



Managing your blood pressure

Take action and reduce your risk



High blood pressure:

- The #1 risk factor for **stroke**
- A major risk factor for **heart disease**

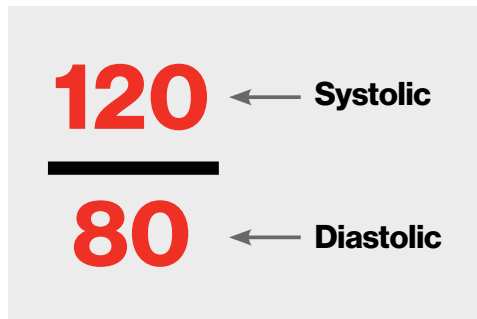
What is blood pressure?

Your heart pumps blood around your body through your arteries. Blood carries oxygen and nutrients to your organs and tissues. A certain amount of force is needed to get blood to all parts of your body. **Blood pressure is the force of blood pushing against the inside of arteries.**

What do the blood pressure numbers mean?

Blood pressure readings have two numbers. It is written as a fraction (for example 120/80) but when speaking you would say 120 over 80.

- The top number is called **systolic** pressure (sounds like *siss-tall-ick*). This is the amount of pressure against the walls of your arteries when your heart pumps blood out to your body with each heartbeat.
- The bottom number is called **diastolic** pressure (sounds like *dye-es-tall-ick*). This is the amount of pressure in your arteries when your heart relaxes and refills with blood between heartbeats.



How is blood pressure measured?

Your healthcare provider will usually measure your blood pressure using an automatic machine. Manual readings, which use a stethoscope, are used less and less frequently. This is because automatic machines are more accurate.

Healthcare provider

Refers to a doctor, nurse practitioner or other qualified health professional.

The measurement involves placing a “blood pressure cuff” on your arm. It wraps snugly around your arm and is inflated with air. Pressure readings are taken as the air is slowly released.



- You can also have additional readings done by a public blood pressure monitor (example: in a pharmacy) or a portable blood pressure monitor at home.
- In some cases your healthcare provider may ask you to wear a monitoring device for 24 hours.
- Together, these readings will help your healthcare provider determine if you have high blood pressure.



What is high blood pressure?

Everyone experiences increases in their blood pressure at times but usually only for short periods, such as during physical activity or in stressful situations.

High blood pressure becomes a problem when blood pressure stays higher than normal over a period of time. We call this hypertension ('hyper' meaning 'too much', and 'tension' refers to the pressure in the arteries).

A single high blood pressure reading does not mean you have high blood pressure. Your doctor confirms a diagnosis of high blood pressure when either the top number (systolic) or the bottom number (diastolic) stays high over a period of time.

Anyone can get high blood pressure. So, it is important to have your blood pressure checked regularly. When you catch high blood pressure early, you have a better chance of getting it under control.

If you are diagnosed with high blood pressure, your doctor will talk to you about a target blood pressure and the best way to manage it based on your medical history and your risk factors.

Risk level	Blood pressure reading	
Low risk	Less than $\frac{120}{80}$	
Medium risk*	$\frac{121 \text{ to } 134}{80 \text{ to } 84}$	You might hear it called: <ul style="list-style-type: none">• 'high-normal' blood pressure• 'elevated' blood pressure• 'pre-hypertension'
High risk*	More than $\frac{135+}{85+}$	For people with diabetes, 130/80 is considered high

These blood pressure targets are for adults under the age of 80. Talk to your doctor about the right targets for your children, teenagers or seniors over 80 years old.

*Medium risk is also called moderate risk. High risk is also called elevated risk.

Blood pressure numbers are measured in mmHg.

Why should I worry about high blood pressure?

High blood pressure puts too much pressure on the walls of your arteries. This can damage your arteries, as well as cause other health problems. Artery damage reduces blood flow throughout the whole body.

