

Hypertension: Key Facts and Preventive Actions

Key Messages

An adult is said to have hypertension if systolic blood pressure is persistently higher than or equal to 140 millimeters of mercury (mmHg) and/or diastolic blood pressure is persistently higher than or equal to 90 mmHg.

Hypertension is a major public health issue because of its high prevalence with significant impact on population health. Among persons aged 15–84 in Hong Kong, the Population Health Survey (PHS) 2020-22 showed that the prevalence of hypertension was 29.5%.

Hypertension is a “silent killer” and often has no overt symptoms. Many people with hypertension are unaware that they have the condition until complication develops (such as heart attack, stroke or kidney disease).

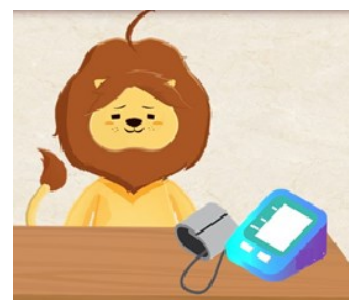
While adopting a healthy lifestyle is essential for the prevention and control of hypertension, having regular blood pressure checks allows early detection and treatment of hypertension if indicated.

Introduction

Blood pressure is the force of blood pushing against the walls of the blood vessels (arteries) as the heart pumps out blood. It fluctuates throughout the day and can vary from minute to minute with emotions, different levels of physical activity, sleep or other factors. Maintaining both systolic blood pressure (i.e. the highest pressure in blood vessels when the heart beats) and diastolic blood pressure (i.e. the lowest pressure in blood vessels as the heart relaxes between beats) at optimal levels are important for the efficient function of vital organs (such as the heart, brain and kidneys) and for overall health¹. Hypertension (also known as high or raised blood pressure) is a condition in which the blood vessels have persistently raised pressure.

As a significant preventable cause of morbidity and premature death worldwide², reducing or containing the prevalence of raised blood pressure is one of the nine targets of the World Health Organization (WHO) Global Action Plan for the Prevention and Control of Non-communicable Diseases 2013-2020 (now extended to 2030^{3, 4}). The Government of the Hong Kong Special Administrative Region (Government)

is committed to containing the prevalence of raised blood pressure among the local population with policies aimed to promote prevention and improve management of high blood pressure. This article presents the key facts about hypertension, urging members of the public to maintain vigilance against the disease and take appropriate actions to prevent or delay the onset of raised blood pressure.



Hypertension is persistently elevated of systolic blood pressure, diastolic blood pressure, or both

An adult is said to have hypertension if systolic blood pressure is persistently higher than or equal to 140 millimeters of mercury (mmHg) and/or diastolic blood pressure is persistently higher than or equal to 90 mmHg (Table 1)^{2, 5}. However, individual with above-optimal blood pressure should also be of concern as it is a warning sign that they are at risk of developing hypertension and some life-style changes are required⁵.

Table 1: Classifications of blood pressure for adults

Classification	Systolic blood pressure (mmHg)		Diastolic blood pressure (mmHg)
Optimal	lower than 120	and	lower than 80
Normal	120 to 129	and	80 to 84
High normal	130 to 139	or	85 to 89
Hypertension	higher than or equal to 140	or	higher than or equal to 90

Hypertension is a major public health issue because of its high prevalence with significant impact on population health

Over the past three decades, the global number of adults aged 30–79 years living with hypertension has doubled from about 648 million (317 million men and 331 million women) in 1990 to an estimated 1.28 billion (652 million men and 626 million women) in 2019. After adjusting differences in the age structures of different populations, the age-standardised prevalence of hypertension slightly increased from 32% (32% in men and 32% in women) to 33% (34% in men and 32% in women) over the same period⁶. As a significant contributor of burden of disease, high systolic blood pressure accounted for about 226 million of global disability-adjusted life years (i.e. number of healthy years lost due to ill-health, disability, or early death) in 2021⁷.

In Hong Kong, the Population Health Survey (PHS) 2020-22 conducted by the Department of Health (DH) showed that the prevalence of hypertension among persons aged 15–84 was 29.5% (Figure 1). The prevalence of hypertension increased steadily with age from 4.9% among those aged 15–24 to 57.4% among those aged 65–84⁸.

