

# **James L. Holly, M.D.**

## **Hypertension: Part V Dash Diet Continued**

**By: James L. Holly, MD**

The DASH diet encourages patients to take the following steps in order to lower their blood pressure:

- Reduce the overall amount of fat, saturated fat and cholesterol.
- Increase the number of fruits, vegetables and low-fat dairy foods.
- Increase fiber intake by including whole grain products.
- Reduce the amount of sodium (e.g., salt) to preferably 2,400 milligrams or 1,500 milligrams per day.
- Reduce sweets and sugar-containing beverages.

Overall, the DASH diet is rich in minerals such as magnesium, potassium and calcium, as well as protein and fiber, while low in fat, cholesterol and sodium.

Patients in the DASH study who used the diet were able to lower their blood pressure to the same extent as other patients who took antihypertensives. Patients are encouraged to speak with their physician about whether the DASH diet might be used as a replacement for medications. However, no one should abruptly stop taking their medications or begin this diet without first consulting their physician.

### **About the DASH Diet**

The DASH diet is a set of dietary guidelines for people with high blood pressure (hypertension). Not only has research shown the diet to significantly lower blood pressure, but it also appears to lower cholesterol levels and homocysteine levels.

The DASH plan is based on a 2,000-calorie diet, but can be adjusted according to individual needs. The DASH diet guidelines are presented below for information and educational purposes only. Patients should not make any diet or medication changes before consulting with their physician. The general guidelines are as follows:

- Seven to eight servings each day of grains or grain products. These include breads, cereals and pastas. Grains are important sources of fiber, vitamins and minerals. Each serving should be prepared with as little added fat or sugar as possible.
- Four to five servings of vegetables each day. Vegetables are a good source of potassium, magnesium and fiber. This category of the DASH diet includes beans, potatoes, squash and others as well as the more common vegetables such as spinach, broccoli and corn.
- Four to five servings of fruit each day. This category of the DASH diet

includes all fruits, even exotic selections like kiwi, mangos, currants and figs. The fruits may be eaten fresh, canned, frozen, dried, blended in 100 percent fruit juices or in any other pure form.

- Two to three servings each day of low-fat or non-fat dairy products. These are a major source of protein and calcium. This category includes fat-free (skim) and low-fat (1 percent) milk, and milk products.
- No more than two servings each day of meats, poultry or fish. High in protein and magnesium, this category includes red meat and white meat, as well as meat alternatives, such as eggs or tofu. It also includes shrimp, fish and other types of seafood.
- Four to five servings each week of nuts, seeds and legumes. While rich in magnesium, potassium, protein and fiber, recommended portions are small because the items in this category are high in fat. It includes all types of nuts, peanut butter, beans and lentils.
- No more than three servings each day of fats. These fats include butter, margarine, salad dressing and mayonnaise.
- No more than five servings each week of sweets. These include sugar, maple syrup, jelly, hard candies, fruit punches, and more.
- Lower intake of sodium preferably from 1500 (two-thirds teaspoon table salt) to 2,400 (one teaspoon of table salt) milligrams per day. These amounts include all the salt consumed during the day, including the naturally occurring sodium in foods as well as that added in cooking and added at table.

### **Sample DASH menu**

Here is an example of a typical day on the

DASH diet. Breakfast:

Bagel

1 medium bagel with butter (two servings of grains, one serving of fat). 6 oz. glass of orange juice (one serving of fruit).

1 cup low-fat cottage cheese (one serving of dairy).

Snack:

Fruit and Nuts

1 medium plum (one-half serving of fruit). 1/3 cup mixed nuts (one serving of nuts).

Lunch:

Chicken Pita

3 oz. cooked chicken (one serving of meat).  
1 small white or whole-wheat pita (one serving of grains). 1/2 cup lettuce (one-half serving of vegetables).  
1/4 tomato, sliced (one-half serving of vegetables).  
1-1/2 oz. low-fat cheddar cheese (one serving of dairy).

**Snack:**

Pretzels and Carrots  
1 oz. pretzels (one serving of grains).  
1/2 cup raw carrots (one serving of vegetables).

