

HYPERTENSION

THE SILENT KILLER AND ITS IMPACT ON HEALTH

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Hypertension is often referred to as a "silent killer" because it typically presents no noticeable symptoms until it causes severe complications such as heart attacks, strokes, or kidney disease. Understanding how this condition develops and affects our bodies is crucial for prevention and early intervention.

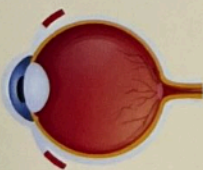
Hypertension, or high blood pressure, is a condition where the heart must pump harder for blood to flow through the blood vessels, creating consistently high pressure against the artery walls. Blood pressure is measured using two numbers – the systolic pressure when the heart beats and the diastolic pressure when it rests.

When these readings consistently show 140/90 mmHg or higher, a person is diagnosed with hypertension.

Without regular monitoring, many people only discover they have hypertension after it has already affected their health. Over time, this silent condition can damage vital organs, weakening blood vessels, thickening heart wall muscles, and reducing kidney function.

HYPERTENSION

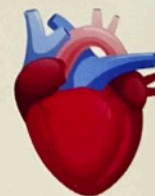
Organ Damage Caused by Hypertension



RETINOPATHY
(Affects Eye Vessels)



STROKE



**HEART FAILURE
AND HEART ATTACK**



PERIPHERAL ARTERIAL DISEASE
(Pain in Lower Limb)



**KIDNEY DAMAGE
AND FAILURE**

In Singapore, the numbers are concerning. According to the National Population Health Survey 2022, hypertension affects one in three adults (aged 18 to 74 years), with prevalence nearly doubling from 19.8% in 2010 to 37.0% in 2021-2022 among Singapore residents. This rise stems from several key factors – an ageing population, sedentary lifestyles, and dietary habits high in salt and processed foods. Singaporeans of South Asian and Malay descent may have a higher genetic predisposition to hypertension, and urban stressors like long working hours further contribute to the risk.

Understanding Impact and Prevention

The impact on our hearts is significant. When blood pressure remains elevated, the heart must work harder to pump blood, leading to thickening of the heart muscle (left ventricular hypertrophy). This thickening process typically develops gradually over years of uncontrolled hypertension. Over time, this increases the risk of heart failure, where the heart struggles to pump efficiently. The thickened heart muscle requires more oxygen but often receives less blood supply, creating an imbalance that results in further damage to the heart. Moreover, hypertension is a risk factor for the development of coronary artery disease, raising the likelihood of heart attacks. These complications are dangerous because they can develop quietly over years, leading to sudden life-threatening events.

Beyond heart complications, hypertension is a leading cause of stroke because it weakens blood vessels, making them more prone to rupture or blockage. Chronic high blood pressure can also contribute to vascular dementia, as reduced blood flow to the brain over time damages cognitive function. Studies show that individuals with uncontrolled hypertension are at higher risk of memory problems and accelerated cognitive decline.

While poor diet and lack of exercise are well-known factors affecting blood pressure, lesser-known contributors include poor sleep quality, excessive screen time, and environmental noise pollution. Sleep deprivation disrupts the body's ability to regulate stress hormones and blood pressure, increasing cardiovascular risk. Chronic exposure to noise, such as traffic and workplace sounds, has also been linked to higher blood pressure levels. Prolonged stress triggers the release of stress hormones like cortisol and adrenaline, which cause temporary spikes in blood pressure. When stress becomes chronic, these spikes can contribute to long-term hypertension. Practices such as mindfulness, deep breathing, and regular physical activity can help manage stress and maintain stable blood pressure levels.

Many young adults in their 20s and 30s assume hypertension is only a concern for older individuals, but early prevention is key. Monitoring blood pressure regularly, adopting a balanced diet, staying physically active, and avoiding smoking and excessive alcohol can all help reduce long-term risk. Getting adequate sleep daily and managing stress through regular relaxation practices are also essential preventive measures. Establishing healthy habits early can prevent hypertension from developing later in life.

For those looking to manage or lower their blood pressure, adopting the following habits can help:



INCREASE POTASSIUM INTAKE

Potassium-rich foods like bananas, spinach, and sweet potatoes help counteract the effects of sodium.



STAY ACTIVE

At least 150 minutes of moderate aerobic exercise (jogging, swimming, cycling, etc.) per week can improve heart health.



PRACTISE STRESS MANAGEMENT

Activities such as yoga, meditation, and nature walks help regulate blood pressure.



LIMIT PROCESSED FOODS INTAKE

Reducing intake of fast food and packaged snacks lowers excess sodium consumption.



MONITOR BLOOD PRESSURE REGULARLY

Keeping track of blood pressure levels allows for early intervention if needed.

Hypertension may be silent, but with awareness and proactive management, individuals can significantly lower their risk and maintain healthy heart function.

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