

# Hypertension

Blood Pressure Canada  
Heart and Stroke Foundation of Canada  
Canadian Hypertension Education Program (CHEP)  
Canadian Hypertension Society

## 2007 PUBLIC RECOMMENDATIONS

### Things you need to know about blood pressure and hypertension

High blood pressure (hypertension) is one of the leading causes of death in Canada. High blood pressure can cause strokes, heart attacks, and heart and kidney failure and is related to dementia and sexual problems. These problems can be prevented if high blood pressure is well treated and controlled. Blood pressure allows blood to flow and deliver oxygen and food to the body. We measure blood pressure with two numbers (e.g. 124/84

mmHg). The first number is called the **systolic** pressure and the second is called the **diastolic** pressure.

Things that can help you to talk to health professionals about your blood pressure

**Systolic** pressure is your highest blood pressure measurement.

It occurs when your heart contracts. **Diastolic** pressure is your lowest measurement, and it occurs when your heart relaxes and fills with blood. The higher your **systolic** or **diastolic** pressure, and the longer it stays high, the more damage to your blood vessels. Strokes and heart attacks are caused by damaged blood vessels.



2007 marks the eighth consecutive year that the Canadian Hypertension Education Program (CHEP) has updated recommendations for the management of hypertension for health professionals and the second year that this public version of the recommendations was produced.

## Have your blood pressure measured regularly

Have your blood pressure measured regularly and know what your blood pressure is. Remember that both numbers are important.

Regular blood pressure monitoring is especially important if your blood pressure is **high normal** (130 to 139/85 to 89 mmHg when measured in a doctor's office). More than one half of people with high normal blood pressure develop hypertension within four years unless they make lifestyle changes.

## Do's & Don'ts

There are several things that you can do to stop hypertension and to keep your blood pressure lower. Blood pressure increases with age and more than nine in ten Canadians will develop hypertension unless they follow a healthy lifestyle.



**GO** Be physically active for 30 to 60 minutes on most days of the week. Try walking, biking, swimming, cross-country skiing or any other physical activity that you enjoy. Remember that even a little bit of physical activity is better than no activity at all.

**GO** Choose the following more often: vegetables, fruit, low-fat dairy products, foods low in saturated and trans fat and salt, whole grains and lean meat, fish and poultry. Limit fast foods, canned foods or foods that are bought prepared.

**GO** If you are overweight, losing about 10 lbs (5 kg) will lower your blood pressure, and reducing your weight to within a healthy range will lower your blood pressure even more.

**STOP** Eat less salt. In general, the more processed a food is, the higher the salt content. Try not to add salt to your cooking and remove the salt shaker from the table.



**STOP** If you drink alcohol, limit the amount to 1 to 2 drinks a day or less. A regular-sized bottle or can of beer, 1.5 ounces of hard liquor, or a regular-sized glass of wine are all equal to single alcoholic drink.

**STOP** It is important to stop smoking if you have high blood pressure. Smoking increases the risk of developing heart problems and others diseases. Living and working places that are smoke-free are also important.

## What should your blood pressure be?

Most people	Less than 140/90 mmHg
People with diabetes or kidney disease	Less than 130/80 mmHg

## Did you know?

### Eating less salt can reduce your blood pressure

Ways to reduce salt in your diet

- Read labels carefully. Similar foods may have high or low sodium additives. Choose foods that have less sodium. Look for foods that provide 10% or less of your daily value for sodium.
- Add very little or no salt to food that you prepare.
- Restaurant and fast foods are usually high in salt. Ask if nutrition information is available.
- The following foods may be high in sodium. Read the nutrition facts table before selecting these foods:
  - ketchup, prepared mustard, soy sauce, steak or barbecue sauce
  - pickles and olives
  - bouillon cubes
  - commercially prepared or cured meats or fish (such as luncheon meats or canned sardines)
  - canned or bottled foods and other packaged convenience foods
  - salted nuts and peanut butter
  - salted crackers, chips, popcorn, and pretzels.

## Finding (diagnosing of) hypertension

One high blood pressure reading is not enough for a diagnosis of hypertension. Most people will have higher readings when under physical or emotional stress. Blood pressure should be measured when you are relaxed and rested. There are several ways to find out that you have hypertension:

### 1. Your doctor

A doctor will diagnose hypertension:

- right away if your blood pressure is extremely high (higher than 200/120 mmHg)
- if your blood pressure is higher than 180/110 mmHg after just two visits over a short period of time
- if your blood pressure is higher than 160/100 mmHg over 3 visits
- if your blood pressure is higher than 140/90 mmHg, 5 visits are needed
- if you have diabetes or kidney disease and blood pressure higher than 130/80 mmHg at two consecutive visits.

