

Eat Healthy

Chapter 5

Lower Your Blood Pressure with the DASH Diet Pattern

You Will Learn About:

1. The link between diabetes and high blood pressure
 - a. What high blood pressure is
2. The link between sodium and high blood pressure
 - a. How the DASH eating pattern can lower your blood pressure
 - b. What amount of sodium is ok
 - c. The hidden sources of sodium
 - d. How you can eat less sodium
 - e. What else you can do to lower your blood pressure

1. The Link Between Diabetes and High Blood Pressure

Your heart pumps blood around your body through blood vessels. Blood pressure measures the force of your blood against your blood vessel (artery) walls. High blood pressure happens when the force of blood against your blood vessel walls is too strong. High blood pressure is called ‘hypertension’. There are often no signs of high blood pressure but when blood pressure is high, it can damage your heart, eyes, kidneys and brain.

People living with diabetes often have high blood pressure. High blood sugar makes it more likely that you will have high blood pressure. Over time high blood pressure can damage your blood vessel walls and lead to heart disease and stroke.

People living with diabetes are at a very high risk of heart disease and stroke. Coronary artery disease is the most common type of heart disease for people with diabetes.

2. The Link Between Sodium and High Blood Pressure

Salt and sodium are often used as though they are the same thing, but they are different. Sodium is a mineral that is found naturally in foods or added to foods by food makers. Table salt is a mixture of sodium and chloride. By weight, salt is about 40% sodium and 60% chloride.

Your body needs some sodium, but not too much. Sodium in your diet is linked to high blood pressure. If you have high blood pressure you need to manage it. If you do not have high blood pressure you can learn ways to prevent it. You can lower or prevent high blood pressure by the foods you eat each day.

How can the DASH eating pattern lower my blood pressure?

Research shows that a DASH eating pattern can lower your blood pressure. DASH stands for Dietary Approaches to Stop Hypertension. Key features of the DASH eating pattern include:

- Plenty of vegetables and fruit
- Unsalted nuts and seeds
- Whole grains, fish, poultry, and nuts
- More legumes and fish
- Lower fat dairy products
- Lower sodium
- Lower amounts of red meats, sweets, and drinks that contain sugar

The DASH eating pattern is about eating fresh, whole foods and more plants in place of processed and prepared foods. When you eat this way, your diet is lower in sodium, while higher in other nutrients such as fibre, potassium, magnesium and calcium.

The DASH eating pattern helps to lower blood pressure because it contains key nutrients, such as potassium, calcium, and magnesium. These nutrients help to lower blood pressure. The table below is an example of how many servings from each food group you can eat each day to lower your high blood pressure, or prevent it.

Food Group	Daily Servings
Grains and grain products	7-8
Vegetables	4-5
Fruits	4-5
Low fat dairy	2-3
Meats, poultry and fish	2 or less
Fats and oils	2-3
Nuts, seeds, legumes	4-5 per week

Source: National Heart, Lung and Blood Institute; For more information on the DASH diet: <http://www.nhlbi.nih.gov/health/health-topics/topics/dash/>

How much sodium can I eat?

A DASH-Sodium study was done to learn what amount of sodium is ok to eat. People in the study were put into 3 groups. Each group ate a different amount of sodium each day. The 3 levels of sodium were:

1. DASH diet with 3300 mg of sodium each day (about what most North Americans eat each day),
2. DASH Diet with 2300 mg of sodium each day, and
3. DASH Diet with 1500 mg of sodium each day

All people who followed the DASH diet had lower blood pressure at the end of the study. People in the group who only had 1500 mg of sodium each day lowered their blood pressure the most.

1500 mg of sodium is found in about $\frac{2}{3}$ of a teaspoon of table salt.

Are there 'hidden' sources of sodium?

A 'hidden' source of sodium means you cannot see the sodium. Restaurant meals, fast foods and prepared foods from the counter at grocery stores are examples of hidden sources of sodium. This is because you do not know how much salt is in the food. Sodium is often added to these types of food.

If the food comes in a package, you can read the nutrition facts table to know how much sodium is in the food. Read Chapter 6 of this section on 'Learn How to Read Food Labels' to learn more.

Most of the sodium that people eat comes from the salt added to processed, prepared foods and meals prepared at restaurants. Fresh, whole foods that you prepare at home are naturally low in sodium. Choose to eat fresh, whole foods at home more often to eat less sodium.

How can I eat less sodium to prevent or manage high blood pressure?

1. Eat more fresh, whole foods

Include foods that are naturally low in sodium. For example:

- Fruit (fresh or frozen)
- Vegetables (fresh or frozen)
- Whole grains (such as oats, barley, rice, and quinoa)
- Legumes (chickpeas, lentils, beans); look for low sodium or no salt added canned beans

- Fish, poultry and lean meats (fresh or frozen)
- Unsalted nuts and seeds

2. Limit foods with hidden sodium

Eat less processed, prepared, and packaged foods, such as frozen dinners, canned soups, instant side dishes, sauces and pickles. A lot of sodium was added to these foods.

3. Read the Nutrition Facts Table

- Think about the serving size and how much you will eat.
- Choose products with **less than 200 mg of sodium per serving** or **less than 5% Daily Value (% DV)**.

Nutrition Facts	
Valeur nutritive	
Per 4 crackers (20 g) / Portion (20 g)	
Amount	% Daily Value
	% valeur quotidienne
Calories / Calories	90
Fat / Lipides	2 g 3 %
Saturated / saturés	0.3 g
+ Trans / trans	0 g
Cholesterol / Cholestérol	0 mg
Sodium / Sodium	90 mg 4 %
Carbohydrate / Glucides	15 g 5 %
Fibre / Fibres	3 g 12 %
Sugars / Sucres	1 g
Protein / Protéines	2 g
Vitamin A / Vitamine A	0 %
Vitamin C / Vitamine C	0 %
Calcium / Calcium	2 %
Iron / Fer	8 %

What else can I do to lower my blood pressure?

1. Drink less alcohol

Too much alcohol at one time can increase your blood pressure. The amount of alcohol you can drink without raising your blood pressure differs for men and women.

Men: limit alcohol to 2 drinks each day at most

Women: limit alcohol to 1 drink each day at most

If you are going to include alcohol, it is best to have it with a meal to prevent low blood sugar.

2. Exercise

Exercise and be active daily to help manage your blood pressure and blood sugar.

Summary

- Overtime, high blood pressure (hypertension) may cause damage to your heart (heart attack), brain (stroke), eyes (loss of vision) and kidneys (kidney failure)
- Learn to read a food label to see how much sodium is in the food you buy
- Limit the amount of alcohol you drink and follow the DASH eating pattern to lower your blood pressure
 - Plenty of vegetables and fruit
 - Unsalted nuts and seeds
 - Whole grains, fish, poultry, and nuts
 - More legumes and fish
 - Lower fat dairy products
 - Lower sodium
 - Lower amounts of red meats, sweets, and drinks that contain sugar