber over the years may help prevent cancers, such as colorectal cancer. About thirty years ago scientists noted that these cancers were more common in Western countries where people ate less fiber. Today the majority of research studies show strong evidence linking fiber-rich foods (vegetables, fruits, and whole grains) to cancer prevention, although their protective role isn't yet clear.

Two recently published studies disputed the link between vegetables and colon cancer prevention. However, study participants consumed fewer than the recommended five vegetable and fruit servings daily. To reduce cancer risk, nutrition experts advice more: five or more vegetable and fruit servings daily. According to the American Institute of Cancer Research: "Evidence that diets rich in vegetables protect against cancers of the colon and return is convincing."

A high-fiber diet may help reduce cancer risk in several ways: (1) by speeding the time it takes for waste to pass through the digestive tract, (2) by forming a bulkier, heavier stool, and (3) by controlling the intestinal pH balance (the level of acidity or alkalinity). Slow movement of food waste through the digestive tract allows more time for potentially harmful substances to come in contact with intestinal walls. Bulkier stools help dilute the concentration of potential carcinogens. And insoluble fibers keep the pH at a level that reduces the ability of intestinal microbes to produce carcinogens. Is it fiber that protects? Or is it something else? It's difficult to know. Many fiber-rich foods supply plenty of nutrients, including antioxidant nutrients and phytonutrients. The anticancer power of fiber-rich foods may come from the interaction or the additive benefits of their many substances. In addition, a high-fat diet is associated with the risk of colon cancer. Since a high-fiber diet is usually lower in fat, it may be another reason why cancer risk seems to go down among people who eat more fiber.

"Waistline Watchers"

Fiber-rich foods may help your body keep trim! Often they're low in calories and fat. Because they take longer to chew, fiber-rich foods may help slow you down, so you eat less. With their added bulk, they help you feel full longer, making you less inclined to nibble too soon after eating. Fiber itself can't be fattening or provide calories - it isn't digested.

To make a fiber-rich diet work for your waistline, remember to keep your calorie intake low at the same time. (An active lifestyle is important too.)

Help for People with Diabetes

For people with diabetes, soluble fibers - especially pectin and gums - may perform another important function. By helping to control the rise of blood sugar

Your Nutrition Checkup

What's Your Fiber Factory - in Your Food Choices?

That's up to you - and what you choose to eat. If you had a choice, which would you pick for your meals or snacks?

1 medium unpeeled apple	or	1/2 cup applesauce
1 slice whole-wheat bread	or	1 slice white bread toast
3 1/2oz cooked meat patty	or	1/2 baked beans
1/2 cup bran flakes	or	1/3 cup corn flakes
1 carrot stick	or	1 bread stick
1/2 cup white rice	or	1/2 cup brown rice
1/2 cup strawberries	or	1/2 cup grapes
1/2 cup spinach	or	1/2 cup peas
2 figs	or	2 dried plums
2 tbsp bean dip (hummus)	or	2 tbsp sour cream
1/2 cup orange juice	or	1 orange
1 baked potato with skin	or	1/2 cup mashed potatoes
1 tbsp. wheat germ	or	1tbsp. wheat bran

Now check your answers...

For each pair, these foods contain more fiber: unpeeled apple, whole-wheat bread, baked beans, bran flakes, carrot stick, brown rice, strawberries, peas, peanuts, figs, bean dip *hummus), orange, baked potato with skin, and wheat bread.

Give yourself 5 points each time you check the higher-fiber choice; 70 points is the highest score you can get. The higher your score, the more fiber in your diet - if these foods truly would be your "picks" of the day.

levels after a meal, soluble fibers may reduce the need for insulin, or medication, for some people. Incorporating at least one or two servings of beans, oats, or other sources of soluble fiber as part of a total fiber intake of 20 to 35 grams per day may help to lower fasting blood sugar levels in some people with diabetes.

The reason why soluble fibers help lower blood sugar levels isn't fully understood. Perhaps it's because fiber makes the stomach contents more viscous (more sticky and gummy) and so prolongs its emptying time. Because carbohydrates break down more slowly, sugar is released and absorbed more slowly, too. That in turn slows the rise of blood glucose levels.

If you have diabetes and want to use more soluble fiber to help control blood sugars, talk to a registered dietitian.

Fiber - Heart Healthy, Too!

