

Make the DASH to Lower Your Blood Pressure

An eating plan that naturally lowers weight and blood pressure

If you have type 2 diabetes, you may also have high blood pressure. High blood pressure is a big risk factor for heart disease. It's also a risk factor for stroke. In the U.S., 73 percent of people with type 2 diabetes are thought to have high blood pressure. One sure way to lower blood pressure is to eat foods low in sodium.

You may have heard about the DASH study. DASH stands for Dietary Approaches to Stop Hypertension. It showed that you can lower blood pressure a lot with changes to your diet. DASH suggests that you:

- eat a diet rich in fruits, veggies and low-fat dairy foods
- keep your diet low in total and saturated fats.

A new study, DASH-Sodium, found more good news. They changed the DASH diet to keep sodium levels low. . The results they saw were better. The study found that:

- systolic blood pressure (the upper number) fell by 8.9 mmHg
- diastolic blood pressure (the lower number) fell by 4.5 mmHg.

These results were big; they are almost the same that you get with a blood pressure medicine. .

DASH is a very healthy eating plan. Christine McKinney, M.S., agrees. McKinney is a diabetes educator at Johns Hopkins. But she says that most people don't know about DASH. DASH lowers weight and blood pressure in a natural way. This helps to manage diabetes.

Watch for sodium, not just salt

When we think of sodium, we think of salt. There are a few key things to know, such as:

- table salt (sodium chloride) is the most common form of sodium in food
- not all sodium is found in salt
- dietary advice and nutrition labels on foods list "sodium" instead of just "salt."

Keep in mind, sodium in all its forms raises fluid buildup in the blood. This forces the heart to pump harder. It also places more pressure on the blood vessels.

Determining the correct amount of salt

You should aim for 2,400 mg of sodium each day. This is if you have diabetes and your blood pressure is normal. But if your blood pressure is high, you should eat even less. This advice is from the American Diabetes Association.

Picture one teaspoon of table salt. This is about 2,400 mg of sodium. Most people in the U.S. eat much more than this. They eat 3,000 to 6,000 mg of sodium.

The DASH-Sodium study found good news. Blood pressure was lower for people on low sodium diets. This was true for all groups in the study. But people who ate the least -sodium did the best. . They ate 1,500 mg or less per day (two-thirds of a teaspoon of salt).

If you have type 2 diabetes, you must be careful with salt. Most people with diabetes are sensitive to salt. This means your blood pressure responds directly to the sodium you eat. The more sodium in your diet, the higher your blood pressure.

Load up on fruits and vegetables

If you have type 2 diabetes, the best way to lower or prevent high blood pressure is with changes to your diet. These changes will help:

- eat a low-sodium diet
- get plenty of fruits and veggies
- eat low-fat dairy foods.

This diet also will make sure that you get enough minerals. This includes calcium, magnesium and potassium. These have all been shown to help lower high blood pressure.

Fruits and veggies are naturally low in sodium. They are more so than most processed foods. This is why the DASH plan can lower sodium and blood pressure at the same time. Also, fresh veggies are very good for people with diabetes. This is because fresh veggies are:

- low in fat
- low in calories
- have few carbs.

(This isn't true for corn, potatoes, winter squash, peas and lima beans. These starchy veggies do have carbs.)

If you're eating canned veggies, be sure to rinse them before cooking. This gets rid of some of the sodium in the liquid.

Many frozen veggies are also good choices. But be sure to read the nutrition label. Some contain cheese, butter or sauces. These raise the sodium content as well as the total calories.

Get sodium-busting minerals

There is another key reason why the DASH plan works. It is because many of the foods in the plan are high in minerals. Minerals reduce sodium's bad effect on blood pressure. These minerals include:

- potassium
- magnesium
- calcium.

Fruits and veggies high in potassium include:

- leafy greens (like spinach and kale)

- root vegetables (like carrots and turnips)
- fruits from vines
- whole grains
- bananas (a great source of potassium).

Also good are low-fat milk and yogurt. These are rich in calcium. And they have potassium and magnesium as well.

McKinney also advises not to eat all your day's fruits, dairy foods or veggies in one sitting. Instead, spread them throughout the day. This will ensure that you get the most benefits from these foods. And it will lessen your risk of blood sugar spikes. It will also improve absorption.

A nutritionist can help you with this. So can a diabetes educator. They can fit the DASH plan to your taste and nutritional needs.

Other benefits of low-sodium eating

You can get lots of benefits from eating low-sodium foods. It will lower your blood pressure. But you may find more benefits, too. These include:

- Not as many headaches for people who eat 1,500 mg or less each day
- Lower risk factors for heart disease. This is due to lower blood levels of the amino acid, homocysteine
- A lower risk for metabolic syndrome. Risk factors include:
 - high blood pressure
 - large waist size
 - high blood fat levels
 - low HDL cholesterol
 - high blood sugar levels.

In more good news, low-sodium eating with DASH can help with the following:

- protect you from stroke, osteoporosis and kidney stones
- help blood pressure meds work for those with diabetes.

Look forward to results

Be patient as you make these changes. It may take time for your taste buds to adapt to foods with less sodium. Also, the benefits of a lower-sodium diet may not show up at first. It may take at least five weeks to show up in your blood pressure readings.

Even if you do see quick results, don't stop taking your blood pressure meds. Talk with your doctor first. And don't forget to cheer yourself on. You're "making the DASH." And you're taking big strides toward a more healthy life.

Get more information on the DASH eating plan. Get sample menus and healthy recipes. Visit the National Institutes of Health website at:

<http://www.nhlbi.nih.gov/health/public/heart/hbp/dash/>

Sodium-busting tips

- **Flavor with herbs.** Season meals with herbs and spices. Use lemon juice, lime juice, vinegar or salt-free seasoning blends. Caution: Don't use salt substitutes with potassium chloride without your doctor's okay.
- **Choose prepared foods with care.** Of all the sodium we eat in a day, only 5-10 percent comes from what we add while cooking or at the table. Another 10 percent is found naturally in foods. And 75 percent comes from food manufacturers. Sodium is used as a preservative in most packaged foods.
- **Understand nutrition labels.** Foods labeled "reduced sodium" have 25 percent less sodium than regular kinds of the same food. But that may still be high. Packaged foods that are low in sodium are labeled "low sodium" have 140 mg or less per serving. "Very low sodium" is 35 mg or less. "Salt-free" is less than 5 mg of sodium.
- **Be aware of hidden sources of sodium.** The worst types of foods are:
 - processed meats (hot dogs, sausages and cured ham)

- canned and dehydrated soups
- most cheeses
- frozen prepared foods (such as frozen entrees)
- sauces and condiments (ketchup, barbecue sauce and soy sauce)

Limit your use of these. Look for low-sodium versions.

- **Eat in when possible.** Cook at home instead of eating out. This lets you control how much sodium you eat. Restaurants, especially fast food chains, often use ingredients that are very high in sodium. If you do eat out, ask for:
 - less salt in your meal
 - a lower-sodium alternative
 - sauces on the side

- **Play the field.** Be sure to include a variety of healthy foods in your daily diet. Especially key are fruits and veggies. Also note, a vitamin pill is not as nutritional as fresh foods. A piece of fruit or a serving of veggies is better for you.

*****Authored by Johns Hopkins University and Johns Hopkins Health System*****