



Why Pecans?

Pecans: Rich in flavor and nutrition!

As you consider healthy food choices for your family, why not “go nuts”?

Nuts offer a range of excellent health benefits and will add flavor, crunch and appeal to every diet. Most tree nuts are a delicious source of unsaturated fatty acids, protein, fiber and antioxidants like vitamin E.

Pecans are one of the most nutritious members of the tree nut family. Not only are they a good source of protein, fiber and heart-healthy fats, pecans are rich in ellagic acid, which may prevent certain cancers. They have also been linked to fewer heart attacks in several large stud-

ies. The USDA ranks pecans as one of the best sources of antioxidants (and the highest among nuts). (Source: *Journal of Agricultural and Food Chemistry*, 2004)

Pecans make it special

There’s something special about the rich, buttery flavor of pecans. They taste great by themselves as a nutritious snack and can be incorporated into a variety of recipes. Try toasted pecans in cereal, on salads or over ice cream. They add

a light, delicious crunch to pancake batter, muffins and cookies. For meat dishes, there’s nothing like the taste and texture of roasted pecans on top!



“Everyone knows pecans taste great, but scientific research is helping to uncover the incredible health benefits they offer as well.”

— Environmental Nutrition,
11/1/2000



Go nuts for your heart!

We’ve all heard that nuts are filled with fat and off limits for dieters. However, a great deal of recent research links nut consumption to several key health benefits. The Food and Drug Administration, for example, recently



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approved claims that eating 1.5 ounces of nuts daily may reduce the risk of heart disease when they're part of a diet low in cholesterol and saturated fat.

While saturated fat tends to raise blood cholesterol, polyunsaturated and monounsaturated fats are considered heart-healthy because they help lower blood cholesterol. Monounsaturated fats are particularly beneficial because they lower the "bad" LDL cholesterol and triglycerides but don't lower the "good" HDL cholesterol. In fact, nearly 90 percent of the fats (oils) in pecans are of the heart-healthy, unsaturated variety!

Pecans are a good source of phytochemicals, compounds found in plants that seem to decrease the risk of cancer and heart disease. Research indicates an especially promising link between nut consumption and prostate cancer. (Source: *Food Processing*, 11/1/2000) And, like all plant foods, pecans contain no cholesterol! The



Pecans: Loaded with healthy benefits!

- Shown to lower LDL ('bad' cholesterol) levels
- Contain 19 vitamins and minerals, including vitamin A, magnesium, potassium, B complex vitamins and phosphorous
- An excellent protein alternative to meat
- Contain 25% more cholesterol-lowering oleic acid than a tablespoon of olive oil
- Sodium free
- Cholesterol free
- A good source of zinc, shown to boost immunity
- Shown to reduce the risk of heart disease

(Source: *The Pecan Store*)

Nutrient composition of 1 ounce (approx. 19 halves) pecans:

(source: USDA; www.nal.usda.gov/fnic/foodcomp/search/)

Protein	2.6 grams
Fat	20.4 grams
Monounsaturated fat	11.5 grams
Polyunsaturated fat	6.1 grams
Carbohydrate	3.9 grams
Fiber	2.7 grams
Phytosterols	29 mg
Cholesterol	0 grams
Potassium	116 mg
Zinc	1.28 mg
Folate	6 mcg
Vitamin E	0.4 mg
Calories	196

phytosterols found in pecans are believed to actually lower cholesterol by inhibiting the absorption of dietary cholesterol that is naturally made in the liver. Compared with other nuts, pecans have one of the highest levels of phytosterols.

Nut consumption also is linked to a decreased risk of heart disease in several studies. The Adventist Health Study, (35,000 participants), and the Nurses' Health Study (86,000 participants), both concluded a lower risk of heart attacks and heart disease for people who ate an ounce or more of nuts at least five times per week. In the Nurses' Health Study, the findings were quite significant – **35 percent fewer heart attacks were reported among women who consumed a serving of nuts five times per week.** (Source: *Food Processing*, 11/1/2000)

Essential minerals, like magnesium, copper, selenium and potassium, also make nuts a good choice. For reducing high blood pressure, the DASH Diet recommends four to five servings per week of nuts, seeds and beans. (This eating plan is from the Dietary Approaches to Stop Hypertension, a large study of

dietary patterns conducted at four major medical centers.)

Counting carbs? Choose pecans!

Pecans are a naturally low carbohydrate food that will add variety and nutrition to your low-carb diet. A handful of pecans (one ounce) contains only 4 grams of carbohydrates! Whether in a meal or as a snack, the nutrients and disease-fighting properties of pecans are a great choice for your low carbohydrate lifestyle.

Pecans also are satisfying, due to their fiber content and light crunch. Substitute a handful of pecans for chips or pretzels next time you feel the urge for a snack. They'll stick with you longer, and you're likely to consume less calories throughout the day. Research shows that nut eaters tend to be thinner than those who don't eat nuts – probably because nuts help curb the appetite.

Pecans and Mediterranean diet

Researchers at Brigham and Women's Hospital and the Harvard School of Public Health have found that people following a Mediterranean-style weight loss diet were able to keep weight off for a longer period of time than those following a traditional low-fat diet. This moderate fat diet, based on the diets of southern Europe and the Mediterranean, allows for a greater

Researchers at New Mexico State University found that adding pecans to an average self-selected diet lowered "bad" LDL cholesterol levels by 6% in study subjects.