Another potential benefit: Soluble fibers (mostly beta glucan and pectin) may help lower the level of total blood cholesterol, mainly by lowering LDL cholesterol, or "bad" cholesterol. In the small intestine, soluble fiber

acts like a sponges, binding cholesterol-rich bile acids. As a result, they can't be reabsorbed, but instead pass through the intestine as waste. As a result, the body absorbs less dietary cholesterol, and the liver pulls more cholesterol from the blood to replace the lost bile acids. That makes blood cholesterol levels drop.

Years of research with different groups of people show that soluble fibers in beans, psyllium, oats, flaxseed, and oat bran seem to help lower blood cholesterol levels in some people. In fact, there's enough sound research for the U.S. Food and Drug Administration to allow foods to carry health claims linking oats or psyllium with heart health. Those same high-fiber diets were lower in fat, too. What's more, these foods have other substances besides fiber that may affect the way the body uses lipids (fats). Yet another benefit: Fiber-rich foods may displace fattier foods in meals and snacks.

The benefits of fiber-rich foods for heart health are truly complex. Until more is known about lowering blood cholesterol levels, continue to consume fiber-rich foods of all kinds; decrease your intake of fat, especially saturated fat; maintain a healthy weight; and live an active lifestyle.

Tip: You need to consume a lot of soluble fiber for heart-healthy benefits. Research suggests that it takes 3 grams of beta glucan a day for a cholesterol-lowering effect. Here are some equivalents: 1 1/2 cups of cooked oatmeal, or 1 1/2 cups of some ready-to-eat oat bran cereals, or 3/4 cup of uncooked oatmeal (added to meat loaf, salmon cakes, muffin batter, or as a topping for yogurt or fruit), or a combination.

Intestinal Gas: Part of Fiber's "Action"

Intestinal gas is a common complaint - and a normal side effect - of eating a high-fiber diet. If your eating plan has been typically low in fiber, minimize the dis-

Have You Ever Wondered?

Which one to buy: wheat germ or wheat bran?

They're two different parts of the grain, so their benefits differ. The germ is the nutrient-rich inner part, and the bran is the outer coating. From a nutritional standpoint, 1 ounce (1/2 cup) of wheat bran has a lot more fiber, about 13 grams, than 4.4 grams of fiber in 1 ounce (1/4 cup) of wheat germ. Wheat germ has more protein, and more of some vitamins and minerals.

What psyllium is?

(When you pronounce it, the "p" is silent) Psyllium - high in soluble fiber - is a seed husk used in some bulk-forming natural laxatives; it also has cholesterol-lowering qualities. Some supplements have it. Its source is plantago, a plant that grows in India and the Mediterranean. Although some people may be allergic to psyllium, in moderate amounts it's safe for most people.

comfort that comes with "bulking up." Increase your fiber intake slowly over several months. Drink enough water, too, to help reduce the effects of intestinal gas and prevent impacted stools.

People especially complain - and sometimes joke - about beans and vegetables in the cabbage family: "They give me gas!" Gas forms in the intestines because humans lack the right enzymes to digest certain carbohydrates, leaving people feeling gassy and bloated. Other foods or ingredients reported to cause gas for some include milk, wheat germ, onions, carrots, celery, bananas, raisins, dried apricots, prune juice, and sorbitol. Sorbitol, which is slowly digested, is actually a sugar alcohol, not a sugar.

There are some techniques that may help to tame the gas caused by beans.

- When preparing dry beans, soak them overnight, then discard the soaking water. Some gas-producing carbohydrates get absorbed in the soaking water. For cooking the beans, use fresh water.
- Allow enough time to cook dried beans thoroughly. That makes them easier to digest.
- If bean dishes or other foods cause gas, take smaller helpings.
- "Degas" canned beans by draining off the liquid and rinsing the beans well. That also reduces the sodium.

If you need more relief from intestinal gas, several non-prescription products may help. Products containing charcoal, which are taken at the end of a meal, help absorb fast in the intestines. They can interfere with the absorption of medications, however, and are not recommended for children. Products with a food enzyme called alpha-galactosidase help convert gas-producing carbohydrates to more easily digestible sugars. They're sold in the form of tablets or drops taken before a meal. Products with simethicone help relieve gas symptoms but do not prevent them. This substance works by breaking large pockets of gas in the intestines into smaller bubbles.

Be aware that other gas-reducing or gas-preventing products are sold, some with questionable claims. You're wise to check with your doctor before using any gas-reduction products.

Fiber: How Much Is Enough?

If you're like most Americans, your day's meals and snacks come up short on fiber, supplying only about half the amount your body needs.

