

Hypertension



What is hypertension?

Blood pressure (BP) refers to the pressure in the large arteries when the main pumping chamber of the heart is at maximal contraction and relaxation. BP is usually presented as two numbers: the higher, systolic BP (normally less than 120 mmHg); and the lower diastolic BP (normally less than 80 mmHg). The two pressures are usually expressed together, for example '120 over 80'. These values represent an estimation of the pressure that the organs are exposed to. High BP is called hypertension. Hypertension is a major risk factor for cardiovascular disease (e.g. heart failure, stroke, coronary heart disease), chronic kidney disease and early death. Hypertension may not cause any symptoms, which is why it is sometimes referred to as a 'silent killer'.

How does exercise help with hypertension?

Regular aerobic exercise has a variety of effects that protect against heart disease and diseases of the blood vessels, including high BP. Scientific studies have shown that, if systolic BP is reduced by 5 mmHg, deaths from strokes decrease by 14% and deaths from coronary heart disease (i.e. blocking of the blood vessels that supply the heart) decrease by 9%. These results emphasise why lifestyle changes, including regular exercise, are important first steps in preventing and treating hypertension.

Things to remember

- It is important to discuss starting an exercise program with your doctor. Accredited Exercise Physiologists have advanced training in understanding the impact of exercise on specific chronic conditions. Exercise is usually very safe and beneficial whether or not BP-lowering (antihypertensive) medication is used. Depending on the type of medications being taken, it is important to ensure you have adequate hydration, appropriate warm up and cool down periods and to avoid exercise in very hot conditions.
- Having other chronic conditions such as diabetes is often associated with elevated BP and this can display adverse changes in your blood vessels, putting you at increased risk of heart disease and early death. Regular exercise training in people with diabetes is important for lowering BP and minimising the excess risk.

What type of exercise is best for hypertension?

Regular exercise is the first treatment recommended to lower BP and improve cardiovascular health, both in the general public and in those people with hypertension.

- **Aerobic exercise** reduces resting BP and also reduces BP during light exercise and daily activities. Additionally, aerobic exercise protects against developing hypertension in the future. These effects occur in both men and women, with normal or raised BP.
- **Resistance exercise training** (e.g. lifting weights) and **isometric exercises** (i.e. holding a contraction) also produces small, but measurable, benefits for BP.

People with a resting systolic BP of 180 mmHg or more, or a resting diastolic BP of 110 mmHg or more, should postpone their exercise program and seek medical advice.