



## The Pressure's On: Controlling Hypertension

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Approximately 50 million Americans have hypertension. That is one out of every four adults. If you are African American, make that one out of three. High blood pressure tends to run in families. It strikes more often in people over 35 years old, and by age 65, more than half of us will have high blood pressure. Women are especially susceptible after menopause. Birth control pills may cause hypertension in some women. Although more common in adults, hypertension can still affect young adults and even children. *People with type 2 diabetes are twice as likely to have hypertension.*

### **What Are the Risk Factors?**

The confirmed risk factors for hypertension include:

- \*Being overweight
- \*Not exercising enough
- \*Drinking too much alcohol
- \*Eating too much salt

### **Other Risk Factors for Developing Hypertension: Fact or Fiction?**

#### Stress

Blood pressure can go up temporarily during a stressful event. Emotional stress does not cause persistently high blood pressure. Nevertheless, stress-reduction techniques can't hurt.

#### Caffeine

If you drink enough caffeine, the blood pressure may go up temporarily. Most coffee drinkers get accustomed to their caffeine intake, and the blood pressure loses interest in responding.

#### Smoking

Blood pressure goes up every time you light up. Additionally, smoking is a risk factor in developing heart disease and other diseases.

### **Blood Pressure Target**

Individuals with diabetes should achieve a target blood pressure of **130/80**.

### **Treating High Blood Pressure**

Healthful living can mean better blood pressure. The lifestyle strategies to prevent and treat hypertension are straightforward: Maintain a reasonable weight, include regular exercise, limit alcohol, and eat right.

#### Achieve and Maintain a Reasonable Weight

Being overweight increases the likelihood of having hypertension by as much as six-fold. Carrying the extra weight around the abdomen (apple-shaped) holds more risks than carrying the weight around the hips (pear-shaped). Even losing a modest amount of weight can improve blood pressure values.

### Keep Active

Exercise reduces blood pressure, reduces the risk of heart disease, improves blood sugar control, and is important in achieving and maintaining a reasonable weight.

The general recommendation is to strive for 30 minutes of exercise per day. That can be all at once, or divided into two to three sessions throughout the day. Examples include brisk walking, dancing, bicycling, swimming, aerobics classes or videos.

*Caution:* Individuals with diabetes should be evaluated and have a physical exam prior to embarking on an exercise regimen. Those with retinopathy should avoid valsalva type exercises such as *heavy* weightlifting. Intense straining can cause an acute rise in blood pressure that can damage the small blood vessels in the eyes.

An exercise stress test may be warranted for individuals over 35 years old; anyone who has had diabetes for 10 years; anyone with pre-existing diabetes complications; or anyone with risk factors for heart disease.

### Limit Alcohol

Excessive amounts of alcohol pose many health risks. Too much alcohol can increase the risk for stroke, hypertension, heart disease, liver disease, diseases of the pancreas, accidents, and the list goes on. Too much alcohol can also increase blood pressure.

If moderate alcohol intake is not otherwise contraindicated, women should limit intake to one drink per day, and men should limit to no more than two drinks per day. Certain health problems and medications require complete abstinence.

One drink is considered 12 ounces of beer, 5 ounces of wine, or 1 1/2 ounces of 80 proof hard liquor.

### Limit Sodium

Excessive intake of sodium is linked to hypertension. Sodium occurs naturally in many foods, but most of our sodium intake comes from added salt.

The average American eats up to 6,000 milligrams of sodium per day. It's estimated that about 75 percent of that sodium comes from packaged and processed foods. In addition to flavoring foods, salt is a preservative and is added to processed foods to improve shelf life.

Convenience foods, as the name implies, are convenient, but they also tend to be high in sodium. If making dinner involves adding hot water, stirring, and waiting 5 minutes, then you'd better take a second look at that food label. Chances are you're in for a high-sodium meal. The same holds true if you pick up your meal at a drive-through window. Quick meals don't have to be high in sodium, but to limit sodium you do have to rethink your choices.

As a part of a healthful diet, the recommended limit for sodium intake is 2,400 milligrams per day. Individuals vary in their sensitivity to salt. Lowering dietary sodium intake will benefit some people's blood pressure more than others.

Compared to the general population, people with diabetes do tend to have a better response to a low-sodium diet.

When buying packaged foods, read the labels for the sodium content.

- \*Sodium-free is < 5 mg per serving.
- \*Very low sodium is < 35 mg per serving.
- \*Low sodium is < 140 mg per serving.

By the way, one teaspoon of salt has more than 2,300 mg of sodium! So, try not to add salt. Use other seasonings to bring out the flavor in foods.

### **Other Dietary Tips to Improve Blood Pressure**

#### High-Potassium Diet

A diet high in potassium may help reduce the risk of hypertension. As of October 2000 the FDA allows food labels to claim that foods high in potassium and low in sodium may reduce the risk of hypertension and stroke. The label claim can only be used on foods that have at least 350 mg of potassium and no more than 140 mg of sodium.

##### *High potassium foods:*

Apricots, avocados, bananas, cantaloupe, kiwi, mangos, oranges, strawberries, artichokes, tomatoes, potatoes, sweet potatoes, spinach, legumes (peas, lentils, and beans), parsnips, winter squashes, milk, yogurt, meat, poultry, and fish.

*Caution:* Patients with renal disease, hyperkalemia, or on potassium sparing diuretics, usually need to restrict potassium and should not try to follow a high potassium diet. Additionally, salt substitutes are often made from potassium chloride. Individuals who need to limit potassium intake shouldn't use potassium chloride salt substitutes.

#### Adequate Calcium Intake

Studies have shown that diets low in calcium are often associated with an increased incidence of hypertension. Other studies fail to show a clear-cut relationship between calcium and blood pressure. At this point, it seems safe to say that including calcium-rich foods is prudent, but calcium supplementation is not a proven therapy for lowering blood pressure.

##### *High calcium foods*

Milk, yogurt, and cheese are the richest sources of calcium. You can also buy calcium-fortified tofu and soymilk. Legumes (dried beans, split peas, and lentils), broccoli, and cooked greens such as kale, spinach, and mustard greens offer some calcium.

#### Adequate Magnesium Intake

Inadequate magnesium intake may contribute to hypertension though studies are not conclusive enough to suggest magnesium supplementation. Including dietary sources of magnesium-rich foods may be beneficial.

##### *High magnesium foods:*

Leafy green vegetables, avocado, okra, legumes (dried beans, split peas, and lentils), whole grains, figs, raisins, banana, and nuts and seeds.

### Omega-3 fatty acids

Omega-3 fatty acids may help to reduce high blood pressure. Include fresh fish regularly to cash in on this benefit.

### *Omega-3 fatty acid sources*

Fish that come from cold, deep water are an excellent source of omega-3 fatty acid. Salmon, tuna, herring, sardines, and mackerel are among the richest sources. Vegetarian sources include flaxseed, walnuts, soybeans, canola oil, and evening primrose oil.

### **Medications**

When lifestyle modifications fail to control blood pressure, then medications should be instituted.



SHERRI SHAFER received her BS in Nutrition and Dietetics from the University of California at Berkeley. She has been a Dietitian at UCSF Medical Center for 10 years. Sherrri specializes in medical nutrition therapy counseling for individuals in adult and pediatric diabetes clinics, and is an Instructor for classes on diabetes self management for Type 1 and Type 2 diabetes. She has just completed her first book, Diabetes Type 2 Complete Food Management Program from Prima Publishing.