For their health benefits, many experts recommend eating more - 20 to 35 grams of fiber daily. Unlike many vitamins and minerals, there's been no Recommended Dietary Allowance (RDA) for total fiber intake - or for amounts of insoluble fiber. For children (starting at age

two) and teens, remember this fiber guideline: "Just add five." Add their age plus 5 to determine about how much fiber they need. For example, a seven year old needs about 12 grams of fiber (7 years + 5 = 12 fiber grams). New Dietary Intakes, released in 2002, include fiber.

Although fiber comes from foods of plant origin, you don't need to eat huge amounts of whole-grain products, legumes, vegetables, and fruits to meet your fiber goal. By following the advice of the Food Guide Pyramid, your everyday food choices can supply all you need if you choose foods with more fiber. You'll see that more of the grain products, fruits, and vegetables you eat have only 1 to 3 grams of fiber per serving.

However, when it comes to fiber, you can overdo a good thing! Too much fiber can move food through the digestive tract faster than some nutrients can be adsorbed. By eating more than 50 to 60 grams of fiber a day, your body may lower the absorption of vitamins and minerals, among them zinc, iron, magnesium, and calcium. An excessive amount of fiber may cause gas, diarrhea, and bloating. By filling up with too many high-fiber foods or supplements, you may not have an appetite for other nutrient-rich foods.

How might you get too much fiber? By eating a lot of bran, very-high-fiber cereals, or perhaps using a fiber supplement in an eating plan that already has plenty of vegetables, fruits, and whole grains!

For Fiber - Variety!

As laboratory procedures have improved, consumers now know the "dietary fiber" content of food, which reflects both Soluble and insoluble fiber content. Today you'll find dietary fiber listed on the Nutrition Facts panel on the labels of most packaged food products.

Food for Fiber

Do you like to nibble on popcorn? IT's a whole-grain snack that helps boost the fiber factor in your diet. Again, dietary fiber comes only from plant sources of foods: Fruits, vegetables, legumes, grains, nuts, and seeds. Plant-based foods actually contain a "mixed bag" of dietary fibers, having some of both types: Soluble and insoluble. Good sources of soluble fiber may supply some insoluble fiber, too, and vice versa. For example, fruits and vegetables have both pectin (soluble) and cellulose (insoluble). However, fruit usually has more pectin; vegetables, more cellulose. Both oatmeal and beans have some of both: Soluble and insoluble fiber. (Beta glucan is the Soluble fiber in oats and barley.)

Here are some specific foods that provide significant amounts of insoluble and soluble fibers. Their texture is a clue to their presence.

- Insoluble fibers: whole-wheat products; wheat, oat, and corn bran; flaxseeds; and many vegetables (such as cauliflower, green beans, and potatoes), including the skins of fruits and root vegetables, and beans. In fact, their tough, chewy texture comes from insoluble fibers.
- Soluble fibers: dried beans and peas, oats, barley, flaxseeds, and many fruits and vegetables (such as apples, oranges, and carrots). When they're cooled, the soft, mushy texture comes from their soluble fibers. Psyllium seed husks also supply soluble fiber.

For the record: Any nondigestible carbohydrate in animal-based foods is not currently defined as "dietary fiber" on food labels. But stay tuned in the future for possible changes in fiber labeling on food.

From grain to grain, brans aren't all alike. The bran layers - wheat, rice, corn, oats, and others - have varying types of different amounts of fiber. Wheat bran, for example, has a higher concentration of fiber than most other bran, and its bran is mainly insoluble. To compare, oat bran contains mainly soluble fiber.

The fiber content of vegetable and fruits varies; some are better sources than others. A heaping bowl of fresh lettuce greens may seem loaded with fiber. However, one cup of lettuce contains just about 2 gram of fiber; instead, it's mostly water. In contrast, 1/2 cup of a three-bean salad (mainly legumes) supplies more than 3 fiber grams.

Food preparation or processing may alter the fiber content of foods. Just as a sponge changes in its ability to hold water when it's chopped into very fine pieces, so properties of fiber may change a bit when the structure is altered by food processing or preparation. Fiber content drops too, when the fiber-rich part of a food is removed.

When it comes to make food choices, don't get hung up on which fiber is which - just consume enough overall. By adding a variety of fiber-rich foods to your meals and snacks, you usually get the health benefits of both soluble and insoluble fibers.

Need a Fiber Boost?

Try to eat at least five servings of fruits and vegetables a day,, and choose several servings of whole grains everyday. Consume legumes often: different kinds and colors of fresh, frozen, dried, or canned beans. You can easily meet the 20 - to 35 gram per day goal - and consume ample amounts of both soluble and insoluble dietary fibers, too.

