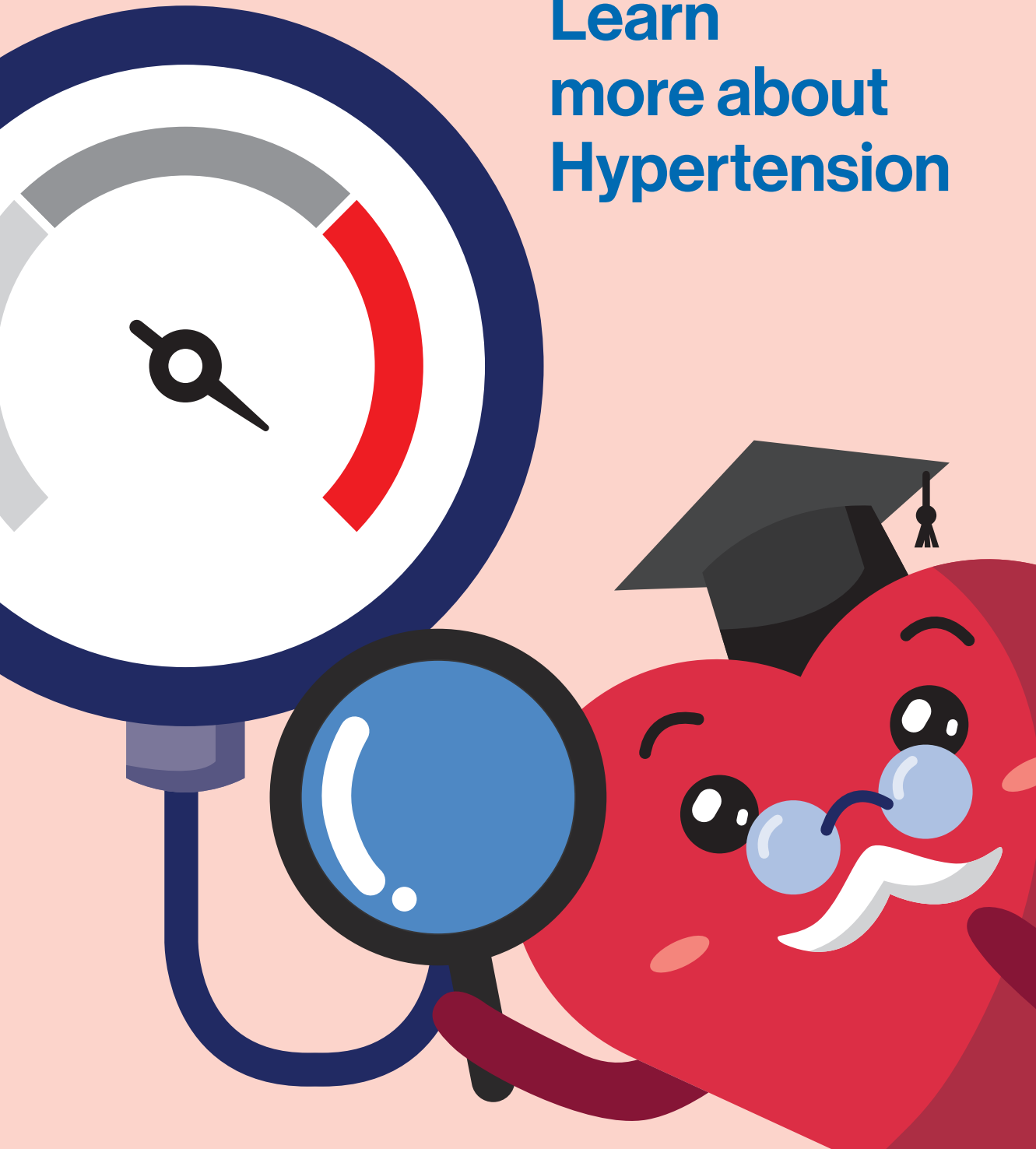


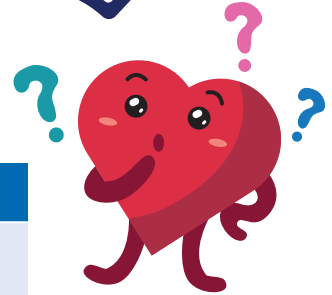
The Pressure's On:

Learn
more about
Hypertension



What is hypertension?

High blood pressure, also called hypertension, is a condition in which the heart has to pump harder for blood to flow through narrowed blood vessels, leading to persistently raised pressure. It is common but can be serious if not treated.¹

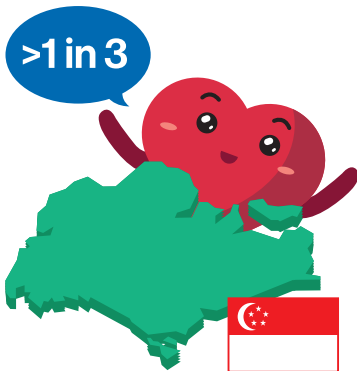


Blood Pressure (BP) Level (mmHg)*

Category	Measured at doctor's office	Measured at home
Non-elevated	SBP <120 mmHg and DBP <70 mmHg	SBP <120 mmHg and DBP <70 mmHg
Elevated	SBP 120–139 mmHg or DBP 70–89 mmHg	SBP 120–134 mmHg or DBP 70–84 mmHg
Hypertension	SBP ≥140 mmHg or DBP ≥90 mmHg	SBP ≥135 mmHg or DBP ≥85 mmHg

Some patients experience higher blood pressure in the doctor's office due to anxiety (known as white coat hypertension). Home measurements can help identify this, which explains the differences in BP thresholds.