We know high blood pressure can lead to stroke, heart failure, heart attack, kidney disease, and even kidney failure. It has also been linked to dementia.

Whether or not arteries are damaged and how much they are damaged depends on:

- How high the top or bottom number is **and**
- How long the blood pressure remains high

Once you have been told you have high blood pressure, you may have it for the rest of your life. However, there are actions you can take to lower your numbers and limit the damage. If needed, there are several types of medicines that can help to treat high blood pressure.

How can I tell if I have high blood pressure?

You can't feel it. There are no warning signs. Because of this, it is often called a 'silent killer'.

The only way to know if you have high blood pressure is to check your blood pressure. While you can check your blood pressure at home or at a pharmacy, it is important to also have it checked regularly by a healthcare provider.

If you are Medium Risk or High Risk, have your blood pressure checked by a healthcare provider at least once every year.

Did you **know**?

Many people have a higher than normal blood pressure just by being in the doctor's office. This is called "white coat effect". That is why it is good to check your pressure at home.

You can't feel it.
There are no warning signs.

What can I do to control my blood pressure?

There are certain factors that can increase the chances of a person getting high blood pressure.

There are factors you can't change such as your age and family history of high blood pressure.

There are other factors that you can do something about such as your weight, eating habits, activity level and lifestyle.

Healthy lifestyle habits can reduce your chance of getting high blood pressure. If you already have high blood pressure, these same habits will help control your high blood pressure and reduce your risk of future health problems.

Take action **today** to control your blood pressure.

Blood pressure tends to increase with age



Take action

Monitor your blood pressure.

- Check your blood pressure regularly (see 'Checking your blood pressure', page 14).
- Have your blood pressure checked at least once every year by a healthcare provider. Have it checked more often if your blood pressure is high.

Take medication as directed.

- If your doctor has prescribed medication for high blood pressure, take it as directed.
- Continue to take your blood pressure medication even when your blood pressure has returned to normal.
- Do not stop taking medications without first talking with your doctor, unless you have a serious reaction. (For more on medications, see page 12).

Eat less salt.

- Eat less than 2,300mg of sodium (about 1 teaspoon / 5mL of salt) each day. See 'Shake the salt habit' (page 9).

Eat foods high in potassium.

- Eat more potassium-rich foods such as fresh fruits, vegetables, low-fat dairy foods and beans, unless you have been told you have an abnormally high potassium level.

Follow a healthy, balanced diet with lots of vegetables and fruit.



- Fill half your plate with vegetables and fruit at every meal.
- Make meals at home without prepared or pre-made foods. Cooking at home allows you to select whole foods and fewer processed foods. It also allows you to limit the amount of added salt.
- Drink fluids throughout the day. Water is best. Sugar-free drinks such as coffee and tea are okay too.
- Take time to learn more about a lifelong approach to healthy eating using the DASH eating plan.

It is based on prescribed daily servings of different food groups:

- Vegetables – 4-5 servings
- Fruit – 4-5 servings
- Grains (mainly whole grains) – 7-8 servings
- Low-fat or no-fat dairy foods – 2-3 servings
- Lean meats, poultry and fish – 2 servings or less
- Nuts, seeds and dry beans – 4-5 servings per week
- Fats and oils – 2-3 servings

Aim for a healthy weight.

If you are overweight, losing even 5% to 10% of your weight can help to reduce your blood pressure as well as dramatically decrease your chances of having a stroke or heart attack.

- Choose healthy foods and be more active — it is the best way to lose weight and maintain it.
- Start with small changes that you can keep for life. That's better than making lots of changes at once, and not being able to stick to any of them.
- Get support from a friend, family member, dietitian or support group.





Shake the **salt habit**

About 80% of the salt we eat comes from ready-made, processed foods. This includes fast foods, prepared meals, processed meats (such as hot dogs and lunch meats), canned soups, bottled dressings, packaged sauces, condiments (such as ketchup and pickles) and salty snacks (such as potato chips).

