

Understanding and Managing High Blood Pressure



Blood pressure is one of the main vital signs that healthcare practitioners use to assess overall health. It is used to identify the pressure within your blood vessels caused by the force of blood against the vessel walls.

High blood pressure means there is too much pressure in your blood vessels which, over time, can damage them or your organs. Low blood pressure is a concern when you're feeling dizzy or faint, in which case you should speak to your health care professional.

How is Blood Pressure Measured?

Blood pressure is measured on the upper arm using a device with an inflatable cuff. Blood pressure readings have two numbers, one on top of the other (ex: 120/80 mmHg). The abbreviation "mmHg" represents millimeters of mercury, a standard measurement of pressure. The top number is your *systolic blood pressure* and is the highest level of pressure reached in the blood vessels as your heart beats. The bottom number is your *diastolic blood pressure* and is the lowest level of pressure in the blood vessels as your heart relaxes between beats.

What Causes High Blood Pressure?

Some risk factors for high blood pressure, like family history, age, and gender, can't be changed. Other factors are controllable, like smoking status, alcohol intake, exercise, and diet. Adopting healthy habits can reduce the level of blood pressure and the risk of developing hypertension.

What is Hypertension?

Often, the terms *hypertension* and *high blood pressure* are used interchangeably. Medically, however, hypertension is a specific diagnosis given to patients for whom blood pressure measures consistently higher than normal. Hypertension affects 7.5 million Canadians and is among the leading causes of death and disability worldwide. Notably, it is often called "the silent killer" as it can have no warning signs or symptoms and is only diagnosed through blood pressure measurement. It can affect anyone and is more common as we age; once hypertension develops, it usually lasts for life.

If it remains uncontrolled, hypertension increases the risk of:

- Stroke
- Kidney Disease
- Heart attack
- Eye problems (ex: retinopathy)
- Heart failure
- Erectile Dysfunction
- Dementia
- Diabetes

The good news is that hypertension can be prevented and controlled with healthy lifestyle strategies; medication can be added to the regimen for additional control if needed. The first step in managing hypertension is to know and understand your blood pressure.

What Do My Numbers Mean?

If your blood pressure is high, your health care professional will evaluate your readings based on the average of two or more blood pressure readings, at two or more visits. The evaluation should also include at least one reading taken outside of a doctor's office such as with a home monitor, at a pharmacy kiosk, or by wearing an *Ambulatory Blood Pressure Monitor*, a device that records your blood pressure as you go about your day.

What Should My Blood Pressure Be?

Target blood pressure readings differ for each person as they are heavily dependant on individual factors such as age and medical history. For the average person to maintain good health and reduce their risk of stroke, heart disease, and other conditions, blood pressure should remain around or less than 120/80 mmHg.

If you have diabetes, kidney disease or other health conditions, speak to your health care professional about your readings and the treatment that is right for you. Remember, only your health care professional can tell you what your target blood pressure should be.

According to my health care professional, my target blood pressure is: _____ / _____
mmHg

When is High Blood Pressure an emergency?

High blood pressure readings, for people who are otherwise healthy, are rarely an emergency unless accompanied by signs of stroke or heart attack. If your blood pressure is reading higher than normal, and there are no other symptoms, you should call your health care professional at your earliest opportunity and make an appointment. If, however, you also have signs of a stroke or heart attack, have someone drive you to the emergency department or call 911 if you're alone. With some health conditions, higher blood pressure may require emergency attention. Check with your health care professional to understand what constitutes an emergency for you.

Signs of a Stroke

- **Face** – is it drooping?
- **Arms** – can you raise both?
- **Speech** – is it slurred or jumbled?
- **Time** – to call 911 right away

Signs of a heart attack

- Chest discomfort (pressure, squeezing, heaviness)
- Discomfort in other areas of the upper body
- Shortness of breath
- Sweating
- Nausea
- Light headedness

How Often Should I measure my Blood Pressure?

For most people with normal blood pressure and without other health conditions, a blood pressure measurement done properly once a year is often enough. If your blood pressure is high, your health care professional will advise you to book an appointment, or advise you to monitor your blood pressure at home, to accurately evaluate your blood pressure.