*Based on 2024 ESC guidelines for hypertension. SBP – systolic blood pressure; DBP – diastolic blood pressure



Incidences of hypertension

Hypertension affects 1.28 billion adults worldwide.² In Singapore, over 1 in 3 Singapore residents aged 18-74 years had hypertension.³

Why is hypertension known as the silent killer?

Hypertension usually causes no symptoms, but often leads to the damage of various body organs in the long-term.⁴



What increases your risk of having hypertension¹?



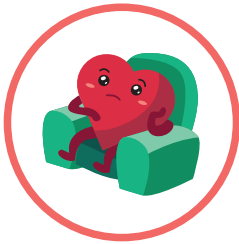
Older age



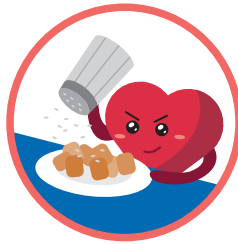
Genetics



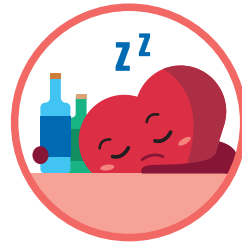
Being overweight or obese



Not being physically active



High-salt diet



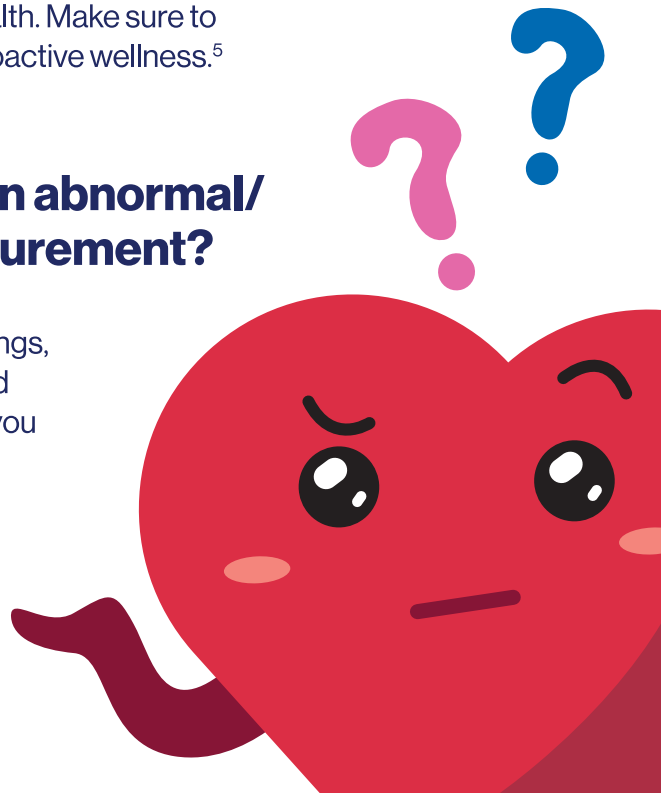
Drinking too much alcohol

How do I know if I have hypertension?

Regularly monitor your blood pressure at home using a blood pressure monitor to stay on top of your health. Make sure to include these checks in your routine for proactive wellness.⁵

What to do in the case of an abnormal/high blood pressure measurement?

If your blood pressure reading at home is significantly different from your usual readings, rest for 15 minutes and then take your blood pressure again. If it remains abnormal or if you are experiencing symptoms, contact your doctor as soon as possible.⁵



Complications of hypertension



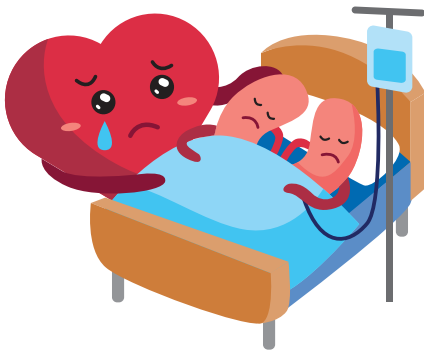
If your blood pressure (BP) is not treated, you might develop serious complications like heart disease, kidney disease, stroke, blindness and sexual dysfunction.⁶

Heart disease

Heart disease: Hypertension doubles the risk of heart disease.⁷

Heart attack: The arteries can become blocked, preventing blood flow to the heart muscle.⁶

Heart failure: High blood pressure makes the heart work harder. This can cause the heart to get bigger and struggle to pump enough blood to the body.⁶



Kidney

Hypertension can lead to worsening kidney function as damage in the arteries around the kidneys can stop them from filtering blood the right way.⁶

