

VISIONS

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Cooperative Extension

It's Good to Have a Pulse!

Michelle F. Brill, M.P.H., FCHS Educator, Mercer County

Have you eaten your pulse today? That's right, I said eaten not taken! Pulses are a category of plant foods in the legume family and they include lentils, dry peas, chickpeas and beans. Pulses are so important in the world's food supply that the United Nations has declared 2016 as the International Year of Pulses.



Overall, pulses contain all the "good stuff" and none of the "bad stuff". Pulses are packed with protein, fiber, vitamins such as folate, and minerals such as iron, potassium, zinc and magnesium. They have been shown to lower the risk of heart disease and diabetes, lower blood pressure and cholesterol, and help with weight loss. Due to their high folate content, they help prevent certain types of birth defects. Because pulses contain lysine, a building block of protein that helps calcium absorption and helps build muscle, they play a role in bone health. Pulses are rich in phytochemicals and anti-oxidants that may contain anti-cancer properties. Pulses are cholesterol-free, and virtually sodium and fat-free. They are so nutrient-dense that they are considered both a protein and a vegetable. When counted as a



vegetable serving, 1 cup of whole or mashed peas or lentils equals 1 cup of vegetables. When counted as a protein serving, ¼ cup of cooked chickpeas, lentils or peas equals a 1 ounce equivalent. Pulses are also affordable, goodtasting and sustainable. As an agricultural resource, pulse crops are water-efficient, enrich the soil with nitrogen helping other plants to grow, and emit almost no greenhouse gases.

Pulses may help people with diabetes with their blood glucose management since they have a low-glycemic index.

Pulses benefit people with celiac disease because they contain no gluten and their flours can be used in cooking and baking.

Because pulses are so high in fiber it is recommended that you gradually increase your intake and drink plenty of water in order to reduce the side effect of intestinal gas. Adequate fiber intake will keep you regular and prevent constipation. Foods high in fiber give you a feeling of fullness after eating, thus reducing hunger and after-meal food cravings.

Recipes that use pulses are as varied as the countries they come from and the flavors they provide. Pulses are found on all four corners of the planet, excluding the North and South Poles and infertile deserts. The Food and Agriculture Organization of the United Nations has published a document that explores pulses around the world with some of the most prestigious chefs from Brazil, China, India, Mexico, Morocco, Pakistan, Spain, Tanzania, Turkey and the USA. (Find it at http://www.fao.org/3/a-i5528e.pdf). They are used in casseroles, chili, soups, hummus, bean dips, salads, salsa, veggie burgers, falafel, lasagna, tacos and other popular Mexican dishes. They can replace half the meat in ground meat recipes, giving an added nutritional boost while reducing cost.

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Follow MyPlate for Better Health

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Create an eating style that can improve your health now and in the future by making small changes over time. Consider changes that reflect your personal preferences, culture and traditions. Think of each change as a "win" as you build positive habits and find solutions that reflect your healthy eating style. Use the tips and links below to find little victories that work for you. For example, twice a week, make seafood—fish and shellfish—the main protein food on your plate if you are not vegetarian or on a special diet. Seafood contains a range of nutrients, including healthy omega-3 fats. According to the 2015 Dietary Guidelines for Americans, eating about 8 ounces per week (less for young children) of a variety of seafood can help prevent heart disease.









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Focus on whole fruits:

- Focus on whole fruits more often than drinking 100% juice.
- Snack on fresh, frozen, canned, or dried fruits instead of cookies, brownies or other sugar-sweetened treats.
- Offer whole fruits without saturated fat, sodium, or added sugars as dessert.

Vary your veggies:

- Vary your veggies to include green, red, and orange choices.
- Add fresh, frozen, or canned vegetables to salads, side dishes, and recipes.
- Prepare your vegetables without sauces, gravies, or glazes to lower the amount of sodium, saturated fat, and added sugars.