### 2. Measuring your blood pressure at home

You can assist your doctor in making a diagnosis of hypertension by measuring your blood pressure at home. If readings are high over two visits at the doctor's office, and if your blood pressure is higher than 135/85 mmHg when measured

at home, diagnosis of hypertension can be made. This requires you to measure and record your blood pressure twice a day, in the morning and evening, for one week. Pay no attention to the measurements from the first day. Measuring blood pressure at home requires accurate equipment and proper measuring techniques.



### Buying a blood pressure instrument

Blood pressure instruments can be purchased in most pharmacies. Buy a blood pressure instrument that has been approved by the Canadian Hypertension Society (CHS), the Association for the Advancement in Medical Instrumentation (AAMI), the British Hypertension Society (BHS), or the International Protocol (IP).

## So you have high blood pressure...

If you have high blood pressure, get checked for diabetes and high cholesterol. Most people who have high blood pressure also have the other risks for heart disease and stroke. Ask your doctor to test

your kidney function through a blood and urine test, and through the electrolytes (salts) in your blood. Kidney problems can cause high blood pressure.

### "White coat" hypertension

Some people experience elevated blood pressure when they visit the doctor's office, but have normal blood pressure otherwise, a condition called "white coat" hypertension. If your doctor suspects this, you may be asked to monitor your blood pressure at home or wear an ambulatory blood pressure monitor. Most people with "white coat" hypertension are not at higher risk of health problems, but do require regular monitoring as many will develop hypertension over time.

### "Masked" hypertension

"Masked" hypertension is a term used to describe how some people have normal blood pressure when they visit the doctor's office, but have high blood pressure when outside the office. If your doctor suspects this, you may be asked to monitor your blood pressure at home or wear an ambulatory blood pressure monitor. People with "masked" hypertension are at higher risk for heart disease and stroke and may require medications to keep blood pressure under control.

### Taking your medications

Most people with high blood pressure need two or more

medications, together with lifestyle changes, to lower their blood pressure. In many cases, two medications can be taken as a single tablet. There are many drugs that last over the full day and need to be taken only once a day. Many drugs take up to six weeks before showing full effects.

Every drug can have side effects and you need to keep an



eye on these and report them to your doctor.

It is very important that you take drugs regularly and as instructed. Medicines will not work if you do not take them regularly! If you place your medication next to an item used at the same time every day, for example the cup or bowl you plan to use for breakfast, you are more likely to remember to take your medication. If you forget to take your medication occasionally, it may help to keep a second bottle in your car or at work. For those who are already taking many drugs, a plastic medication dosette is inexpensive and sold in pharmacies.

If you are having trouble taking your medication, or if you are forgetting to take it

altogether, tell your physician or pharmacist. If you do not inform your doctor, he/she will think the drug is not working and may increase the dose or add more medications.

### Medications

Many drugs that lower blood pressure also prevent heart attacks and strokes. The drugs known to prevent heart attacks and strokes include diuretics (water pills), beta blockers in those younger than sixty, angiotensin converting enzyme inhibitors (ACE inhibitors), angiotensin receptor blockers (ARBs) and calcium channel blockers. All reduce blood pressure by the same amount on average, but some people have better results with one drug than another.

The drugs have different cost and different possible side effects. If you have diabetes or kidney disease, an ACE inhibitor or ARB is usually recommended first. Often diabetes or kidney disease patients also take diuretics. If you have heart disease a beta blocker and ACE inhibitor are commonly used. It is best to ask your doctor or pharmacist what type of medication you are on if you are unsure.

### If you need two medications or more

Many types of blood pressure drugs work best when taken

together. Most people with high blood pressure need two or more



medications, together with lifestyle changes, to lower their blood pressure. Keep in mind that many drugs take up to six weeks before showing full effects. Your doctor may change your medication to find the combination that is best for you.

For more information about blood pressure go to these websites

[www.hypertension.ca](http://www.hypertension.ca)

[www.heartandstroke.ca](http://www.heartandstroke.ca)



Blood Pressure Canada



Canadian Hypertension Education Program



Canadian Hypertension Society