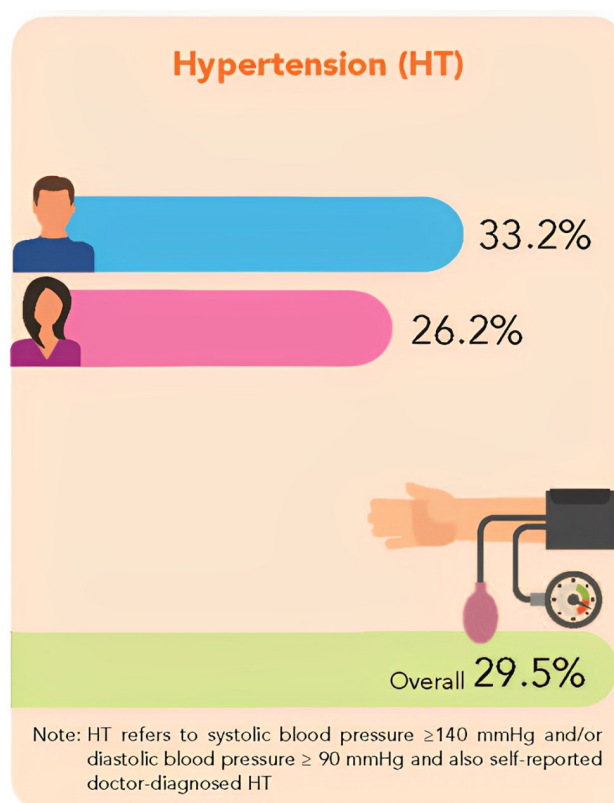


Figure 1: Prevalence of hypertension among persons aged 15–84 in 2020-22

Hypertension is known as a “silent killer”

Hypertension often has no overt symptoms in the early stages. Very high blood pressure may cause headaches, blurred vision, nose bleeding, facial flushing, dizziness, chest pain and other symptoms^{1, 2}. Unless their blood pressure is regularly measured, many people go undiagnosed until complication develops, such as heart attack, stroke or kidney disease (Figure 2). That is why hypertension is considered a “silent killer”^{9, 10}.

In 2021, high systolic blood pressure caused about 10.9 million deaths worldwide⁷, in which over 90% of deaths were attributed to cardiovascular diseases (particularly ischaemic heart disease and stroke)^{11, 12} and about 8% were attributed to kidney disease¹¹. In 2023, there were 1 097 registered deaths attributed to hypertensive heart disease in Hong Kong, 46 deaths due to hypertensive renal disease and another 12 deaths due to hypertensive heart and renal disease¹³.

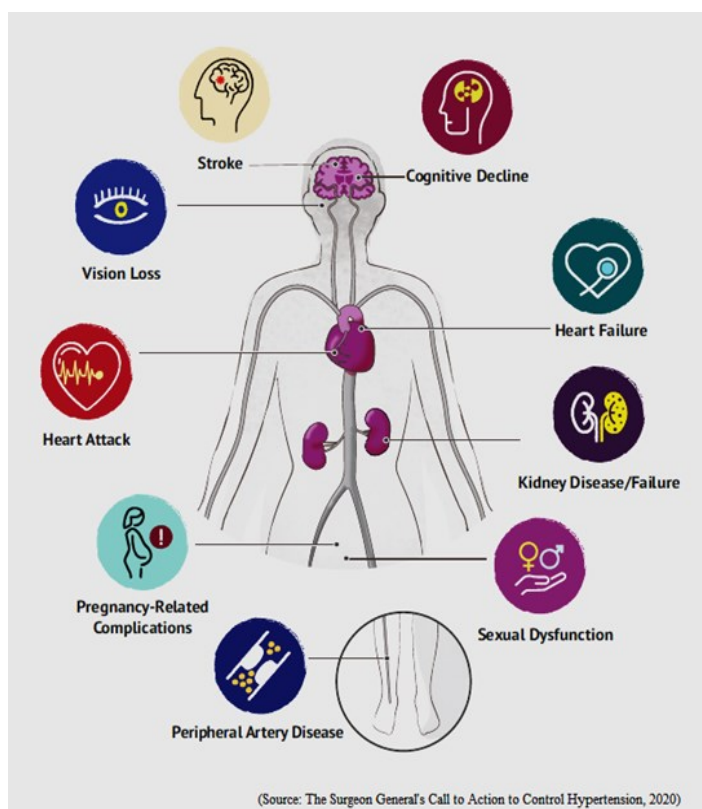
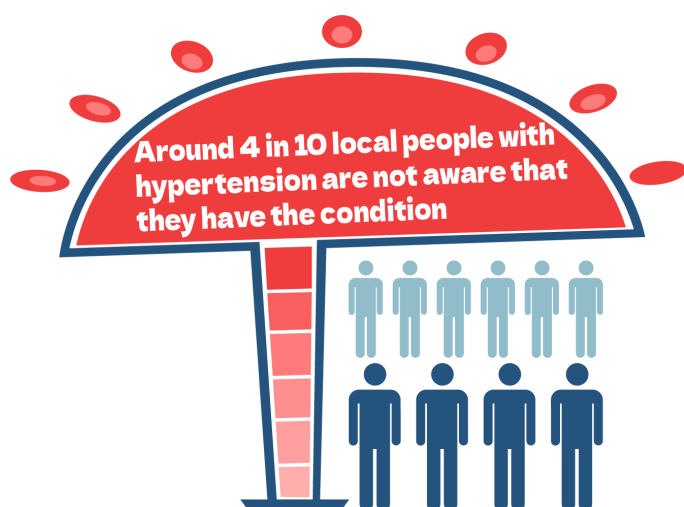