Make half your grains whole grains:

- Choose whole-grain foods more often than refined grains. Make at least half the amount of grains you eat each day whole grains.
- Find high fiber, whole-grain foods by reading the Nutrition Facts label and ingredients list.
- Some common whole grains include oatmeal, whole wheat flour, and popcorn.

Move to low-fat and fat-free dairy:

- Choose low-fat or fat-free milk and yogurt.
- Buy low-fat or fat-free cheese more often than regular cheese.
- Regular cream cheese, butter, and cream are not in the dairy food group because they have little or no calcium. They are also high in saturated fat.

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Build a Better Salad

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Consuming a variety of plant-based foods can provide many health benefits, including potentially reducing the risk for developing chronic diseases such as cancer, heart disease and diabetes. With the right ingredients, salads offer a variety of vitamins, minerals, protein, fiber and antioxidants to promote health. To build a better salad, use the USDA's MyPlate as a guide. Selecting more ingredients from the five major food groups and reducing added ingredients like high-fat, high-sodium dressings, will ensure that your salad contributes to optimal health.





Foundations

For maximum health benefit, create a salad with a base of dark, leafy greens like romaine, spinach or kale. The darker the greens, the more nutritious the salad will be. Darker greens are packed with an array of vitamins and minerals. They are also rich in iron. To make your salad interesting, try different combinations of lettuce and greens such as spinach, kale, endive, Swiss chard, arugula, or even colorful cabbage.

Vegetables

For crunch, choose chopped carrots, corn or broccoli. For wonderful flavor, add mushrooms, onions, beets and green peppers. Get creative by combining an assortment of shapes, sizes and colors. Try different colors of favorite vegetables. Add a burst of color with white, yellow, red or purple carrots; try purple, green or yellow tomatoes. Think about form, too. Don't stop with raw vegetables. Kick your salad up a notch with grilled veggies, and don't hesitate to use frozen or canned vegetables as a convenient way to add variety.

♥ Fruit

Fresh, frozen, canned or dried...adding fruit is an easy way to build salads with unique flavors. Apples, berries, melons, pineapples, and mandarin oranges are a few to try. Dried fruits like raisins and cranberries are also good choices.

Nut and Seeds

Nuts and seeds are loaded with antioxidants and add crunch and texture to salads, and they're also rich in protein and unsaturated fats, which help to keep you full longer. Try sliced or chopped almonds, pistachios, cashews and walnuts, or unsalted pumpkin, sunflower or sesame seeds.

Grains

Whole grains can turn a light salad into a hearty meal. A great source of fiber, whole grains like barley, couscous, quinoa and brown rice are energy-packed additions, that will add to that full feeling.

Protein

Protein helps sustain the body to make it stronger as it builds muscle and nourishes skin, hair and nails. Turn your salad into a satisfying meal with lean sources of protein like chicken, fish (tuna, salmon or grouper) or eggs. Or, opt for plant-based options like tofu, black beans, chickpeas, edamame or kidney beans.

Dairy

Cheese makes flavorful toppings for salads, but it can be high in calories and fat. Add calcium and vitamin D to your salad by sprinkling 1-2 tablespoons of feta, parmesan, mozzarella or cheddar cheese for flavor and nutrition without excessive calories.

Salad Dressings

Burying a salad under dressing that is high-calorie and high-fat can turn a healthy salad into an unhealthy disaster. Opt for a splash of olive oil along with a flavored vinegar, or lighter versions of your favorite dressings. Create your own dressing with Greek yogurt blended with fresh herbs and spices. Regardless of the choice, don't over-dress; a light coating of dressing is best.



For More Information...

Download our fact sheet and recipes at http://njaes.rutgers.edu/pubs/publication.asp?pid=FS1257.



The Low-Carbohydrate Diet---

Is it a Better Option for Diabetes meal planning?

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Diabetes mellitus (diabetes) is a complex and chronic illness with potentially serious consequences that may affect almost every system of the body. According to the Centers for Disease Control and Prevention National Diabetes Statistics Report 2014 about 29.1 million (9.3%) of the adult U.S. population has been diagnosed with diabetes.

