

MONITORING OF BLOOD PRESSURE

Why is monitoring of blood pressure important?

If you have high blood pressure (BP), measuring and monitoring your blood pressure at home, or home blood pressure monitoring (HBPM), is a critical component in the overall management as it will help to determine if your prescribed treatment is adequate or if adjustments will be needed.

In Singapore, the Ministry of Health recommends regular home blood pressure monitoring as the readings taken at home are usually slightly lower

compared to clinic or office measurement.¹ This is commonly known as “white-coat” hypertension, when a person is in an alerted response state and resulted in an exaggerated blood pressure measurements.²

Regular home blood pressure monitoring allows you to measure your blood pressure in a familiar environment and provides a large number of measurements, which allows for a more reliable assessment of the variations over a longer period of time.

How to measure your blood pressure

Knowing how to measure your own blood pressure also helps ensure that it is well controlled because prolonged and extreme fluctuations in your blood pressure can put you at higher risk of cardiovascular complications in the long term.³

Goal of home monitoring is to reach blood pressure $\leq 135/85$ mmHg¹

Advantages of regular home blood pressure monitoring

Reduces error from white-coat hypertension



White-coat hypertension is when the BP readings by your doctor, who usually wears a white coat, are usually higher than if your BP were measured outside of the clinic or measured by someone else.²

- May result from patients' stress
- May indicate a higher risk of developing high BP in the long term

Home BP monitoring helps determine if a patient is truly hypertensive.

Helps in the management of chronic diseases

Chronic diseases that are often present alongside high blood pressure include type 2 diabetes mellitus and kidney failure.

Poorly controlled BP can worsen these conditions. Home BP monitoring can help ensure that your BP is well controlled or if further intervention is needed.

Cost-effective

Home BP monitoring allows for successful detection and early treatment of hypertension, which may help reduce costs by preventing future complications.⁴



Helps you take ownership of your health

Home BP monitoring empowers you to take responsibility for your own health. Keeping track of your own BP can help you to be more compliant with your therapy⁵

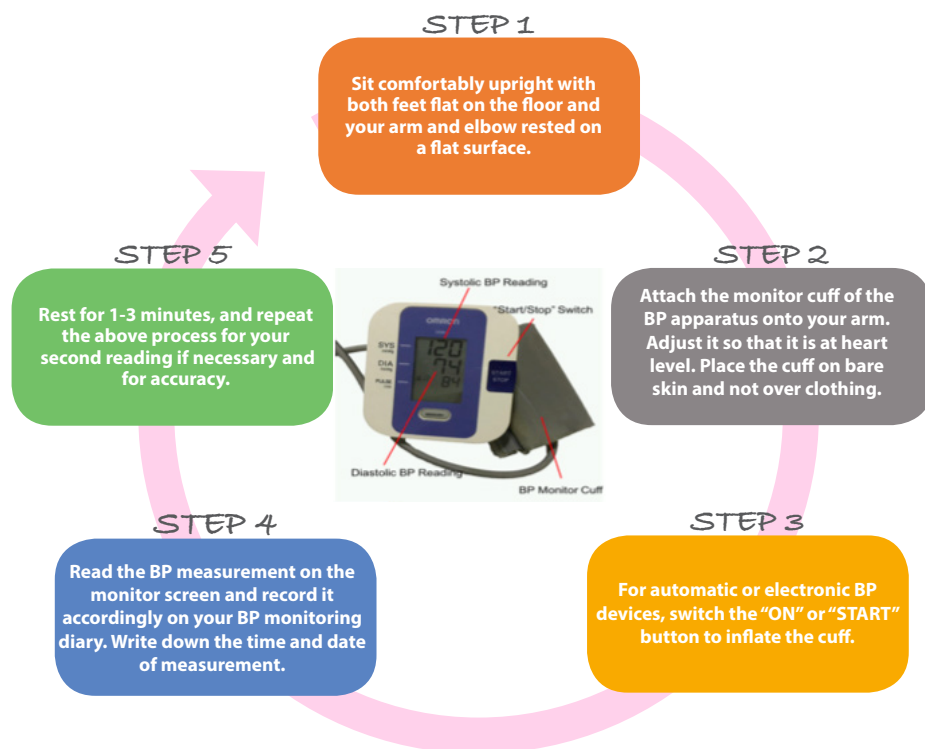
Measuring your blood pressure: Tips and trick

Blood pressure measurements may be taken twice daily, ie, in the mornings and evenings.

Automatic or digital blood pressure devices are generally recommended for convenience and easier use. Digital monitors that are fitted on the upper arm are generally the most accurate.

The following step-by-step instructions should guide you on how to measure your blood pressure accurately. Remember to record your blood pressure measurements on a monitoring sheet such as in Table 1, and bring them with you on your next doctor's appointment for reference and discussion.

Tips to remember when measuring your blood pressure⁶



IMPORTANT!⁶
Have at least 5 minutes of seated rest before taking your BP, whether in the morning or evening. Avoid food, caffeine, smoking, or alcohol at least 30 minutes before measuring your BP—these may increase your BP.

IMPORTANT!⁶
The inflatable cuff should be properly fitted to ensure accurate BP measurement. Ask your healthcare provider what cuff is appropriate for you.

[Click video for more details.](#)

Table 1. Sample blood pressure monitoring chart

	Day 1		Day 2		Day 3		Day 4		Day 5		Day 6		Day 7	
	Morning	Evening	Morning	Evening	Morning	Evening	Morning	Evening	Morning	Evening	Morning	Evening	Morning	Evening
Systolic BP (Reading 1)														
Diastolic BP (Reading 1)														
Date/Time														
Systolic BP (Reading 2)														
Diastolic BP (Reading 2)														
Date/Time														
	Average BP (excluding Day 1)										SBP	_____	DBP	_____

References
¹ Ministry of Health (MOH) Singapore. Hypertension: MOH Clinical Practice Guidelines, 2017. Available at: https://www.moh.gov.sg/content/dam/moh_web/HPP/Doctors/cpg_medical/current/2017/hypertension/cpg_Hypertension%20Booklet%20-%20Nov%202017.pdf. Accessed February 19, 2018. ² White coat hypertension: When blood pressure rises at the doctor's office. Mayo Clinic website. Available at: <https://www.mayoclinic.org/diseases-conditions/high-blood-pressure/expert-answers/white-coat-hypertension/faq-20057792>. Accessed February 26, 2018. ³ Setia S, Subramaniam K, Tay J, Teo B. *Vasc Health Risk Manag* 2017;13:275-285. ⁴ Arrieta A, Woods JR, Qiao N, Jay SJ. *Hypertension* 2014;64:891-896. ⁵ Harvard Health Publishing. Harvard Medical School. Available at: <https://www.health.harvard.edu/blog/checking-blood-pressure-at-home-pays-off-201307036436>. Accessed April 7, 2018. ⁶ Get the most out of home blood pressure monitoring. Mayo Clinic website. Available at: <https://www.mayoclinic.org/diseases-conditions/high-blood-pressure/in-depth/high-blood-pressure/art-20047889> and <https://www.mayoclinic.org/diseases-conditions/high-blood-pressure/in-depth/high-blood-pressure/art-20047889?pg=2>. Accessed February 27, 2018.