If you boost your fiber intake, do so gradually! Give the bacteria in your stomach and intestines time to adjust. If you add more fiber to your diet too quickly - or consume too much on a regular basis - you may end up with gas, diarrhea, cramps, and bloating.

Drink plenty of water and other fluids, too, when you eat extra fiber. Remember that fiber acts like a large sponge in your colon. It holds water as it keeps waste moving along. That's how it helps prevent constipation and related intestinal problems. For fiber to do its job, you need to consume enough fluids. Set your goals for at least eight cups of liquids a day.

Caution: Before You Boost Fiber in Meals and Snacks...

For your children: Eating a lot of high-fiber foods may fill young children up too quickly. That may take away their appetite for other nutritious foods with nutrients their bodies need for proper growth. Excessive amounts of fiber also may interfere with their body's absorption of vitamins and minerals.

For elderly people and people who have had gastrointestinal surgery: If you're older than sixty-five or have had surgery on some part of your stomach, intestines, colon, or rectum, check with your doctor before adding fiber to your meals and snacks. You may feel the effects of added fiber more than others.

Supplement Watch: About Fiber Pills and Powders

Should you take a fiber supplement - or not?

Depending on the supplement, adding a fiber pill or powder to the foods you already eat probably won't make much difference to your health, although it may help relieve constipation. So save the expense! Fiber-rich foods can supply more fiber than many fiber pills do. Also, supplements with more fiber may inhibit the absorption of some minerals - a problem for people whose diets are nutrient-deficient. If you decide to take fiber supplements for "regularity," your body might come to rely on them.

In contrast, fiber-rich foods - whole-grain foods, fruits, legumes, and vegetables - provide added benefits associated with a high-fiber diet: little or no fat, especially saturated fat, and a good supply of other nutrients. Fiber pills and powders don't have any added benefits.

Most registered dietitians and doctors advise against taking fiber pills or powders as a primary source of dietary fiber.

Can fiber supplements help you lose weight and keep weight off? No scientific evidence supports this claim. You can't trick your appetite in the long run. Rather than fiber pills and powders, choose a low-fat, high-fiber diet with plenty of fruits, vegetables, whole grain foods, and beans to get the fullness feeling. Research doesn't show a link between fiber supplements and reduced cancer risk, either.

Ten Great Ways to "Fiber Up"!

Are you ready to eat more fiber - and hit the 20 to 35 gram daily target? Then these ten guidelines can get you on your way:

1. Eat a variety of foods. You'll benefit from a mix of fibers - both soluble and insoluble
2. Check the food label. Nutrition Facts on food labels can help you find foods with more fiber. Look for words such as "high in fiber" or "more fiber" on labels, too. Spot fiber-rich ingredients on the ingredient list, too. For example, look for "bran," "whole grain," or "whole-wheat flour."
3. Remember breakfast - a good time for fiber-rich foods. Besides bran cereal or another fiber-rich breakfast cereal, enjoy oatmeal, whole-bran muffins, or whole-wheat waffles. Check food labels for a cereal with 5 or more grams of fiber per serving. Top with fruit for a little more fiber.
4. Switch to whole grains - in bread, cereals, buns, bagels, and pasta, to name a few - at least some of the time. Of your six to eleven Grains Group servings daily, make three whole grain! Besides the fiber, making sandwiches on a variety of wholegrain breads adds interest and taste. For breads, that includes cornbread from whole ground corn meal; cracked wheat bread; oatmeal bread; pumpernickel bread; rye bread; and the perennial favorite, whole-wheat bread. Eat breads made with bran, too, such as bran muffins.
5. Give brown rice a try sometime, or mix half brown and half white rice.
6. Plan to eat legumes two to three times a week. They're among the best fiber sources around. And they add flavor and texture to dishes.
7. Eat at least five servings of fruits and vegetables daily. Plan a cooked vegetable and a salad for dinner (that's two vegetable servings) and enjoy another for lunch. You have just two more to go!
8. Enjoy fruits and vegetables with the edible skin on. With the skin, a medium potato has 3.6 grams of fiber. Skinless it has less - 2.3 grams. Also enjoy the flavor and crunch of edible seeds - for example, in all kinds of berries, kiwi, and figs. They, too, supply fiber.
9. Choose whole fruit more often than juice. Fiber comes mainly from the peel and pulp, so juice has almost no fiber.
10. "Fiberize" your cooking style. Substitute higher-fiber ingredients in recipes, such as using part whole-wheat flour in baked food. And fortify mixed dishes with high-fiber ingredients, perhaps bran or oatmeal added to meat loaf or ground flaxseeds added to baked goods.