

Hypertension

Blood Pressure Canada
Heart and Stroke Foundation of Canada
Canadian Hypertension Education Program (CHEP)
Canadian Hypertension Society
Société Québécoise d'hypertension artérielle

2008 PUBLIC RECOMMENDATIONS

What is high blood pressure?

Your heart pumps blood around your body. Blood pressure is the force of blood pushing against the walls of your arteries. This force is necessary to make blood flow, delivering oxygen and nutrients throughout your body. However, high blood pressure, also called hypertension, means there is too much pressure in your arteries. This can damage them and cause health problems. Hypertension is defined as blood pressure that is usually above

the normal range. Anyone can develop high blood pressure, but it

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

becomes more common as you get older. Once high blood pressure

develops, it usually lasts for life unless lifestyle changes are made. High blood pressure is one of the leading health problems in Canada. It can cause strokes, heart attacks, and heart and kidney failure. It is also related to dementia and sexual problems. Finding high blood pressure early, treating and keeping it in the normal range can reduce the risk of developing these problems.



2008 marks the ninth consecutive year that the Canadian Hypertension Education Program (CHEP) has updated recommendations for the management of hypertension for health professionals and the third year that this public version of the recommendations was produced.

How is it measured?

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.

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.

Should you monitor your blood pressure?

Whether or not you have high blood pressure, it is important to have your blood pressure checked regularly. Nine out of 10 Canadians will develop hypertension during their lifetime. High blood pressure has no warning signs or symptoms – which is why it is often called a ‘silent killer.’

Have your blood pressure checked at least once every two years by a health care provider. Do it more often if your blood pressure is high. You can also monitor your blood pressure more often at home. If home blood pressure readings are done properly they may reflect your true pressure more than those done in the doctor’s office. Regular monitoring helps ensure that high blood pressure is diagnosed and controlled before

it leads to serious health problems.

Know what your blood pressure is and remember that both numbers are important. If either the systolic or diastolic number is consistently high, you need to make changes in your lifestyle. You may need further monitoring and treatment. (Blood pressure of more than 135/85 mmHg measured at home or 140/90 mmHg measured in a doctor’s office is considered high.)



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.

What should your blood pressure be?

Most people	Less than 140/90 mmHg (Less than 135/85 mmHg at home)
People with diabetes or kidney disease	Less than 130/80 mmHg

Did you know?

It is estimated that up to 3 in 10 Canadians have hypertension because they eat too much salt. Sodium is a part of salt.

- Read labels carefully. Similar foods may have high or low sodium additives. Choose foods that have less salt. 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 for low salt choices or for less salt to be added to your food.
- 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.

Nutrition Facts	
Per 1 burger (130 g)	
Amount	% Daily Value
Calories 200	
Fat 9 g	14 %
Saturated Fat 2 g + Trans Fat 1 g	15 %
Cholesterol 20 mg	
Sodium 800 mg	33 %
Carbohydrate 4 g	1 %
Fibre 0 g	0 %
Sugars 0 g	
Protein 25 g	
Vitamin A 0 %	Vitamin C 0 %
Calcium 4 %	Iron 2 %

'White coat' hypertension

Some people have higher blood pressure when they visit the doctor's office because they feel anxious in this setting. However, as they go about their usual daily activities they have normal blood pressure. This condition is called 'white coat' hypertension (referring to the white coat worn by the health care provider).

People with white coat hypertension may still have some increased risk of health problems. However, the risk is lower than in those with raised blood pressure at the doctor's office and at home. Regular monitoring is still required, as many people with white coat hypertension will develop high blood pressure over time.

'Masked' hypertension

'Masked' hypertension is a term used to describe how some people have normal blood pressure when measured in the doctor's office, but have high blood pressure in other situations.

If your doctor suspects masked hypertension, you may be asked to monitor your blood pressure at home. It is important to 'unmask' high blood pressure, since those with masked hypertension are at higher risk for heart disease and stroke.

Measuring and tracking your blood pressure

Measuring and tracking your blood pressure regularly, and keeping a record, can be very useful. This information helps your doctor know whether you are at risk of developing high blood pressure, and how well your blood pressure is controlled. If you have been diagnosed with high blood pressure, keeping track helps you see the benefits of treatments and lifestyle changes. It also reminds you to stick to your treatment plan.

Home monitoring can help you:

- ▶ assist your doctor in making a diagnosis of hypertension
- ▶ distinguish true hypertension from white coat hypertension
- ▶ detect masked hypertension
- ▶ assess your response to hypertension medication
- ▶ help you to remember medication and to stick to lifestyle changes.



Advice for home blood pressure monitoring

- ▶ **DO** rest for five minutes before taking a measurement.
- ▶ **DO** sit with your feet flat on the floor, back and arm supported, and arm at heart level.
- ▶ **DO** completely remove clothing from your upper arm.
- ▶ **DO NOT** smoke or drink caffeine for 30 minutes beforehand.
- ▶ **DO NOT** wear tight clothing.
- ▶ **DO NOT** talk or watch TV during the test.
- ▶ **DO NOT** measure your blood pressure when you are upset or in pain.

Buying a blood pressure monitor

Blood pressure monitors can be purchased in most pharmacies. Be sure to buy a blood pressure monitor that has this label



A list of approved monitors is available under the monitor endorsements section at:

<http://hypertension.ca/chs>

It is very important to buy a monitor with the right size of cuff for your arm. Talk to the pharmacist to determine the right cuff size. Ask your doctor, nurse or pharmacist to check your monitor after buying it and each year thereafter, to be sure it is measuring your blood pressure accurately.



Try to do more

There are several things that you can do to prevent 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, whole grains and lean meat, fish and poultry. Limit fast foods, canned foods or foods that are bought prepared or those that are high in salt, sugar, saturated or trans fat.



Try to do less

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

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 costs 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.

Most people 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:
www.hypertension.ca
www.heartandstroke.ca/bp



An internet-based toolbox to assist self management for home blood pressure measurement and lifestyle change can be found at www.heartandstroke.ca/bp



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