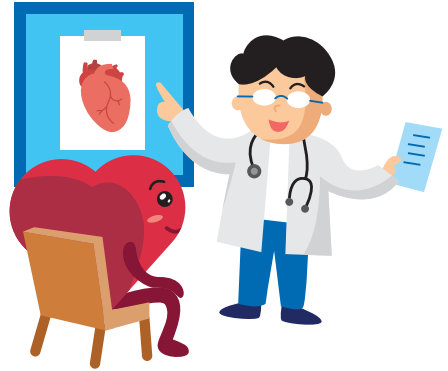
Brain

Uncontrolled hypertension can increase the risk of stroke by four times.⁹ Hypertension damages arteries throughout the body, creating conditions that can cause arteries to burst or clog easily.⁶ Weakened or blocked arteries in the brain create a much higher risk for stroke.



How can I work with my doctor to manage my BP?⁵

- Monitor and track your blood pressure readings regularly, and share them with your doctor.
- Consult your doctor to create a treatment plan if necessary, to help control your blood pressure.



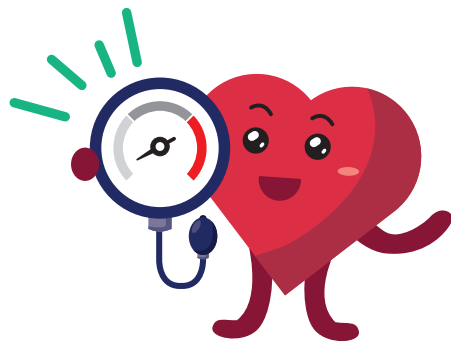
Do your part to reach your treatment goals

- Work with your doctor to determine your treatment goals and create the best action plan.⁵
- Change your lifestyle as advised.⁴
- Take medication regularly and follow your doctor's instructions.¹¹
- Consistent blood pressure monitoring at home is essential for the prevention of hypertension-related complications.⁵



Recommended target of BP-lowering therapy¹²

- Aim 120-129/70-79 mmHg.



Treatment options for Hypertension and BP Goals

✓ Renin-angiotensin-aldosterone system inhibitors (RAASi)

- **Angiotensin converting enzyme (ACE) inhibitor**

How it works: Prevent the formation of a substance called angiotension II, which normally causes blood vessels to constrict.¹¹

- **Angiotensin receptor blocker (ARB)**

How it works: Block the action of angiotension II at the blood vessel walls and thereby prevent the constriction of blood vessels.¹¹

✓ Angiotension receptor-neprilysin inhibitor (ARNi)¹²

How it works: Allows blood vessels to relax and widen to make it easier for the heart to pump blood around the body.¹³

✓ Beta blockers

How it works: Reduce heart rate and heart's output of blood.¹¹

✓ Calcium channel blockers

How it works: Keep calcium from entering the muscle cells of the heart and blood vessels. This causes the blood vessels to relax and dilate.¹¹

✓ Diuretics

How it works: Get rid of excess water and salt (sodium) from the body.¹¹

✓ Single-pill combination

Hypertension treatment usually require more than one blood pressure-lowering medication. European Society of Cardiology (ESC) 2024 Guidelines recommend low-dose combination therapy to treat hypertension, in which single-pill combinations¹¹ are preferred.

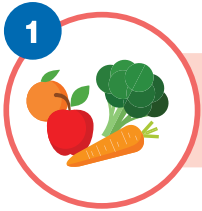
Advantages of single-pill combination include:

- Reduced side effects
- Improved adherence to medications
- Faster blood pressure control

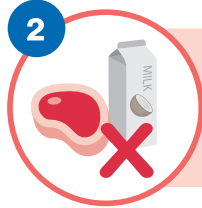
If your blood pressure is still not controlled after 1-3 months of low-dose double combination therapy, a low-dose triple combination therapy may be considered.¹¹

Lifestyle modifications advice

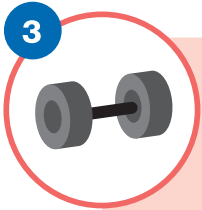
What are some changes you can make to your lifestyle to lower your blood pressure?



Commit to a healthier diet by increasing your intake of fruits and vegetables, and ask for less salt and sauce when eating out.^{5,11a}



Avoid food high in cholesterol and saturated fats such as red meat (e.g. beef and lamb), coconut milk, animal fats.¹³



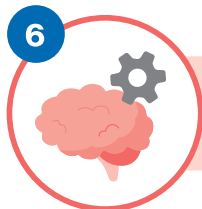
Exercise regularly. Aim for at least 150 minutes light to moderate activity per week, 30 mins per day. Walking, swimming, dancing – anything that gets your heart pumping counts!⁵



Maintaining a healthy body weight helps lower your blood pressure.¹⁴



Quit smoking. Smoking raises blood pressure and increases the risk of coronary artery disease and stroke.^{5,14}



Good stress management (stress may aggravate your blood pressure).^{5,14}



Reduce alcohol intake (Heavy drinking raises blood pressure).⁵

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