Diabetes is characterized by higher than normal blood glucose levels caused by insufficient insulin production and/or ineffective use of insulin in the body (insulin resistance). Treatment strategies for diabetes include lifestyle modifications such as healthy eating and increased physical activity, to encourage a healthy weight, and use of medications, if necessary.

Moderating carbohydrate intake is often a first dietary topic of concern for people living with diabetes. Carbohydrate foods (such as grains, starchy vegetables, milk, yogurt, fruit and sweets) provide necessary energy in the form of glucose but also impact blood glucose levels after eating. Thus, the practice of cutting carbohydrates from the diet is a common reaction for many people with diabetes.



According to the ADA there is currently no standard definition for a low carbohydrate diet. Additionally, there are no standard percentages for the various dietary macronutrients (carbohydrate, proteins and fats) since this is based on individual needs. However, monitoring carbohydrate intake is a useful strategy for improving and maintaining blood glucose control.

For individuals trying to lose weight, a low carb diet may be one dietary option. A low carbohydrate diet may replace calories typically coming from carbohydrate foods with calories from foods containing proteins and fats. A possible concern for some people with diabetes is risk of hypoglycemia, or abnormally low blood glucose, especially during physical activity. This can be avoided with proper education on the interactions of food, physical activity, and medications on blood glucose.

Some people with diabetes use the glycemic index (GI) of foods as a related dietary tool. GI is a measure of how quickly a carbohydrate food causes blood sugar levels to rise after eating. Foods with a higher GI tend to digest and absorb quickly and cause rapid rise in blood glucose levels. Some examples of low GI foods are legumes, whole grains, and some fruits and vegetables. Evidence to date suggests that substituting lower GI food for higher GI foods may modestly improve glycemic control.

Although a low carb diet may have some beneficial effects (at least based on short term research), it can be difficult to adhere to this type of diet indefinitely and its long-term effects are still questionable. Moreover, it is important to note that there is no "one appropriate diet" for everyone with diabetes. Research in fact suggests that a number of different eating patterns (Mediterranean, DASH, low carb, low fat) may be appropriate for people with diabetes.

The **American Diabetes Association** offers tips to manage diabetes with adequate carbohydrate intake within the context of an overall healthy diet:

- **1** Emphasize a variety of nutrient dense carbohydrate foods (vegetables, fruits, legumes, whole grains, and low-fat dairy products) in appropriate portion sizes to promote a healthy eating pattern.
- **2** Consume the recommended amount of dietary fiber each day (25g/day for women and 38g/day for men). Good sources of fiber include plant based foods such as legumes, whole grains, and fruits/vegetables.
- **3** Minimize consumption of foods containing added sucrose (sugars) and other caloric sweeteners to avoid displacing nutrient-dense foods
- 4 Reduce sodium intake to less than 2,300mg/day to improve blood pressure control and kidney health
- **5** Achieve and maintain healthy weight goals

For more tips on healthy eating with diabetes, visit the website of the American Diabetes Association at http://www.diabetes.org/



Mushrooms Offer Unique Nutritional Benefits

Sherri Cirignano, MS, RD, LDN, Family and Community Health Sciences Educator, Warren County



Grams of

Mushrooms have been consumed by man for centuries for a variety of nutritional and medicinal purposes, but not until more recently, have scientists become aware of all of the benefits mushrooms can provide when included as part of a healthful, plant-based diet. Although mushrooms are often lumped into the category of vegetables, they are not vegetables and have some unique characteristics that have had some experts suggesting that they should have their own food kingdom, separate from animals and plants. Stay tuned to find out if a new kingdom will be developed for mushrooms. In the meantime, let's explore how some of these unique characteristics provide nutritional benefits.