Tips for eating less salt

- Eat fresh foods most of the time.
- Eat more fresh or frozen vegetables and fruit.
- Put the salt shaker away. Reduce the amount of salt you add to cooking, baking and food at the table.
- Cut down on prepared and processed foods.
- Choose products labelled as low sodium, sodium reduced or no salt added.
- Try other seasonings, such as garlic, lemon juice and fresh or dried herbs.
- When eating out, ask for nutrient information for the menu items and select meals lower in sodium.

Keep active.

- Aim for 30 minutes of physical activity most days of the week. You can get to 30 minutes by doing 10 minutes (or more) of activity 3 times a day.
- Walking is a great way to start. Try biking, jogging, swimming, or any other physical activity you enjoy.
- Look for opportunities to be active every day: Playing outside with the kids, raking leaves, taking the stairs...it is all good!
- Start slowly. Set weekly goals. Increase your level of activity over time.
- Before starting a physical activity program, talk to a healthcare provider about what is right for you.



If you smoke or chew tobacco, quit.

- Have a plan for how you are going to quit.
- Learn how to make a good quit plan. Call the Smokers Helpline for free advice and support 1-877- 513-5333.
- Get support from family, friends, and co-workers.
- Talk to your healthcare provider about whether nicotine replacement therapy or medication is right for you.



If you drink alcohol, drink less.

- Limit yourself to small amounts, pace yourself and drink plenty of water in between.



Manage your stress.

- Know what causes you stress.
- Take a short break away from your regular routine.
- Plan some physical activity into your day.
- Talk to people you trust.
- Try ways to help you relax such as deep breathing or mindfulness meditation.
- Do activities you enjoy. Have some fun.



Quitting smoking

is one of the most important things you can do to prevent heart disease and stroke.

Heavy drinking

is a risk factor for heart disease and stroke. Alcohol can also cause problems with your medications.

Stress can cause

the heart to work harder and increase blood pressure.

Medications for high blood pressure

Changes in your lifestyle definitely help to lower blood pressure. Sometimes these changes are not enough. Many people with high blood pressure need to take 2 or more pills along with making lifestyle changes.

When taking blood pressure medication

- Take your blood pressure medications as directed.
- Continue to take your blood pressure medication, even when your blood pressure has returned to normal. A normal blood pressure reading does not mean your high blood pressure is gone, it just means your medication is working. If you stop taking the medication, your blood pressure will go back up again.
- Do not stop taking medications without first talking with your doctor, unless you have a serious reaction.
- If you notice any side effects, contact your healthcare provider.
- If you miss taking a dose, never take two doses at the same time to make up for the missed dose. If it is almost time to take your next dose, skip your missed dose and just take your next scheduled dose.
- Before taking any new medications, including over-the-counter supplements for other health concerns, talk with your doctor or pharmacist to see if the new medication will affect your blood pressure medication.

Types of medication

Many medications that lower blood pressure also prevent heart attacks and strokes. Types of medications include:

- diuretics (water pills)
- beta blockers
- angiotensin converting enzyme inhibitors (ACE inhibitors)
- angiotensin receptor blockers (ARBs)
- calcium channel blockers

All of these medications lower blood pressure but some people have better results with one medication over another.

These medications vary in cost and possible side effects. Know the type of medication you take, and the dose. It may be helpful to keep a list of your medications handy in your wallet.

Use the same pharmacist for all of your medications. This will help your pharmacist see the full picture and can help you keep track of your medications and refill dates.

Top 5 tips to help you remember to take your medication



- 1** Place your medication out in the open where you can see it – that might be next to where you eat or next to your toothbrush (but away from children and pets).
- 2** Use a pill organizer. They have a separate spot for you to put your pills for each day. Some have spots for different times of the day. A quick look can tell you if you have forgotten a pill or need to take one.
- 3** Ask your pharmacist if you can get your medication in blister packs, also called bubble packs. Some pharmacies will make these for you with enough medication for a week or more.
- 4** Take your medication at the same time every day. Ask your healthcare provider what time is best.
- 5** Put a daily reminder alarm on your watch, cellphone, tablet or computer.



