

OPTIMAL HEALTH UNIVERSITY™

Presented by Katie Gravesen, DC

“Squash” Poor Nutrition This Winter

When the weather turns cold, many of the fresh fruits and vegetables we enjoy in the summer disappear from farmers’ markets. But just when we need it the most, nature saves the day with delicious and versatile veggies that last all winter long — winter squash.

Butternut squash, acorn squash, pumpkins and their kin are members of the genus Cucurbita (which also includes summer favorites like zucchini and cucumbers). They have a tough rind that lends them well to storage in the cold season, when they are a tasty source of several key nutrients. Dr. Gravesen invites you to consider the health-promoting gifts of winter squash and add it to your family’s next meal.



The Carotenoid Connection

Perhaps the most prominent feature of winter squash is the bumper crop of carotenoids they bring to the table (*J Agric Food Chem* 2007;55:4027-33).

Carotenoids are a class of plant compounds including beta-carotene and alpha-carotene, which the body converts into vitamin A.

Carotenoids give the flesh of the many varieties of winter squash their distinctive hues, ranging from creamy white to yellow to vibrant orange. (Carotenoids are also plentiful in other orange-toned fruits and vegetables such as carrots, sweet potatoes, apricots, mangoes and cantaloupe.)

While each variety contains a unique ratio of carotenoids, Dr. Gravesen teaches patients that the intensity of the flesh color indicates how rich the squash is in these compounds. For example, an orange squash may have nine times the carotenoids of a yellow squash.

Carotenoids are powerful antioxidants believed to protect the body against a range of health problems. For instance, a study in Japan indicated that a diet high in carotenoid-rich foods may help modulate blood sugar levels,

staving off diabetes (*J Epidemiol* 2002;12:357-66).

Furthermore, an extract of winter squash has proven ability to inhibit cell growth of cancers of the colon, breast, lung and central nervous system (*Cancer Lett* 2003;189:11-6).

It’s also exciting to Dr. Gravesen that preliminary research indicates that antioxidants may help ward off dysfunctional areas in the spine called **vertebral subluxations**. This common condition, which may be corrected and prevented with regular chiropractic care, is linked with a myriad of health problems.

Superstar Starches

As a starchy vegetable getting 90 percent of its calories from carbohydrates, winter squash might be mistakenly categorized with less nutritious starches like refined grains. However, Dr. Gravesen urges patients to remember that all carbs are not created equal.

Many of the carbohydrates found in winter squash are polysaccharides, a kind of complex carbohydrate that adds valuable soluble fiber to the diet. These polysaccharides not only aid in digestion but also prevent the small intestine from absorbing dietary cho-

lesterol. This, in turn, lowers blood cholesterol levels.

In one scientific trial, polysaccharides from pumpkins showed antioxidant properties, inhibiting the oxidation of several compounds into disease-causing free radicals (*Biosci Biotechnol Biochem* 2009;73:1416-8).

Research also indicates that polysaccharides — like those in winter squash — protect the body against diabetes. One Asian variety of pumpkin is historically used to treat diabetes and high blood sugar. When scientists administered an extract of this pumpkin to diabetic rats, they found that it dramatically moderated the animals’ blood sugar levels (*Plant Foods Hum Nutr* 2005;60:13-6).

Other Nutritional Highlights

Winter squash is unique among vegetables in its significant omega-3 fatty acid content. One cup of winter squash contains about 15 percent of the recommended daily quota of omega-3s in the form of alpha-linolenic acid (ALA).

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ALA, primarily found in nuts and seeds, is one of the essential fatty acids that the body cannot produce and therefore must obtain from diet.

An ALA-rich diet is also thought to cut the risk of clinical depression in women (*Am J Clin Nutr* 2011;93:1337-43).

Winter squash is also high in vitamin C, which strengthens immunity to protect against disease. It is additionally a good source of potassium, an important mineral shown to slash the risk of stroke and cardiovascular disease (*J Am Coll Cardiol* 2011;57:1210-9).

Folic acid, the B vitamin best known for its critical role in early pregnancy for healthy neural development, is also available in moderate quantities in winter squash.

Pumpkin Seed Power

When you cut into a pumpkin or other winter squash, don't throw out the seeds! Whether roasted at home or purchased ready-to-eat, pumpkin seeds (also called pepitas) have a unique nutritional profile that makes them one of the healthiest snacks around.

For one thing, they are a mineral pow-

erhouse. A quarter cup of seeds — about 35 grams — provides over half of the daily recommended manganese requirement. Manganese is required for the function of a wide range of enzymes in the body.

The same quarter cup of seeds also provides almost half of the daily recommended intake of magnesium. Magnesium is found in every cell of the body and is particularly crucial for neurological health.

Pumpkin seeds also provide impressive levels of phosphorus, iron, copper and zinc.

Pumpkin seeds, like other nuts and seeds, are also a good source of phytochemicals. These plant compounds, like the polysaccharides in squash flesh, inhibit the body's absorption of cholesterol (*Agric Food Chem* 2005;53:9436-45).

How to Enjoy Winter Squash

If you haven't prepared winter squash before, don't be intimidated by its thick rind — it's easy to peel with a vegetable peeler. Then cut it in half, scoop out the seeds (reserve them to roast as described below), cut the flesh into one-inch cubes and steam for about seven minutes. Season to taste

and serve as is or puree. Winter squash makes a delicious creamy soup.

You can also skip the peeling and roast a halved squash after pricking it with a fork and adding a light coating of olive or canola oil and a sprinkle of salt. The skin is easy to peel off after roasting.

Seeds from pumpkin — or any winter squash — can be separated from pulp and roasted on a baking sheet until golden brown. Just make sure to clean them thoroughly first. Snack on them as is or add them to granola and baked goods, or use the seeds as a salad topper.

Nutrition and Optimal Health

A balanced diet of nutrient-dense foods like winter squash is a key part of the chiropractic lifestyle championed by our chiropractic office.

Nutrition counseling plus chiropractic adjustments, stress management advice, ergonomic training and exercise recommendations are some of the main services we offer patients. These elements work together to maintain peak wellness and protect the body against illness and injury.

Interested in an approach to health that emphasizes prevention? Call us today to schedule an evaluation with the doctor.



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