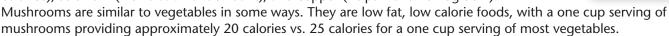
There are two vitamins that mushrooms contain that are primarily
found in animal foods which are vitamins D and B-12.
Mushrooms are the only plant-based food with the ability to
provide a significant vitamin D source. This however, is dependent

Food Type
Shiitake Mushrooms
3.2
Portabella Mushrooms
2.7
Oyster Mushrooms
2.0
White Button Mushrooms
1.9
Blueberries
3.6
Broccoli
5.1

on their exposure to ultraviolet light (UV). Most mushrooms are cultivated and grown in the dark, but those that are grown in the wild are naturally good sources of vitamin D.* Vitamin D sources and their availability is important because vitamin D deficiencies are common in the United States even though our bodies can make vitamin D when exposed to sunlight. Vitamin D has many important roles including promoting the absorption of the minerals calcium and phosphorous, depositing these minerals in bones and teeth and regulating cell growth. The mushroom industry is looking into routinely exposing mushrooms to UV light.

Mushrooms contain a small amount of vitamin B-12 which is a very unique quality as most vitamin B-12 we consume is found in animal products. Vitamin B-12 has important roles in the body including working with folate to make red blood cells, playing a critical role in cell division and growth and possibly contributing to maintaining mental function. Although the type of vitamin B-12 found in mushrooms is the same type that is found in animal foods, and is an important source, the amount in mushrooms is not large enough for vegetarians to rely on as their sole source of the vitamin.

Mushrooms also provide varying amounts of other vitamins and minerals. In general, they are an excellent source of the B vitamin riboflavin, (helps produce energy in all cells of the body) and a good source of the vitamins niacin (key in all aspects of metabolism) and pantothenic acid (helps cells produce energy) and the minerals potassium (helps regulate fluids and mineral balance), selenium (works as an antioxidant), and copper (helps make hemoglobin).



Fiber is present in differing amounts in plant-based foods and is also found in mushrooms. The type of fiber found in mushrooms, known as chitin, is also found in the external skeleton of insects and crustaceans. Fiber is an important part of a healthy diet. Adequate fiber promotes gut health, and may help to reduce the risks for obesity, heart disease, diabetes, and some types of cancer. The recommended fiber intake is specific to a person's calorie intake, but is approximately 30 grams per day. Mushrooms provide a moderate source of fiber and the amount varies with the type of mushroom. See Table 1 for more information.

Mushrooms have unique qualities that make them a great, nutritious addition to any diet. Enjoy a variety of mushrooms as part of a healthful diet that includes other whole plant foods including vegetables, fruits, whole grains and legumes.

*Picking wild mushrooms is not recommended for anyone who has not undertaken extensive study in mushrooms. Many varieties of mushrooms are toxic.





Challenge Yourself to Save Money

Barbara O'Neill, Ph.D., CFP®, Financial Specialist, Rutgers Cooperative Extension



The year is a little more than half over, making this a good time to make a "mid-year resolution" to save money for emergencies, retirement, or other financial goals. What is the best way to save? There is no one right answer.

Automatic payroll deductions work well for many people. Others save loose change in a jar and deposit it periodically in a savings account. A third way to save money is to complete a savings challenge. While many people start challenges in January, as a New Year's resolution, they can begin at any time.

Below is a description of five savings challenges and how they operate:

✓ The 52-Week Money Challenge-One of the oldest challenges (original source unknown), a saver begins with a \$1 deposit during Week #1. The weekly deposit rises by \$1 per week and reaches \$52 during the final week of the Challenge (Week #52), with total savings of \$1,378. Some people do the 52-Week Money Challenge in reverse from \$52 down to \$1. A third way is to pick an amount each week that you can afford and complete the challenge in any order. Tracking forms are available at http://walton.ifas.ufl. edu/fcs/files/2014/01/52-Week-

✓ The 52-Week Youth Money Challenge- This challenge is for parents to use with their children. Weekly savings deposits are 10 weeks each of \$1, \$2, \$3, \$4, and \$5, resulting in \$150 of savings. Week #51 is an optional \$25 from birthday gifts and Week #52 an optional \$25 from holiday gifts (\$200 total). There is also an option for parents to provide a 50% (\$100) match, resulting in total annual savings of \$300. See http://www.slideshare. net/BarbaraONeill/52-week-moneychallenge-for-youth0315.