Checking your blood pressure

To check your blood pressure at home, you need a blood pressure monitor. While public blood pressure monitors are helpful, they may not be as accurate.

Buying a blood pressure monitor

If you are looking to buy a monitor and you are not sure what type to buy, check the Hypertension Canada web site for suggestions (look under 'Public' then 'Devices').

Ask your pharmacist to help choose one where the cuff fits your arm.

Unfortunately, none of the costs for the monitor are covered under any medical benefits plan or extended health benefits plan.

How to take a reading

1. About 30 minutes before taking your blood pressure:
 - Do not drink any beverages containing caffeine.
 - Do not smoke.
2. Sit with your feet flat on the floor, your back and arm resting and supported, and your arm placed at the same level as your heart.
3. Place the blood pressure cuff on your bare arm, making sure the cuff is in the correct position. This helps to make sure you are getting as accurate a reading as possible.
4. Rest quietly (ideally for 5 minutes) before you take a reading.
5. Take your first blood pressure reading. Do not speak while the machine is taking your blood pressure.
6. Wait at least 1 minute then take your second blood pressure reading.
7. Write down your readings and the time. Keep a record of the readings. Many apps and online tools are also available to help you track your readings.

Important

Always read the instructions on how to use your blood pressure machine. Ask a healthcare provider for help, if you are not sure if the cuff is in the right place.

How often to take your blood pressure

If you are Medium Risk or High Risk check your blood pressure often **and** have it checked by your healthcare provider at least once every year. In addition, take your blood pressure regularly for a week in these situations:

1. Before each appointment with your healthcare provider.
2. When you start any new medication.
3. When there is a change in your blood pressure medication dose.

This will help you and your healthcare provider understand whether your blood pressure treatment is working or if it needs to be adjusted.

When tracking your blood pressure regularly for a week:

- Take it twice a day, in the morning and in the evening.
- Take it every day, for 7 days. Take 2 readings each time.
- Share the results with your healthcare provider.

Making changes for life

As you plan to make changes in your life, set goals that are realistic and that you are confident you can reach.

How to stay on track

- Keep a record of your blood pressure and the medications you take.
- Set goals for lifestyle changes. Ask yourself how confident you are about reaching the goal. If you don't feel confident, change the goal to one you can reach. Example: Instead of a goal of walking 30 minutes every day, maybe start with walking for 10 minutes a day, 3 days a week.
- Take one step at a time. Set new goals as you progress. Success is key to moving forward.
- If you feel stuck, stop and look at what might be keeping you from sticking to your plan. A good way to check in on your plan is to keep a record of what you eat each day, what physical activities you are doing, and your weight. Compare this to your blood pressure readings. Can you see any patterns? Can you see where you could make some changes?

**Don't give up.
Get back on track.**

Reward yourself when you reach major goals!
Choose something you like to do, not food.



What would you like to do for your health?

I am going to take these actions:

1. _____

2. _____

3. _____



We can help with tips and advice for managing your blood pressure and how to make healthy changes.

Visit heartandstroke.ca/bloodpressure



heartandstroke.ca

© Heart and Stroke Foundation of Canada, 2022 | ™ The heart and / Icon on its own and the heart and / Icon followed by another icon or words are trademarks of the Heart and Stroke Foundation of Canada.

This publication *Managing your blood pressure* is for informational purposes only and is not intended to be considered or relied upon as medical advice or a substitute for medical advice, a medical diagnosis or treatment from a physician or qualified healthcare professional. You are responsible for obtaining appropriate medical advice from a physician or other qualified healthcare professional prior to acting upon any information available through this publication.