

## What is blood pressure and why is it important?

Blood pressure is a measure of how hard the blood pushes against the walls of your arteries as it moves through your body. This force makes blood flow possible to organs and tissues throughout your body.



Blood pressure control is common in and particularly important for patients with kidney disease. When blood pressure is not well controlled, it can cause serious health issues including **reducing your kidney function over time** or increasing your risk of developing heart disease or having a stroke.

## Why do I need to monitor my blood pressure at home?

Taking your blood pressure regularly at home is more accurate than having it taken at a doctor's office or clinic. Some people experience high blood pressure when seeing a health care provider ("white coat effect"). Routine home monitoring is a better way to follow your blood pressure trends than just checking it in the doctor's office every now and then. Monitoring your own blood pressure puts you in control of your own health!

### Home blood pressure monitoring helps:

- Identify changes in your blood pressure over time:
  - High blood pressure usually does not cause symptoms so you may not know that it is high (some call it a "silent killer")
  - If you see a change in your blood pressure, you can contact your kidney care team to see if changes in your treatment plan are needed
- (rather than waiting for your next appointment). This prevents high blood pressure from harming your blood vessels and organs.
- Identify if symptoms you are experiencing (e.g., headache, dizziness) are related to your blood pressure.
- Track your blood pressure response to changes in your treatment plan, such as physical activity, diet, and medication changes.

## When should I take my blood pressure and heart rate?

- Wait at least 1 hour after drinking coffee or smoking and at least 30 minutes after exercise before taking your blood pressure (these can increase your blood pressure and heart rate).
- It is best to take your blood pressure before taking your blood pressure medications. If this isn't practical for you, talk with your kidney care team about an alternate time to take your blood pressure.

## How often should I take my blood pressure and heart rate?

Your kidney care team will suggest how often to take your blood pressure and heart rate. You may be asked to take them more often for a short period (e.g., when you first start measuring your blood pressure at home, before each clinic visit, after changes in your treatment). When your blood pressure and heart rate are stable, it may be enough to take them one to three days a week.

- If you are asked to take your blood pressure and heart rate twice a day, the first measurement should be in the morning before eating or taking your blood pressure medications, and the second in the evening 2 hours after dinner.

## When taking your blood pressure and heart rate

1. Find a comfortable, distraction-free place.

2. Sit with your feet flat on the floor and back supported. Put your bare arm on an arm rest or table at heart level. If you are asked to check a standing blood pressure the team will describe how.
3. Place the cuff on the arm you use the least (non-dominant arm) unless your team tells you otherwise (e.g. use the arm without a fistula if you have one in place for dialysis, or use the right arm if you are a child).
4. Place the cuff on bare skin, not over clothing. Short sleeved shirts are best so that you can push your sleeve up comfortably. Use the same arm each time.

**BLOOD PRESSURE MEASUREMENT**

**When you measure your blood pressure:**

- ✓ Sitting position
- ✓ Back supported
- ✓ Arm bare and supported
- ✓ Use a cuff size appropriate for your arm
- ✓ Middle of the cuff at heart level
- ✓ Apply cuff according to manufacturer's instructions
- ✓ Do not talk or move before or during the measurement
- ✓ Legs uncrossed
- ✓ Feet flat on the floor

**When should I take the readings?**

- ✓ Before breakfast and 2 hours after dinner
- ✓ After emptying bladder and bowel if needed
- ✓ No tobacco, no caffeine in the hour before
- ✓ Before taking your medication
- ✓ After a 5 minute rest
- ✓ No exercise 30 minutes before

**What device should I use?**

- ✓ Electronic device that is validated as accurate
  - See Hypertension Canada's Recommended devices at [hypertension.ca](http://hypertension.ca)
  - Ask your pharmacist for an appropriate cuff size
  - Devices that carry the logos to the right

Recommended by Hypertension Canada (Canada)

Recommended by Hypertension Canada (USA & Japan)

What is my target?  /  mmHG  
systolic diastolic

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

Image © Hypertension Canada.

[Hypertension.ca](http://Hypertension.ca)

5. Squeeze the air out of the cuff and wrap it around your bare arm. Make sure the cuff is aligned properly. Most cuffs will have an indicator for this.
6. Rest quietly for 5 minutes before starting. Some people like to do relaxation exercises beforehand.
7. At each measurement, take 2 readings, one minute apart. If your 2 readings are very different, discard the 1st reading and take a 3rd reading. **If your readings are unusually high or low, wait 5 minutes and test again.**
8. Useful videos on using your home blood pressure monitor:
  - [www.youtube.com/watch?v=0tGyRJxbYpQ](http://www.youtube.com/watch?v=0tGyRJxbYpQ) (4.5 min)
  - <https://hypertension.ca/hypertension-and-you/about-hypertension/what-is-high-blood-pressure> (Hypertension Canada, 10 min)

### Record your blood pressure and heart rate:

- Write your blood pressure and heart rate in your calendar or on a blood pressure log.
  - For sample blood pressure log, please visit [BCRenal.ca](http://BCRenal.ca) ► [Health Info](#) ► [Kidney Care \(Non Dialysis\)](#) ► [Resources for Kidney Patients](#)
  - Apps are also available if it is easier for you to enter your blood pressure and heart rate into an app instead of writing on a calendar/log.
- Record how you are feeling at the time your blood pressure and heart rate was taken, especially if you are feeling different from your normal.