Figure 2: Health problems caused by hypertension

Many people with hypertension are unaware that they have the condition



Worldwide, an estimated 46% of adults with hypertension are unaware that they have the condition^{2, 9}. Similarly, many people in Hong Kong have hypertension but are unaware of their condition.

Among persons aged 15–84 with hypertension, the PHS 2020-22 revealed that 41% of them (44.3% for males and 37.4% for females) were not aware of having raised blood pressure until attending the health examination provided under the survey⁸.

Certain behaviours and lifestyles can put individuals at a higher risk for developing high blood pressure

Many factors contribute to the development of hypertension. While some risk factors are not modifiable, behavioural and lifestyle-related risk factors are modifiable (Figure 3)^{2, 14}. Among the local population, unhealthy behaviours known to increase hypertension risk are common.

Surveys conducted by the DH showed that over fourth-fifths (83.9%) of persons aged 15–84 had unhealthy eating habits with salt intake in excess of the WHO recommended limit of less than 5 grams a day; over half of them were overweight (22.0%) or obese (32.6%) with a body mass index (BMI) greater than or equal to 23.0⁸. In addition, 14.8% of persons aged 18 or above failed to attain the level of aerobic physical activity recommended by WHO and 9.5% of persons aged 15 or above drank alcohol regularly (i.e. drank at least once a week), including 2.2% reported daily drinking¹⁵. The Thematic Household Survey conducted by the Census and Statistics Department reported that 9.1% of persons aged 15 or above were daily conventional cigarette smokers¹⁶.



Figure 3: Major risk factors of hypertension

Healthy living can prevent and help offsetting the genetic risk of hypertension

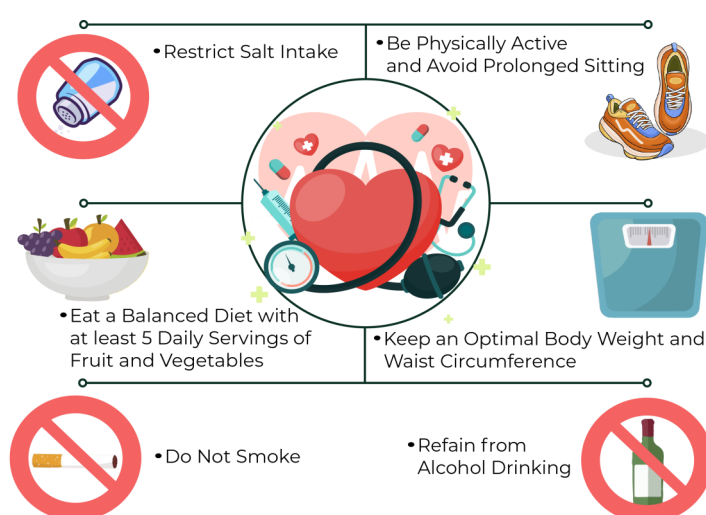


Figure 4: Key actions to reduce hypertension risk

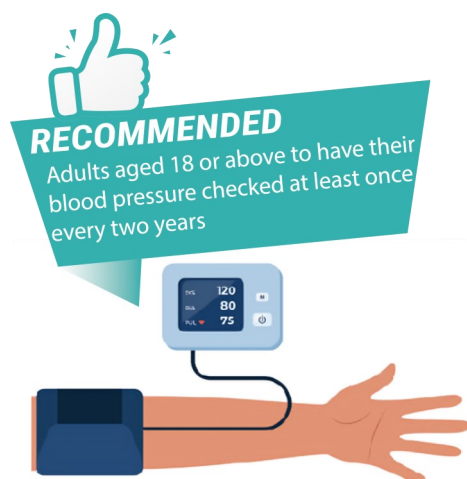
For more information about healthy living, please visit the Change for Health website at www.change4health.gov.hk.