Money-Challenge.pdf

✓ The 15-Week Savings Challenge-This challenge is for high school and

college students and adults with short-term financial goals. See http://www.slideshare.net/BarbaraONeill/15-week-college-student-money-challenge0715. The Basic Challenge includes five weeks of \$10 savings, five weeks of \$20 savings, and five weeks of \$30 savings, resulting in a total accumulation of \$300. The "Hard Core" Challenge starts with a \$10 weekly deposit and ramps up the savings deposit by \$5 per week for a final deposit of \$80, resulting in a total accumulation of \$675.

The \$2,500 Savings Challenge

This challenge features two weeks "off" (at the saver's discretion) and a reduced final deposit.

Week #	Deposit	Total	Completion Check-Off	Week #	Deposit	Total	Completion Check-Off
1	\$2	\$2		26	\$52	\$702	
2	\$4	\$6		27	\$54	\$756	
3	\$6	\$12		28	\$56	\$812	
4	\$8	\$20		29	\$58	\$870	
5	\$10	\$30		30	\$60	\$930	
6	\$12	\$42		31	\$62	\$992	
7	\$14	\$56		32	\$64	\$1,056	
8	\$16	\$72		33	\$66	\$1,122	
9	\$18	\$90		34	\$68	\$1,190	
10	\$20	\$110		35	\$70	\$1,260	
11	\$22	\$132		36	\$72	\$1,332	
12	\$24	\$156		37	\$74	\$1,406	
13	\$26	\$182		38	\$76	\$1,482	
14	\$28	\$210		39	\$78	\$1,560	
15	\$30	\$240		40	\$80	\$1,640	
16	\$32	\$272		41	\$82	\$1,722	
17	\$34	\$306		42	\$84	\$1,806	
18	\$36	\$342		43	\$86	\$1,892	
19	\$38	\$380		44	\$88	\$1,980	
20	\$40	\$420		45	\$90	\$2,070	
21	\$42	\$462		46	\$92	\$2,162	
22	\$44	\$506		47	\$94	\$2,256	
23	\$46	\$552		48	\$96	\$2,352	
24	\$48	\$600		49	\$98	\$2,450	
25	\$50	\$650		50	\$50	\$2,500	

Developed by Dr. Barbara O'Neill, Rutgers Cooperative Extension, oneill@aesop.rutgers.edu







Follow MyPlate for Better Health - continued from page 2

Vary your protein routine:

- Mix up your protein foods to include seafood, beans, nuts, seeds, soy, eggs, lean meats, and poultry.
- Add beans or peas, unsalted nuts and seeds, and soy in main dishes and snacks.
- Select seafood twice a week, including fish and shellfish.
 - 1. Eat a variety of seafood. Include some that are higher in omega-3s and lower in mercury, such as salmon, trout, oysters, Atlantic and Pacific mackerel, herring, and sardines.
 - 2. Keep it lean and flavorful. Try grilling, broiling, roasting, or baking. Avoid breading or frying seafood creamy sauces, which add calories and fat. Using spices or herbs, such as dill, chili powder, paprika, or cumin, and lemon or lime juice, can add flavor without adding salt.
 - 3. Shellfish counts too! Oysters, mussels, clams, and calamari (squid) all supply healthy omega-3s. Try mussels marinara, steamed clams, or pasta with calamari.
 - 4. Keep seafood on hand. Canned salmon, tuna, or sardines, is quick and easy to use. Canned white tuna is higher in omega-3s, but canned "light" tuna is lower in mercury.
 - 5. Cook it safely. Check oysters, mussels, and clams before cooking. If shells don't clamp shut when you tap them, throw them away. After cooking, also toss any that didn't open. This means that they may not be safe to eat. Cook shrimp, lobster, and scallops until they are opaque (milky white). Cook fish to 145 °F, until it flakes with a fork.
 - 6. Enjoy seafood portions. To eat 8 ounces of seafood a week, approximately a drained can of tuna is about 3 to 4 ounces, a salmon steak ranges from 4 to 6 ounces, and 1 small trout is about 3 ounces. Enjoy this protein source.