**Dinner: Cajun Shrimp**

3 oz. cooked shrimp (one serving of fish). 1 cup cooked rice (two servings of grains).  
1/2 cup chopped peppers (one serving of vegetables).  
1 cup tomato sauce (two serving of vegetables) and assorted seasonings. 1 medium slice of cornbread (one serving of grains).  
1 teaspoon olive oil (one serving of fat).

**Dessert:**

Strawberry-Banana Smoothie  
1 medium banana (one serving of fruit). 1/2 cup strawberries (one serving of fruit).  
4 oz. nonfat vanilla yogurt (one-half serving of dairy). 3 oz. mixed-fruit juice (one-half serving of fruit).

**Lactose Intolerance and the DASH Diet**

The DASH diet calls for two to three servings each day of low-fat or non-fat dairy products. However, some people cannot tolerate lactose (a sugar found in dairy products). Lactose intolerance can cause people to experience stomach cramps, bloating, nausea and/or diarrhea after consuming dairy products. They experience these symptoms because their bodies do not produce enough of the enzyme lactase, which breaks down lactose .

Patients who are lactose intolerant can stay true to the DASH diet by using specialty products. Lactose-free or reduced-lactose milk is sold in the dairy case of most supermarkets. In addition, lactase enzymes can be purchased in liquid or pill form. The liquid can be added directly to dairy products to neutralize the

lactose contained in them. Pills can be taken in capsule or chewable tablet form immediately before consuming the dairy product. Any of these methods can enable a lactose intolerant person to stay on the DASH diet.

### **Nutrition Profile of the DASH Diet**

Those who follow the DASH diet will get two to three times the amount of some nutrients as the average American. Based on a 2,000-calories diet, a DASH dieter will be getting the following daily nutrients:

	<b><u>DASH Diet</u></b>	<b><u>Average American Diet</u></b>
<b><u>Calcium</u></b>	<b><u>1200 mg</u></b>	<b><u>450 mg</u></b>
<b><u>Carbohydrates</u></b>	<b><u>55 percent</u></b>	<b><u>48 percent</u></b>
<b><u>Cholesterol</u></b>	<b><u>150 mg</u></b>	<b><u>300 mg</u></b>
<b><u>Fiber</u></b>	<b><u>30 grams</u></b>	<b><u>9 grams</u></b>
<b><u>Fat</u></b>	<b><u>27 percent</u></b>	<b><u>37 percent</u></b>
<b><u>Saturated Fat</u></b>	<b><u>6 percent</u></b>	<b><u>16 percent</u></b>
<b><u>Monounsaturated Fat</u></b>	<b><u>13 percent</u></b>	<b><u>13 percent</u></b>
<b><u>Polyunsaturated Fat</u></b>	<b><u>8 percent</u></b>	<b><u>8 percent</u></b>
<b><u>Magnesium</u></b>	<b><u>484 mg</u></b>	<b><u>165 mg</u></b>
<b><u>Potassium</u></b>	<b><u>4566 mg</u></b>	<b><u>1700 mg</u></b>
<b><u>Protein</u></b>	<b><u>18 percent</u></b>	<b><u>15 percent</u></b>
<b><u>Sodium</u></b>	<b><u>1500 to 2400 mg</u></b>	<b><u>3000 mg</u></b>

Research has shown that DASH dieters can lower their blood pressure even further if they eat more potassium-rich foods and decrease their sodium intake to 1500 milligrams per day.

### **Widespread Benefits**

If your blood pressure is normal, the DASH diet may help you avoid blood pressure problems. If you have prehypertension, the DASH diet may lower your risk of developing high blood pressure

-- and all of the risks that go along with it -- as you age. For more severe high blood pressure, it may allow you to reduce your medication. However, don't stop or alter your medication without first consulting your doctor.

The DASH diet can't do it alone, though. It's important that you take other steps to control or prevent hypertension, such as:

- \* Exercising
- \* Losing excess weight, if necessary
- \* Not smoking
- \* Reducing sodium
- \* Limiting alcohol

## **More Than a Hypertension Diet**

The DASH diet may improve your health in other ways. Fruits and vegetables may reduce your risk of some cancers. The calcium in dairy products can lower your risk of osteoporosis. And a diet low in saturated fat and cholesterol can reduce your cardiovascular disease risk. The diet also lowers the amount of homocysteine in your blood, which when high is another risk factor for cardiovascular disease. An additional plus: The diet is made up of foods readily available at your local grocery store.