

Kitchen Creations Faculty Newsletter #37 February 2014

National Nutrition Month® 2014 Press Release

Give Your Plate a Taste Lift without Forfeiting Nutrition during National Nutrition Month® and Beyond

Wednesday, January 22, 2014

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CHICAGO – When it comes to choosing what to eat, nutrition is important but flavor is likely the true motivator and also the key to eating right, according to the Academy of Nutrition and Dietetics. This March, during National Nutrition Month®, experiment with new flavors and flavor combinations in healthy meals and "Enjoy the Taste of Eating Right."



"According to consumer research, taste tops nutrition as the main reason why consumers buy one food over another. The foods we most commonly eat are often those we enjoy the most," says registered dietitian and Academy spokesperson Joy Dubost. "So make taste a priority when preparing nutritious meals."

Preparing meals can be healthy, rewarding and cost-effective. Dubost offers cooking tips to help enhance flavor without adding extra fat, calories or salt.

To maximize food's flavor and nutrition, choose high-quality ingredients at their peak quality, and be sure to store and handle foods properly.

"Proper food handling and storage can enhance the natural flavors of food and keep nutrient loss to a minimum," Dubost says. "Overcooking can destroy both flavor and nutrients. So be sure to cook foods properly to retain nutrients and enhance flavor, color, texture and overall appeal."

Try some of these simple techniques to enhance flavor while experimenting with flavor combinations," Dubost says.

- Intensify the flavors of meat, poultry and fish with high-heat cooking techniques such as pan-searing, grilling or broiling.
- Pep it up with peppers. Use red, green and yellow peppers of all varieties—sweet, hot and dried. Or add a dash of hot pepper sauce.
- Try grilling or roasting veggies in a very hot (450°F) oven or grill for a sweet, smoky flavor. Brush or spray them lightly with oil so they don't dry out. Sprinkle with herbs.
- Caramelize sliced onions to bring out their natural sugar flavor by cooking them slowly over low heat in a small amount of oil. Use them to make a rich, dark sauce for meat or poultry.
- Simmer juices to make reduction sauces. Concentrate the flavors of meat, poultry and fish stocks. Reduce the juices by heating them—don't boil. Then use them as a flavorful glaze or gravy.
- For fuller flavors, incorporate more whole grains such as brown rice or quinoa, or experiment with amaranth and wild rice.

- Add small amounts of ingredients with bold flavors like pomegranate seeds, chipotle pepper or cilantro.
- Add a tangy taste with citrus juice or grated citrus peel: lemon, lime or orange. Acidic ingredients help lift and balance flavor.
- Enhance sauces, soups and salads with a splash of flavored balsamic or rice vinegar.
- Give a flavor burst with good-quality condiments such as horseradish, flavored mustard, chutney, wasabi, bean purees, tapenade and salsas of all kinds.

"These simple cooking steps can really transform your favorite meals and foods," Dubost says. "But keep in mind the average adult has 10,000 taste buds, and people sense the same foods differently. So don't be afraid to try *new* foods, flavors and taste combinations. There's truly a world of flavors to explore."

Visit the Academy's website to view [a library of recipes](#) designed to help you "Enjoy the Taste of Eating Right."

As part of this public education campaign, the Academy's [National Nutrition Month website](#) includes a variety of helpful tips, games, promotional tools and nutrition education resources, all designed to spread the message of good nutrition based on the "Enjoy the Taste of Eating Right" theme.

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The Academy of Nutrition and Dietetics is the world's largest organization of food and nutrition professionals. The Academy is committed to improving the nation's health and advancing the profession of dietetics through research, education and advocacy. Visit the Academy at www.eatright.org.

Improved Understanding of Fiber

Research over the last twenty years has shown that fiber reduces the risk of diabetes. In more recent years, scientists have identified that short-chain fatty acids resulting from fermentation of soluble fiber in the gut, such as acetate, propionate, and butyrate, are protective but have struggled to understand their mechanisms. An article published in January 2014 in *Cell* describes recent advances in understanding the metabolic benefits associated with fiber intake.

The researchers found that propionate and butyrate activate intestinal gluconeogenesis in rats and mice. The glucose travels in the blood flowing to the portal vein and triggers a series of nerve signals that result in decreased hunger and hepatic gluconeogenesis and increased basal metabolic rate. Ultimately, the glucose produced from the propionate and butyrate in the intestine promotes reduced weight and adiposity and improved glucose control and insulin sensitivity.

