THE UNIVERSITY OF MAINE Cooperative Extension

Bulletin #4365

Dining with Diabetes
B for Blood Pressure

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High blood pressure (hypertension) increases risk for diabetes complications including those of the heart, kidneys, and eyes. The top blood pressure number, when the heart pumps, is the systolic pressure, and the bottom number, between pumps, is diastolic pressure. The American College of Cardiology and American Heart Association guidelines consider your blood pressure to be elevated if your systolic pressure is above 120 or your diastolic pressure is above 80. You are considered to have hypertension if your systolic pressure is equal to or greater than 140 or your diastolic pressure is equal to or greater than 90. Fortunately, there are several things you can do to help control blood pressure:

1. Maintain a healthy weight.
2. Take prescribed medications according to your health care providers' instructions.
3. If you drink alcohol, do so in moderation.
4. Participate in regular physical activity.
5. If you smoke, get help to quit, and stop smoking.
6. If your diet contains inadequate calcium, potassium or magnesium, discuss supplements with your health care provider.
7. Follow the Dietary Approaches to Stopping Hypertension (DASH) recommendations.

DASH: Dietary Approaches to Stopping Hypertension

Researchers have investigated the relationship between diet and blood pressure. Both people with, and those without, hypertension showed improved blood pressures as a result of following the DASH diet. Researchers suspected improvement in blood pressure was due in part to calcium, potassium, and magnesium in the DASH diet. In subsequent studies researchers found blood pressure improved even more with dietary sodium restriction.

The number of servings from each food group is displayed as a range because the amount from each food group depends on a person's individual calorie needs.

The DASH diet recommendations are as follows:

- Grains: 6 to 11 servings per day (Whole grains are recommended for most grain servings as a good source of fiber and nutrients)
- Vegetables: 3 to 6 servings per day
- Fruits: 4 to 6 servings per day
- Fat-free or low-fat milk: 2 to 3 servings per day
- Lean meats, poultry, and fish: 3 to 6 ounces per day
- Nuts, seeds, and legumes: 3 to 7 servings per week
- Fats and oils: 2 to 3 servings per day
- Sweets and added sugars: 0 to 2 per day (a serving is equivalent to one tablespoon table sugar)

> **Limit your sodium intake to 2,300 mg per day; most of the sodium we consume is already in processed foods when we buy them.**

Since the DASH diet was not developed for people with diabetes, meals based upon it can be too high in carbohydrates to maintain good blood sugar levels. The *Plate Method* described in University of Maine Cooperative Extension bulletin #4363, *Meal Planning Using the Plate Method*, and in the Dining with Diabetes videos (extension.umaine.edu/food-health/dining-with-diabetes/videos/), meets DASH guidelines while also controlling for carbohydrates.

Sodium

Aim for limiting your sodium intake to 2,300 mg per day. This is equal to about one teaspoon of table salt (sodium chloride). Depending upon your blood pressure, your health care provider may recommend further reduction to less than 1,500 mg per day. The DASH researchers demonstrated that the less sodium you consume, the more you may be able to lower your blood pressure.

1. Prepare more food from scratch because most of the sodium we consume is already in processed foods when we buy them.
2. Avoid processed meats like bacon, sausage, cold cuts, and jerky.
3. Remove the saltshaker from the table.
4. Instead of adding salt when cooking, use sodium-free herbs, spices, lemon, lime, vinegar, wine, and seasoning blends. Be careful not to use seasonings that contain sodium.
5. Read the nutrition facts label on food packages. Select foods that have 10% or less of the Daily Value (%DV) for sodium. Foods containing 20% or more of the Daily Value are high in sodium.
6. Choose foods labeled as sodium free or low sodium. Those labeled as reduced sodium may still be high in sodium.
7. Check labels to be sure salt or sodium hasn't been injected into fresh chicken, pork, and other meats.
8. Use caution when dining out. Many chain restaurants provide nutrition information for their menu items. Apps and books are also available, but recipes and menus frequently change, so be sure it's up-to-date.
9. If you use canned vegetables, look for those with reduced sodium. Draining and rinsing canned vegetables in a colander under cold running water for one minute will reduce sodium. Better yet, try to use fresh or frozen.
10. Since we get used to the flavor of high sodium foods, you may find it best to reduce sodium gradually. Give yourself time to get used to the flavor. Many find that once they get used to using less sodium at home, processed foods and those served in restaurants taste far too salty.
11. Use a sodium content guide, such as University of Maine Cooperative Extension bulletin #4059, *Sodium Content of Your Food* or an App when creating your grocery-shopping list and when selecting products in the store.
12. Check with your health care provider before using a potassium chloride salt substitute. If you take certain medications, use of potassium chloride salt substitutes can cause blood levels of potassium to become too high. Since foods contain less naturally occurring potassium, this generally isn't an issue with foods.

Don't Drink Milk?

There are a number of reasons why some people prefer not to drink milk even though it's part of the DASH and *Plate Method* diets. Milk is a good source of calcium, potassium, protein, riboflavin, and vitamin D, but many adults avoid milk because they are lactose intolerant. Lactose intolerance is when you have a limited amount of an enzyme called lactase needed to digest lactose, the naturally occurring sugar in milk. As a result, they may experience cramping, gas, and possibly even diarrhea after drinking milk. Some people may still be able to drink a small glass of milk without any issues, but if they drink a large glass, they experience the side effects. Fermented dairy products like yogurt and kefir, as well as natural hard cheeses, are often better tolerated because they usually contain less lactose than milk. You may purchase lactose-reduced or lactose-free cow's milk products. There are also a variety of milk substitutes made from soy, rice or almonds. Be sure to compare the nutrition facts panel on the labels of these products to the label on milk to ensure they contain at least the same amounts of calcium, potassium, riboflavin, vitamin D, and protein. Some of these products contain less carbohydrate than milk.

Salt-free Seasoning Mix

1 teaspoon dried thyme
1 teaspoon dry mustard
1 ½ teaspoons dried oregano
½ teaspoon onion powder
1 ½ teaspoons garlic powder
¼ teaspoon dill weed
2 teaspoons paprika

Combine and place in an airtight container; store in a cool place. Use in place of salt

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