# **DASH Diet**

Studies have shown that blood pressure can be lowered by following the DASH eating plan and by eating less salt (sodium).

Following the <u>Dietary Approaches to Stop Hypertension</u> (DASH) eating plan or reducing your intake of salt (sodium) will lower blood pressure, but combining both will provide the biggest benefit.

The following measures - adapted from the U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES, National Institutes of Health, National Heart, Lung, and Blood Institute - may help prevent the development of high blood pressure.

## Sodium intake & high blood pressure

The DASH studies were based on two levels of sodium intake--1,500 and 2,300 milligrams per day. 2300 milligrams is the highest level considered acceptable by the National Institute of Health and Health Canada.

Following the 1,500 milligram level of sodium per day can lower blood pressure further. It is also the amount recommended by the Institute of Medicine that most people should try to achieve.

More than 65 million American adults suffer from high blood pressure (one in three). An estimated 28 per cent (59 million adults) have prehypertension, a condition that also increases the chance of heart disease and stroke.

High blood pressure can be controlled if you take these steps:

- Maintain a healthy weight.
- Be moderately physically active on most days of the week.
- Follow a healthy eating plan, which includes foods lower in sodium.
- If you drink alcoholic beverages, do so in moderation.
- If you have high blood pressure and are prescribed medication, take it as directed.

All steps but the last also help to prevent high blood pressure.

#### How do I do the DASH?

The DASH diet can easily be part of a healthy diet for people with diabetes. It emphasizes whole grains, vegetables and fruits, low-fat dairy products, lean meats, and is low in saturated and trans fats.

The DASH eating plan used in the studies calls for a certain number of daily servings from various food groups. The number of servings you require may vary, depending on your caloric needs.

The DASH eating plan used along with other lifestyle changes can help you control blood pressure. If your blood pressure is not too high, you may be able to control it entirely by

changing your eating habits, losing weight if you are overweight, getting regular physical activity, and cutting down on alcohol. The DASH eating plan also has other benefits, such as lowering LDL (%bad+) cholesterol, which, (along with lowering blood pressure), can reduce your risk for getting heart disease.

Here is an example of a DASH eating plan:

Food group		Daily servings (Kcals per day)			Serving sizes	
	1600	2000	1600	3100		
Grains	6	6-8	10-11	12-13	<ul> <li>1 slice bread</li> <li>1 ounce dry cereal</li> <li>1/2 cup cooked rice, pasta, cereal</li> </ul>	
Vegetables	3-4	4-5	5-6	6	<ul> <li>1 cup raw leafy vegetables</li> <li>½ cup cut up raw or cooked vegetables</li> </ul>	
Fruits	4	4-5	5-6	6	<ul> <li>1 medium piece of fruit</li> <li>½ cup dried fruit</li> <li>½ cup fresh, frozen or canned fruit</li> <li>½ cup fruit juice</li> </ul>	
Fat-free or low-fat milk and milk products	2-3	2-3	3	3-4	<ul> <li>1 cup milk or yogurt</li> <li>1 ½ ounce cheese</li> </ul>	
Lean meats, poultry and fish	3-6	m6	6	6-9	1 ounce cooked meats, poultry, fish, 1 egg	
Nuts, seeds and legumes	3/wk	4- 5/wk	1/day	1/day	<ul> <li>1/3 cup nuts</li> <li>2 tbsp peanut butter</li> <li>2 tbsp of seeds</li> <li>½ cup cooked legumes</li> </ul>	
Fats and oils	2	2-3	3	4	<ul> <li>1 tsp soft margarine (non-hydrogenated)</li> <li>1 tsp vegetable oil</li> <li>1 tbsp mayonnaise</li> <li>2 tbsp salad dressing</li> </ul>	
Sweets and added sugars	0	m 5/wk	m 2/day	m 2/day	<ul> <li>1 tbsp sugar</li> <li>1 tbsp jelly or jam</li> <li>½ cup sorbet, gelatin</li> <li>1 cup lemonade</li> </ul>	

A recent study showed that people can lose weight while following the DASH eating plan and lowering their sodium intake. In a study of 810 participants, 1/3 were taught how to lower their sodium intake and follow the DASH eating plan on their own. Most of them needed to lose weight as well. They followed the DASH eating plan at lower calorie levels and they increased their physical activity. Over the course of 18 months, participants lost weight and improved their blood pressure control.