Compare the saturated fat, sodium and added sugars in your foods and beverages:

- Read the Nutrition Facts labels to find products with less saturated fat and sodium.
- Use the ingredient list to find choices with less added sugars.
- Cut back on sugary beverages such as fruit drinks and soda.

See more at:

http://www.choosemyplate.gov/start-small-changes#sthash.JeASvdK4.dpuf

Challenge Yourself to Save Money - continued from page 6

- ✓ The \$2,500 Savings Challenge- This challenge begins with a \$2 deposit during Week #1. The weekly deposit rises by \$2 and reaches a high of \$98. There are two weeks "off" at a saver's discretion and a \$50 deposit during the final week (Week #50), with total savings of \$2,500. Like the 52-Week Money Challenge, this challenge can be done forward, backward, or in any order that works for individual savers. See http://www.slideshare.net/BarbaraONeill/50-week-2500-savings-challenge.
- ✓ The 30-Day \$100 Savings Challenge- This challenge (see http://www.slideshare.net/BarbaraONeill/30-day-100-savings-challenge-0416) encourages people to save \$100 in 30 days in a series of gradually increasing deposits: \$1 for five days, \$2 for five days, \$3 for five days, \$4 for five days, and \$5 for ten days. Once the monthly savings goal is reached, the Challenge can be repeated on a month-to-month basis for total annual savings of \$1,200. When the Challenge starts to feel "easy," it can be scaled up by doubling or tripling the daily savings amounts.

Want to save money for future financial goals? Challenge yourself and/or your children to save by completing one of the five savings challenges described above. For links to all of the saving challenges in one place, visit the Rutgers Cooperative Extension Money and Investing web site: http://njaes.rutgers.edu/money/.







It's Good to Have a Pulse! - continued from page 1

Whereas chickpeas and dry beans require pre-soaking before cooking, lentils and dry split-peas do not. Pre-cooked chickpeas and beans can be purchased in cans but remember to drain and rinse the salty liquid from them before using. Dry, uncooked pulses should be stored in a sealed container in a cool, dry place. Cooked pulses should be refrigerated at 40° and used within three days.

"Hummus is Conquering America" reads the headline of a 2013 Wall Street Journal article (http://www.wsj.com/articles/SB10001424127887323798104578453174022015956). This dish's popularity has grown into a market with sales grossing over half a billion dollars a year. The base of hummus: chickpeas! Here's a great hummus recipe for you to make at home:





Ingredients:

- 2 cups (450 g.) of chickpeas
- 3 or 4 Tbsp. Tahini (sesame paste)
- 1 clove garlic
- 1 tsp. salt
- 1 tsp. cumin
- 2 Tbsp. lemon juice
- 1 Tbsp. olive oil
- 1 Tbsp. sesame oil
- Pepper and paprika to taste
- Soak the chickpeas in a large container covered in plenty of water for 6 hours. The chickpeas will swell. Drain and place them in a pot, add water and bring to a boil. *
- Lower the heat and simmer covered, adding more water if necessary, and cook for 1½ hours.*
- Drain chickpeas keeping the cooking water, and then put them along with a small amount of cooking water in a blender.
- Add the tahini, garlic, cumin and lemon juice.

- While blending, add the olive oil to make a smooth, velvety consistency, and then season with salt.
- Sprinkle with cumin, paprika and pepper to taste. Sesame oil and olive oil are also optional to be added to taste.
- Serve as a dip with veggies, pita bread or pita chips.
- *Note: If canned chickpeas are used, skip the soaking and cooking stage, but they must be dried before mixing with the rest of the ingredients.

Source: Pulses Nutritious Seeds for a Sustainable Future. Food and Agriculture Organization of the United Nations, 2016.

For further information and recipes: http://www.fao.org/pulses-2016/en/ • www.pulses.org www.northernpulse.com • www.aq.ndsu.edu/food