Tests showed that mice fed diets enriched with propionate or butyrate produced more glucose in the intestine and experienced less diabetes, obesity, and insulin resistance than control mice. When the researchers fed the supplemented diet to mice that had been genetically engineered to suppress intestinal gluconeogenesis, they developed obesity and diabetes comparable to the control mice. These findings support that the metabolic benefits associated with fiber intake are due to the production of glucose in the intestine, which is activated by short-chain fatty acids formed as fibers are fermented by the intestinal flora.

De Vadder F, Kovatcheva-Datchary P, Goncalves D, et al. Microbiota-generated metabolites promote metabolic benefits via gut-brain neural circuits. *Cell* 2014;156:84-96.

Muscle-Strengthening Activities Lower the Risk of Type 2 Diabetes in Women

Studies support that aerobic physical activity lowers the risk of type 2 diabetes. There is also research showing that people with type 2 diabetes who engage in muscle-strengthening activity experience improved blood glucose control and that men who weight train have a reduced risk of type 2 diabetes independent of aerobic physical activity. A study published in January indicates that women may also reduce the risk of developing type 2 diabetes when they regularly do muscle-strengthening activities.

This study included 99,316 women who participated in the Nurses' Health Study and the Nurses' Health Study II. Participants reported the amount of time spent on resistance exercise, lower intensity exercise, and aerobic physical activities. Resistance exercise and lower intensity exercise (e.g., yoga, stretching, toning) were considered muscle-strengthening activities.

The researchers controlled for confounding factors and found that overweight and obese women who participated in muscle-strengthening activities had a decreased risk of type 2 diabetes. This was true whether or not the women participated in aerobic moderate and vigorous physical activity. Muscle-strengthening activity was not associated with diabetes risk in women with a BMI less than 25 kg/m². Women who followed recommendations of at least 150 minutes of aerobic moderate to vigorous physical activity and resistance exercise twice per week had the lowest risk of type 2 diabetes.

Grøntved A, Pan A, Mekary RA, et al. Muscle-strengthening and conditioning activities and risk of type 2 diabetes: a prospective study in two cohorts of US women. *PLoS Med* 2014;11:e1001587. Available from: <http://www.plosmedicine.org/article/info%3Adoi%2F10.1371%2Fjournal.pmed.1001587>.

Overhaul of the Obesity Paradox

Researchers at Harvard Medical School and Brigham and Women's Hospital thought results of studies showing an obesity paradox in people with diabetes could be skewed. The obesity paradox claims that patients with diabetes who are overweight or obese have a lower risk of mortality than those who are normal weight. The researchers used the Nurses' Health Study and the Health Professionals Follow-up Study to study the association between BMI and mortality in 11, 427 participants with diabetes.

The researchers found a J-shaped association across BMI categories for all-cause mortality. Those with a BMI greater than or equal to 35 had the highest risk, followed by those with a BMI of 18.5-22.4 and 30-34.9. Those with a normal BMI had the lowest risk.

Because the researchers thought previous studies may have been skewed by ignoring smoking status, they also investigated the association between BMI and mortality among those who smoke versus those who do not. The relationship was linear for participants who never smoke; as BMI increased, so did mortality risk. However, the relationship was J-shaped among those who smoke; people with a BMI of 18.5-22.4 had the highest risk of mortality, followed by those with a BMI greater than or equal to 35, then those with a BMI of 30-34.9. These results contradict the obesity paradox and provide support that people with diabetes should strive to reach and maintain a normal weight.

Tobias DK, Pan A, Jackson CL, et al. Body-mass index and mortality among adults with incident type 2 diabetes. *N Engl J Med*. 2014;370:233-244.

Resources

Where Do I Begin?

The American Diabetes Association allows you to order free copies of this booklet to give to patients who are newly diagnosed with type 2 diabetes. They are available in English or Spanish and include information for patients to enroll in a free “Living with Type 2 Diabetes” program. For more information and to place an order, go to http://specialty.kramesstaywell.com/healthcareprovider_orderpage.



PortionMate

This is a tool to help clients easily measure foods at meals and snacks. It comes with a Nutrition and Meal Planning Guide that includes lists of calories and carbohydrates in common foods. For more information or to place an order, go to <http://portionmate.com>