(Findings reported in the Journal of the American Dietetic Association, 3/2000)

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variety of foods that are considered very appetizing compared to stricter, blander diets. Participants substituted nuts and olive oil for saturated fats, like butter. The main fats included in the Mediterranean diet are unsaturated, or “healthy fat” that is associated with lowering cholesterol. Researchers also found the diet had a blood-thinning effect and may be a good option for sustainable weight loss. (source: *M. Hemmelgarn*)

Pecans lower cholesterol levels

Researchers at Loma Linda University found that a diet containing pecans not only lowered total and LDL (“bad”) cholesterol significantly more than the American Heart Association (AHA) diet, but also helped to maintain desirable levels of HDL (“good”) cholesterol. Investigators measured participants’ cholesterol levels while on the Step 1 diet, recommended by the AHA for individuals with elevated cholesterol levels, then compared cholesterol levels after 20 percent of their calories were replaced with pecans. Compared to participants’ baseline cholesterol levels, the pecan-containing diet lowered cholesterol levels by more than twice as much as the Step 1 diet – a similar effect as cholesterol-lowering medications. (Source: *Journal of Nutrition*, 09/2001)

Preparing and storing pecans

Adding pecans to your favorite recipes is easy. Select clean, unshelled nuts free from splits, cracks and holes. Nuts in the shell should be heavy for their size, indicating a fresh, meaty kernel. Nutmeats that rattle in their shell are usually stale.

Crisp and plump nutmeats indicate high quality; limp or shriveled nutmeats indicate poor quality. Unless you plan to use nutmeats as a garnish, they do not need to be uniform in size. Suppliers often sell cracked nuts in the shell in plastic bags. Remove cracked nuts from plastic bags immediately and spread them out on trays in an airy location until you can shell and store them properly. If left in plastic bags, cracked nuts are susceptible to mold growth. Return or discard any nuts showing mold growth. For year-round use, store nuts as soon as they are thoroughly dry. Rich in oil, nuts will quickly become rancid or stale if not stored properly.

Nuts and longevity



Pecans contain protective ingredients linked to longer life

- Arginine: Amino acid needed to make nitric oxide; helps relax constricted blood vessels and eases blood flow
- Phytochemicals contain antioxidant vitamins: Vitamin E, flavonoids, plant stanols, ellagic acid and phenols, which protect against oxidative damage to cells
- Vitamins and minerals: Folic acid, magnesium and potassium
- Fiber: Nuts help achieve the goal of 25-35 grams daily

(Source: *M. Hemmelgarn*)

Although unshelled nuts take up more room, they have a much longer shelf life than shelled nuts. Store unshelled nuts in airtight containers in a cool, dry, dark location, below 70 degrees, to ensure good quality for about four months. For long-term storage, package unshelled or shelled nuts in moisture/vapor proof containers and store in the refrig-

erator or freezer – the lower the storage temperature, the longer the shelf life. One pound of unshelled nuts yields 2 1/4 cups pecan halves. (Source: *www.mopecans.com*)

Whole, shelled nutmeats remain fresh longer than nuts in pieces – so chop nuts just before you plan to use them. Unsalted nuts keep longer than salted nutmeats.

Nothing like northern pecans!

When it comes to premium taste and quality, there’s nothing like northern-grown pecans from Kansas, Missouri or Illinois. In fact, northern pecans are smaller and sweeter than the jumbo-sized hybrid nuts grown in the southern United States. This richer, more buttery flavor found in northern pecans is due to the higher content of monounsaturated and polyunsaturated oils. Chefs across Missouri, and even New York-based food writers, have commented on the difference in flavor from Missouri-grown pecans. (Source: *Knight Ridder/Tribune News Service*, 12/1/2003)

As consumer demand for pecans increases, The University of Missouri Center for Agroforestry (UMCA) is conducting research to determine grafted cultivars for pecans that will produce the highest quality, most consistent nut crops and allow Missouri farmers to take an active role in this market.

Toasting pecans is easy!



Simply place a single layer on a baking sheet and bake at 300 degrees for approximately 10 minutes. Stir often. Toasted pecans will be light brown and crisp.

Easy ways to enjoy the sweet, buttery crunch of Missouri pecans

- Mix into a vegetable or fruit salad
- Serve over ice cream or yogurt
- Sprinkle on poultry or fish for baking
- Mix into pancakes and muffins
- Toss chopped pecans onto a pizza before baking
- Mix toasted pecan halves with popcorn
- Mix pecans into bread crumb coating for baking chicken breasts or broiling fish
- Sprinkle on a bagel after spreading with cream cheese
- Coarsely chop and toss with pasta



For more information on pecans, or growing pecans in an agroforestry practice, contact the University of Missouri Center for Agroforestry at (573) 884-2874; or visit www.centerforagroforestry.org

The University of Missouri Center for Agroforestry (UMCA), established in 1998, is an interdisci-

plinary research, teaching and technology transfer program. The Center is recognized as the leading institution for biophysical, economic and social research related to temperate agroforestry and its benefits to landowners and the environment. Agroforestry practices benefit Missouri by increasing and diversifying products, markets, and

farm income; improving soil quality; and reducing erosion, nonpoint source pollution and damage due to flooding. In addition, agroforestry practices enhance land and aquatic habitats for fish and wildlife and improve biodiversity.

Portions of information provided by Melinda Hemmelgarn, M.S., R.D.

Selected information and images from:

- Missouri Northern Pecan Growers Association, LLC (www.mopecans.com)
- The Green Valley Pecan Company (www.pecanstore.com)
- www.ILovePecans.com

Buy Missouri-grown pecans at www.mopecans.com!

Health benefit references:

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