Combining the DASH eating plan with regular physical activity, such as walking or swimming, can help you shed pounds and stay trim for the long term. You can do an activity for 30 minutes at one time, or choose shorter periods of at least 10 minutes each. The important thing is to get a total of 30 minutes of activity each day. (To avoid weight gain, aim for 60 minutes per day.)

You should be aware that the DASH eating plan has more daily servings of fruits, vegetables, and whole grain foods than you may be used to eating. Because the plan is high in fibre, it can cause bloating and diarrhea in some people. To avoid these problems, gradually increase your intake of fruit, vegetables, and whole grain foods.

Twenty-three hundred milligrams of sodium equals about six grams, or one teaspoon, of table salt (sodium chloride); 1,500 milligrams of sodium equals about four grams, or 2/3 teaspoon, of table salt.

## **Getting started with the DASH diet**

### Change gradually

- If you now eat one or two vegetables a day, add a serving at lunch and another at dinner.
- If you don't eat fruit now or have juice only at breakfast, add a serving to your meals or have it as a snack.
- Gradually increase your use of fat-free and low-fat milk and milk products to three servings a day. For example, drink milk with lunch or dinner, instead of soda, sugarsweetened tea, or alcohol. Choose fat-free (skim) or low-fat (one per cent) milk and milk products to reduce your intake of saturated fat, total fat, cholesterol, and calories and to increase your calcium.
- Read the <u>Nutrition Facts label</u> on margarines and salad dressings to choose those lowest in saturated fat and trans fat.
- Limit lean meats to six ounces a day- it is all you need. Have only three ounces at a meal, which is about the size of a deck of cards or computer mouse.
- If you now eat large portions of meats, cut them back gradually. by a half or a third at each meal.
- Include two or more vegetarian (meatless) meals each week.
- Increase servings of vegetables, brown rice, whole wheat pasta and cooked dry beans in meals. Try casseroles, and stir-fry dishes, which have less meat and more vegetables, grains, and dry beans.

#### **Healthy snacks & desserts**

• Fruits and other lower fat foods offer great taste and variety. Fresh fruits require little or no preparation. Use fruits canned in their own juice or packed in water. Dried fruits are a good choice to carry with you or to have ready in the car.

• Try these snack ideas: unsalted rice cakes/crackers; nuts mixed with raisins; graham crackers; fat-free and low-fat yogurt and frozen yogurt; popcorn with no salt or butter added; raw vegetables.

#### **Additional tips**

- Choose whole grain foods for most grain servings for added nutrients, such as minerals and fibre. For example, choose whole wheat bread or whole grain cereals.
- If you have trouble digesting milk and milk products, try taking lactase enzyme pills (available at drugstores and groceries) with the milk products. Or, buy lactose-free milk, which has the lactase enzyme already added to it.
- If you are allergic to nuts, use seeds or legumes (cooked dried beans or peas).
- Use fresh, frozen, or low-sodium canned vegetables and fruits

# **Benefits of potassium**

The DASH eating plan also emphasizes potassium from food, especially fruits and vegetables, to help keep blood pressure at a healthy level. A potassium-rich diet may help to reduce elevated or high blood pressure, but be sure to get your potassium from food sources, not from supplements. Many fruits and vegetables, some milk products, and fish are rich sources of potassium.

Potassium content	of foods
Food group	mg potassium
VEGETABLES	
Potato, 1 medium	926
Sweet Potato, 1 medium	540
Spinach, cooked, ½ cup	290
Zucchini, cooked, ½ cup	280
Tomato, fresh, ½ cup	210
Kale, cooked, ½ cup	150
Romaine lettuce, 1 cup	140
Mushrooms, 1/2 cup	110
Cucumber, ½ cup	80
FRUIT	
Banana, 1 medium	420
Apricots, ¼ cup	380
Orange, 1 medium	237
Cantaloupe chunks, ½ cup	214
Apple, 1 medium	150
NUTS, SEEDS, & LEGUMES	
Cooked soybeans, ½ cup	440
Cooked lentils, ½ cup	370
Cooked kidney beans, ½ cup	360
Cooked split peas, ½ cup	360
Almonds, roasted, 1/3 cup	310
Walnuts, roasted, 1/3 cup	190
Sunflower seeds, roasted, 2 Tbsp	124

Peanuts, roasted, 1/3 cup	120				
LOW-FAT OR FAT FREE MILK & MILK PRODUCTS					
Milk, 1 cup	380				
Yogurt, 1 cup	370				
LEAN MEATS, FISH, & POULTRY					
Fish (cod, halibut, rockfish, trout, tuna), 3 oz	200-400				
Pork tenderloin, 3 oz	370				
Beef tenderloin, chicken, turkey, 3 oz	210				

## Be aware of sodium content

Only a small amount of sodium occurs naturally in foods. Most sodium is added during processing. The table below gives examples of sodium in various foods.