For recommendations on salt intake, please visit www.chp.gov.hk/files/her/less_salt_for_better_health_infographic.pdf.

Although it is not possible to alter the genetic makeup, it is possible to modify lifestyle (Figure 4) for reducing the risk of developing hypertension¹⁷. For individual with genetic predisposition to raised blood pressure, adopting a healthy lifestyle would have beneficial effects on lowering blood pressure and cardiovascular risk. A British study involving over 277 000 individuals aged between 40 and 69 reported that people with a favourable in comparison with an unfavourable lifestyle had 4.9, 4.3 and 4.1 mmHg lower systolic blood pressure in low, middle, and high genetic risk groups, respectively. Healthy compared with unhealthy lifestyle showed a 30–33% lower risk of cardiovascular disease across the low, middle, and high genetic risk groups¹⁸.

Having regular blood pressure checks allows early detection of hypertension

While adopting a healthy lifestyle is essential for the prevention and control of hypertension, having regular blood pressure checks allows early detection and treatment of hypertension if indicated. The longer individuals live with undiagnosed and inadequately treated hypertension, the worse the health outcomes are likely to be.



The Hong Kong Reference Framework for Hypertension Care for Adults in Primary Care Settings recommends adults aged 18 or above to have their blood pressure checked at least once every two years. More frequent intervals may be required according to the blood pressure level, individual's age, overall cardiovascular risk profile, and doctor's advice⁵.

According to the PHS 2020-22, however, only 52.3% of persons aged 18 or above reported that they had their blood pressure checked within two years (Figure 5)⁸.

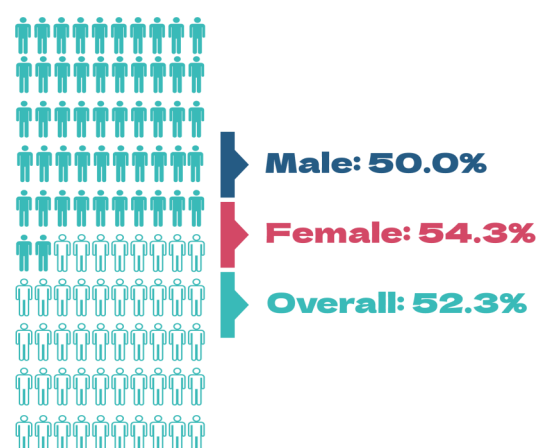


Figure 5: Proportion of persons aged 18 or above reported that they had blood pressure checked within two years

The Government has scaled-up efforts to prevent, detect and control hypertension



The risk of hypertension rises with age, and early detection of hypertension and intervention is crucial for reducing the risk of developing related complications. The Government has launched the Chronic Disease Co-Care Pilot Scheme (CDCC Pilot Scheme) to subsidise Hong Kong residents aged 45 and above with no known medical history of hypertension or diabetes mellitus to undergo screening, and to receive consultation services on a co-payment basis in the private healthcare sector through pairing with a family doctor of their choice, with a view to encouraging citizens to gain a better understanding of their own health status as early as possible, thereby achieving the goal of "early prevention, early identification and early treatment". For more details, please visit the dedicated website of the CDCC Pilot Scheme of the Health Bureau (www.primaryhealthcare.gov.hk/cdcc) .

The DH will continue step up efforts to increase public awareness about the importance of healthy living in the prevention and control of hypertension, as well as working in close partnership with various stakeholders to foster a healthy-enhancing environment. Members of the public are urged to maintain vigilance against hypertension, choosing to live in healthy ways for reducing the risk of developing hypertension.

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World Hypertension Day

17 May

World Hypertension Day aims to promote public awareness of hypertension and the need to check and control their blood pressure. For 2025, the theme for World Hypertension Day is **Measure Your Blood Pressure Accurately, Control It, Live Longer!** For more information about the campaign, please visit the thematic website at whleague.org/about-us/world-hypertension-day.

Having regular blood pressure checks allow early detection of hypertension. The Hong Kong Reference Framework for Hypertension Care for Adults in Primary Care Settings (which is accessible at www.healthbureau.gov.hk) recommends adults aged 18 or above to have regular blood pressure checked at least every two years. More frequent intervals may be required according to the blood pressure level, individuals' age, overall cardiovascular risk profile, and doctor advice.

Other than having regular blood pressure checks, members of the public are encouraged to lead a healthy lifestyle for the prevention and control of hypertension. Key actions include cutting back on salt and eating a balanced diet; being physically active; maintaining an optimal body weight and waist circumference; avoiding smoke; and refraining from alcohol drinking. For more information about healthy living, please visit the Change for Health website of DH: www.change4health.gov.hk.

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