



Grains of truth about **CEREALS**

For variety, convenience, cost, and nutritional benefits, cereal is an excellent food choice. Hot or cold, right out of the box, or dressed up, cereals are not only the perfect start to an active day, but fill any mealtime bill. They make great snacks and evening meals for all ages.

In the U.S., on the average, of two new breakfast cereals are introduced to market shelves each week. The ready-to-eat cereal industry was \$6.84 billion in retail sales in 2003, and the average American consumes about 15 pounds of this type of cereal each year.

Definitions

Cereals are processed grains that are generally 75 to 80 percent carbohydrates, a ready source of fuel for our brains and bodies. Cereals can be commercially processed or homemade.

History

The Kellogg brothers were among the first to realize that many diseases might be related to what people were eating. The Kellogg brothers envisioned a new breakfast food that would provide quality nutrients yet is easy to digest, unlike the traditionally rich breakfast then common. Numerous experiments were underway as early as 1894, involved boiling wheat for different lengths of time and then running it through smooth metal rollers to create a doughy substance. One of these batches proved to be a “lucky accident”, when two days later the Kellogg brothers finally got around to working with it.

By 1906, Will Keith Kellogg established the Kellogg Company (originally known as the “Battle Creek Toasted Corn Flake Company”), and began selling great-tasting grain-based, high-fiber foods.

In the early days, Will Keith Kellogg would actually sign his name to each box of cereal, thus ensuring customers that they were getting the genuine article, not an imitation. The Kellogg’s® logo used today was derived from the original signature: “W.K. Kellogg.”

General Mills also entered the ready-to-eat cereal market with an accidental discovery in 1921. A health diet clinician in Minneapolis, while mixing bran gruel for his patients, spilled some of the mixture on the hot stove. He found the crisp flake with a toasted flavor to be more appetizing than his gruel, and offered the new product idea to Washburn Crosby Company, a forerunner of General Mills.

Washburn Crosby’s head miller tested 36 varieties of wheat and tried many methods before perfecting a tasty flake that would not crumble in the box. An employee contest to name the cereal was won by an export manager’s wife, and in 1924, Wheaties® were introduced.

Thanks to a few “lucky accidents”, today we enjoy the convenience and nutritional benefits that these two companies as well as several others have to offer.

Nutrition

Studies have shown that children who include cereal for breakfast regularly have better overall vitamin and mineral intakes than those eating other types of breakfast foods.¹ Read the nutrition and ingredient panels for the nutrients you are most interested in.

Cereal is one of the quickest and most nutritious ways to consume that all-important breakfast. Studies conducted on 10 year-old children showed that their physical endurance and creativity was significantly better after a breakfast which gave them 20 percent or more of their daily caloric requirements.²

First, note what the suggested serving size is, because most people generally eat 1½ servings at a sitting. For example, some granola-type cereals show they are low in fat and calories, but the serving size is one-ounce portion—only 4 tablespoons. That is much less than the serving size generally eaten.



Second, in making healthy cereal choices, be aware of the following:

FAT: Most cereals are low in fat content. Fat should be no more than 20 to 35 percent of your total daily calories, with most fats coming from polyunsaturated and monounsaturated sources. Count less than 10 percent of calories coming from saturated fats, less than 300 mg per day of cholesterol and keep trans fats as low as possible. That means that some foods with more than 35 percent fat should be averaged with others that have less. Small amounts of polyunsaturated oils are found naturally in the germ of a grain kernel, so a few grams of fat in whole grain cereals are to be expected.

SUGAR: Is sugar, corn syrup, honey, sucrose or brown sugar the first or second ingredient listed? (Ingredients are listed in descending order according to volume.) If so, you may want to serve it as you would other sweet treats. Pre-sweetened cereals make a good low-fat sweet treat or part of a nutritious breakfast. Note that aspartame is sometimes used as a non-nutritive sweetener.

SODIUM: As a guideline, less than 2,300 milligrams (mg) a day is recommended.

FIBER: Fiber is also a significant attribute of cereal—especially bran cereals, which may contain 10 to 26 grams of fiber per cup. Cereals contain both soluble and insoluble fiber. Foods containing insoluble fiber are good for the digestive tract and help reduce the risk of certain cancers. Foods containing soluble fiber can help lower blood cholesterol.

Cereal is an excellent way to get the recommended 25 to 38 grams of fiber daily. Look for 3 to 5 grams of dietary fiber per ounce serving. If your favorite cereal lacks fiber, simply add a bit of wheat bran (one gram of fiber per tablespoon of bran, raw or toasted) or toss on rolled oats, fresh fruit or raisins.

Add variety by mixing different types of cold cereal, especially to incorporate high-bran cereals into the diet.

Storage

Preferably, store in an airtight container in a cool (under 60°F), dry area. Commercial cereal should store for three years in this fashion. If stored in the cereal box, a shelf life of one year is probably maximum. If there is danger of insect infestation, store in the refrigerator. There should be a “freshness” date on the package to use as a reference for the product quality. Freezing is acceptable, but it draws moisture from the product.

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Preparation

Instructions for the preparation of hot cereals, both instant and the “old-fashioned” varieties can be found on the package. You can add pizzazz by topping hot cereals with fresh or dried fruit or a light dusting of nuts or seeds for crunch and fiber. Fat-free vanilla yogurt not only adds zest to the cereal, but calcium as well.

A dollop of applesauce, jam, a teaspoon of maple syrup, or vanilla is also a tasty alternative. Try blending two kinds of cereals for a new flavor. Mound hot cereal into a scooped-out orange or cantaloupe shell or fill a scooped-out apple with cooked cereal and bake for 20 minutes at 375°F.

Cooked cereal should be served piping hot, because it tends to become “rubbery” when cooled. Remember: cooked cereal can be kept hot in the top of a covered double boiler or reheated in a microwave.

Alternative uses

Cereals are a quick and easy nutritional alternative for lunch or dinner. Many dry cereals or uncooked hot cereals can be added to meat dishes and used as a “breading” for fish and poultry. Cereals lend themselves well to muffin, cookie, cake, bread and piecrust recipes. They are often used as toppings for fruit, yogurt, ice cream and casseroles.

Enjoy dry, sweetened cereals as a bedtime snack. If you would like a special treat, try the following on your hot cereal:

RASPBERRY-VANILLA CREAM

1 cup low-fat cottage cheese or ricotta

¼ teaspoon vanilla

3 tablespoons raspberry jam

Blend cheese and vanilla in a processor or blender until smooth. Blend in jam; spoon over hot, cooked cereal. Yields 1¼ cups or 5 servings.

Nutrient Analysis: One ¼-cup serving provides approximately: 65 calories, 2 mg cholesterol, and 184 mg sodium.

¹The American Breakfast Report, General Mills, 1992.

²An experimental study of the effects of energy intake at breakfast on the test performance of 10 year-old children in school. *Int. J Food science & nutri.*, 48, 5-12, 1997.

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