

# **Blood Pressure**

## What is blood pressure?

Blood pressure is a measurement of the pressure within the arteries when your heart beats. As your heart beats the pressure in your arteries rises and falls. A rise corresponds with the heart contracting forcing blood through and the falls are when the heart is relaxed, waiting for the next heartbeat.

The measurement is expressed as two numbers e.g. 120/80 mmHg. The first number relates to the pressure at the peak of the rise (systolic) and the second as the base of the fall (diastolic).

### What do all the numbers mean, what is high or low blood pressure?

Blood pressure varies throughout the day according to what you are doing. At rest the heart does not need to work as hard, so your blood pressure should be within normal limits. When you get up and move around, the heart needs to pump harder and faster to deliver more blood as the muscles of the body require more to make energy. Our blood pressure changes all the time.

Blood Pressure can also rise due to anxiety, excitement and nervousness. So a series of blood pressure readings will be needed to accurately assess your blood pressure. Persistent high blood pressure is called hypertension.

High blood pressure or hypertension is classified by the Heart Foundation as above 140/90mmHg. Normal blood pressure is below 130/85mmHg. If you have heart disease or diabetes the aim is to be 130/80mmHg or below. To determine if you have high blood pressure the reading should be taken at rest and confirmed at another time.

Low blood pressure is however different for everybody. People who naturally have a blood pressure of 100/70 may feel fine when it drops to 90/60, yet others who usually have a blood pressure of 150/90 may feel dizzy or sick with a blood pressure of 100/70. Their body is used to their blood pressure being higher and they are not able to tolerate such a drop in a short period of time.

#### How do you get high blood pressure and what does it do?

High blood pressure develops over a long period of time. There are risk factors which increase chances of developing high blood pressure including;

- obesity,
- poor diet,
- lack of physical activity,
- stress,
- smoking,
- excessive alcohol intake.

There are other risk factors which are not controllable by us and these are; getting older, family history and some ethnic groups are at a higher risk than others.

Blood pressure can be checked when you visit the GP who use guidelines set by the National Heart Foundation to know how regularly they should test blood pressure.

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When we have high blood pressure the heart needs to do more work to pump the same amount of blood around the body, this can cause the heart to become enlarged. Extra pressure on artery walls also makes them become harder, less elastic and easier for plaque to build up. This can cause an increased risk of a heart attack or stroke. High blood pressure can also damage your kidneys. When you have high blood pressure with other conditions like diabetes, obesity, high cholesterol or if you smoke, you risks of developing these problems increase.

### How to reduce your blood pressure

To avoid getting high blood pressure, maintain a healthy weight, be physically active, do not smoke, drink alcohol in moderation, have a healthy diet and reduce salt intake. If you already have high blood pressure it is important that you take your prescribed medication and see your GP regularly for check-ups. Talk to your GP if you have any questions about your blood pressure More information can be found on Heart Foundation website <a href="https://www.heartfoundation.com.au">www.heartfoundation.com.au</a>

## Taking your blood pressure at home

If you want to be able to take your blood pressure at home it is important that you are aware of the correct technique. When buying a blood pressure machine make sure you read all instructions thoroughly.

For a resting blood pressure:

- Make sure you are comfortable sitting or lying without distractions,
- Wait 5 to 15 minutes for your blood pressure to settle,
- Put on the cuff on your upper arm around 3 cm above your elbow crease, with the pressure sensing device on the inside of your arm,
- Make sure you are sitting or lying that arm in level with your heart,
- If you have an aneroid monitor, place a stethoscope over the pulse in your elbow crease and inflate the cuff around 40mmHg above your normal blood pressure. Slowly let the air from the valve till you can hear your heart beat. These first sounds indicate your systolic blood pressure. Still slowly decreasing the pressure, you will hear your heart beat until you reach your diastolic blood pressure, where the sound goes away. Aneroid tend to be more accurate, but pose problems if you have hearing or sight difficulties,
- If you have an electronic machine turn it on and press the inflate/start button or pump up the bulb when it is ready. The machine will deflate the cuff on its own and give you the reading after, often with your heart rate as well.

#### Other considerations

Your doctor may ask you to take your blood pressure differently to see if it changes under different circumstances (like if you get dizzy first thing in the morning when you get up). Just make sure you know exactly how they want you to take it.

Recording the results is a good way of seeing patterns in your blood pressure. Record different things you did where there are abnormal results or missed medication or had medications or doses changed.

Remember it is not necessary to take blood pressure all the time and while it is a useful tool in managing high blood pressure expect your results to not always be perfect. If you have a very high or low result, wait a few minutes and then repeat it. If you have any further concerns about a persistent high blood pressure see your doctor.