When and Why is Home Monitoring Important?

Your health care professional may want you to monitor your blood pressure at home – to accurately confirm your average blood pressure, or to monitor how well your blood pressure is controlled in your own environment. If you have been diagnosed with hypertension, monitoring over time and keeping detailed records helps you and your health care professional to see how your blood pressure is responding to lifestyle changes or medications. Ask your health care professional for information on how to use a blood pressure log and bring it with you to your appointments. Regular monitoring can help ensure that high blood pressure is diagnosed and controlled before it leads to other health problems.



What is White Coat Syndrome/White Coat Hypertension? Masked Hypertension?

Some people have higher blood pressure at the doctor's office, yet normal blood pressure otherwise, so they do not have hypertension at all. It is called *white coat hypertension* or syndrome, referring to the white lab coats worn by some health care professionals, and can be ruled out with home blood pressure monitoring. *Masked hypertension* is when people have normal blood pressure at the doctor's office, yet higher blood pressure everywhere else. The use of a blood pressure log, with readings taken at home, can uncover masked hypertension.

Managing your Blood Pressure: What can you do?

- Eat a healthy diet rich in fruits and vegetables, low-fat milk products, whole grain products and meat alternatives such as beans, legumes, nuts and seeds.

- Choose foods low in saturated fats from meat and milk products, and rich in unsaturated fats like canola or olive oil.
- Limit your salt intake. Adults should consume less than 2000 mg of sodium daily. Choose unprocessed foods and those with a Nutrition Facts Label showing less than 5% Daily Value for sodium per serving. (Adopt the DASH diet)
- Be physically active. Aim for 30-60 minutes of physical activity most days. Try walking, biking, swimming, or any other activity that you enjoy.
- Aim for a healthy body weight.
- Manage your stress levels and improve your coping skills.
- Limit alcohol consumption to 1-2 standard drinks a day or less.
- Avoid use of and exposure to tobacco products.
- Do not stop taking your medication without first speaking to your health care professional — unless you are having an allergic reaction.
- Know what your target blood pressure should be.
- Monitor your blood pressure at home, using proper technique, to see your progress.
- Make sure you have the right size blood pressure cuff.
- Have your home blood pressure monitor checked yearly for accuracy.
- Keep a blood pressure log and show it to your health care professional at every appointment.
- Use a blood pressure measurement device that is recommended by Hypertension Canada. Visit www.hypertension.ca.

Medications for Managing High Blood Pressure

Once diagnosed with hypertension, medication is often needed to bring blood pressure within a normal range. Don't see that as a failure – it's not. Learn about the medication you're prescribed, and take it as directed to reduce your risk of health complications like stroke and heart disease.

Most people with high blood pressure need two or more medications, combined with lifestyle changes, to successfully lower their blood pressure. Many types of blood pressure drugs work best when taken together and some are combined in a single tablet at no extra cost. Keep in mind that many drugs can take up to four weeks before showing full effects. Be patient. Your health care professional may change your medication to find a combination that is best for you. Keeping a blood pressure log helps in those decisions. All drugs can have side effects – keep an eye on these and report them to your doctor.

My Blood Pressure Is Under Control. Can I Stop Taking My Medications Now?

No, stopping treatment when blood pressure returns to normal can cause your blood pressure to rise again to dangerous levels. While the medication has controlled your blood pressure, your hypertension has not been cured. Once you have hypertension, you will likely have it for the rest of your life.

What Type of Blood Pressure Monitor Should I Buy?

When monitoring your blood pressure, it's important to use a monitor that is validated, or proven, to be accurate so that you and your health care professional can see the impact of lifestyle changes or medications

on your blood pressure. With so many devices to choose from, making a purchase can seem daunting. Hypertension Canada provides a list of recommended blood pressure monitors, those that are proven through research studies to be accurate against international standards, to help you in your purchasing decisions. It is also important to purchase a monitor with a cuff size of the right fit. As most blood pressure monitors are available in your community pharmacy, a pharmacist can measure your arm and help you select the model with a cuff size that is right for you.

Visit <https://hypertension.ca/bpdevices> for Hypertension Canada's list of recommended blood pressure devices.

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