### Checking your blood pressure device

Have your device checked at least once per year or if it gets dropped or damaged to make sure it is measuring your blood pressure accurately.

Take it to your doctor's office, kidney care clinic or community pharmacy. The doctor, nurse or pharmacist will compare the measurement taken on your device with the measurement taken on the device in the office/clinic/pharmacy.

Readings don't have to match exactly. Your health care provider will tell you if it is working properly.



## What else do I need to think about?

1. Bring your blood pressure and heart rate measurements to your clinic appointments.
- 2. Take all medications as prescribed, even when your blood pressure is within your target range. Don't change your medications (including over-the-counter medications or supplements) without talking to your kidney care team.**
3. A healthy diet and physically active lifestyle is key to maintaining your blood pressure at target. Talk to your kidney care team before making major changes to your diet.
4. Home blood pressure monitoring is important, but it is NOT a substitute for clinic visits.
5. Make taking your blood pressure part of your usual routine. Set your watch or phone to remind you or download a blood pressure tracking app which allows reminders. Keeping the machine in a visible place will also help serve as a reminder.
6. Blood pressure changes naturally many times a day. If it fluctuates a lot, your health care provider may suggest other methods to measure your blood pressure.
7. If you have bad flu or other illness which causes you to vomit or have diarrhea AND you cannot eat or drink normally, you may become dehydrated. Dehydration can affect your kidney function and blood pressure. Know which medications you should temporarily stop taking if this happens. Visit: [www.bcrenal.ca/resource-gallery/Documents/Medication%20Changes%20When%20You%20Are%20Sick.pdf](http://www.bcrenal.ca/resource-gallery/Documents/Medication%20Changes%20When%20You%20Are%20Sick.pdf)

## What to Do with My Blood Pressure Results

### What do the numbers mean?



Your blood pressure reading is based on two numbers:

1. Systolic blood pressure (first or top number): tells how much pressure your blood is exerting against your artery walls when the heart beats
2. Diastolic blood pressure (second or bottom number): tells how much pressure your blood is exerting against your artery walls when the heart is resting between beats

Both numbers are important and help to predict your risk of developing heart disease or having a stroke.

Most machines also give a third number which is your heart rate (pulse). Your heart rate is important but not directly related to your blood pressure, so it is not included in your target.



## What do I do if my blood pressure is out of range (low or high)?

Different people have different blood pressure targets depending on their health conditions and other factors. Your exact target should be discussed with your care team. This target may change over time. If you are recovering from a serious illness or hospitalization, ask your care team to review your target.

At each measurement, take 2 readings, one minute apart. If your 2 readings are very different, discard the 1st reading and take a 3rd reading. **If your readings are unusually high or low, wait 5 minutes and test again.**

### Blood pressure target:

My blood pressure target is:

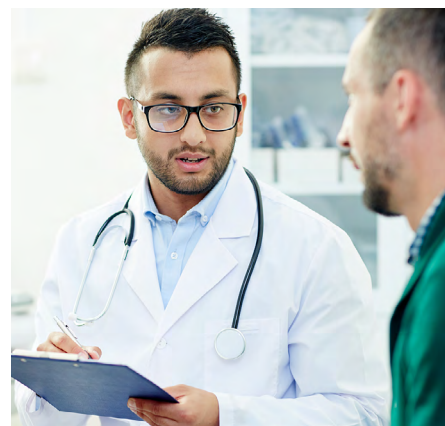
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Date:

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## When to contact your kidney care team or primary care provider:

If your blood pressure is more or less than 10 mm Hg above or below target (top or bottom number) over several readings and days, bring this up at your next appointment with your kidney care team or primary care provider. If your next appointment is not coming up soon or you are concerned about your blood pressure, contact your kidney care team or primary care provider.



## When to seek medical assistance immediately:

If you are experiencing a sudden onset or new or worsening symptoms of chest pain, shortness of breath, light headedness/dizziness, change in vision or difficulty speaking.

OR

If your blood pressure is more than 180/110 (top or bottom number) even if you are not experiencing symptoms.