Sodium content of foods	
Food group	mg sodium
WHOLE & OTHER GRAINS & GRAIN PRODUCTS	
Cooked cereal, rice, pasta, unsalted, ½ cup	0-5
Ready-to-eat cereal, 1 cup	0-360
Bread, 1 slice	110-175
VEGETABLES	
Fresh or frozen, cooked without salt, ½ cup	1-70
Canned or frozen with sauce, ½ cup	140-460
Tomato juice, canned, ½ cup	330
FRUIT	
Fresh, frozen, canned, ½ cup	0-5
LOW-FAT OR FAT-FREE MILK & MILK PRODUCTS	
Milk, 1 cup	107
Yogurt, 1 cup	175
Natural cheese, 1 ½ oz	110-450
Processed cheese, 2 oz	600
NUTS, SEEDS, & LEGUMES	
Peanuts, salted, 1/3 cup	120
Peanuts, unsalted, 1/3 cup	0-5
Beans, cooked from dried or frozen, without salt, ½ cup	0-5
Beans, canned, ½ cup	400
LEAN MEATS, FISH, & POULTRY	
Fresh meat, fish, poultry, 3 oz	30-90
Tuna, canned, water pack, no salt added, 3 oz	35-45
Tuna, canned, water pack, 3 oz	230-350
Ham, lean, roasted, 3 oz	1200

## **Read the Nutrition Facts labels**

Read the Nutrition Facts labels on foods to compare the amount of sodium in products. Look for the sodium content in milligrams and the Percent Daily Value. Aim for foods that are less than 5

per cent of the Daily Value of sodium. Foods with 15 per cent or more Daily Value of sodium are considered high. You can also check out the amounts of the other DASH goal nutrients.

Compare the food labels of these two versions of canned tomatoes. The regular canned tomatoes (left) have 15 times as much sodium as the low-sodium canned tomatoes.

### Regular Canned Diced Tomatoes

#### **Low Sodium Diced Tomatoes**

Nutrition Facts Valeur nutritive Serving size ½ cup (130 g) Servings per container 3 1/2		Nutrition Facts Valeur nutritive Serving Size ½ cup (130 g) Servings per container 3 1/2		
Amount per serving Value Teneur quotidienne	%Daily %valeur	Amount Teneur quotidienne	%Daily Value %valeur	
Calories/Calories 25		Calories/Calories 25	2222	
Fat/Lipides o g	0 %	Fat/Lipides og	0 %	
Saturated/saturés o g +Trans/trans o g	о%	Saturated/saturés o g +Trans/trans o g	ο %	
Cholesterol/cholesterol o mg	0 %	Cholesterol/cholesterol om	g 0%	
Sodium/Sodium 150 mg	6 %	Sodium/Sodium 10 mg	1 %	
Potassium 230 mg	6%	Potassium 270 mg	8%	
Carbohydrate/Glucides 5 g	2 %	Carbohydrate/Glucides 5g	2%	
Fibre/Fibres 1 g	4 %	Fibre/Fibres 1 g	4%	
Sugars/Sucres 3 g		Sugars/Sucres 3 g		
Protein 1g		Protein 1 g		
Vitamin A/Vitamine A	5%	Vitamin A/Vitamine A	5 %	
Vitamin C/Vitamine C	20 %	Vitamin C/Vitamine C	30 %	
Calcium/Calcium	4 %	Calcium/Calcium	4 %	
Iron/Fer	6 %	Iron/Fer	4%	

<sup>\*</sup>Percent Daily Values are based on a 2,000 calorie diet.

For more information, including menus and recipe ideas, visit the U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES.:

http://www.nhlbi.nih.gov/health/public/heart/hbp/dash/new\_dash.pdf



http://www.diabetes.ca/diabetes-and-you/healthy-living-resources/diet-nutrition/dash-diet