

Non-Communicable Diseases Watch



衛生防護中心
Centre for Health Protection



衛生署
Department of Health

MAY
2026



Control Hypertension Together

Keep Obesity At Bay • Check Blood Pressure Regularly

Key Messages

- Obesity and hypertension are a dangerous duo because they amplify each other's effects, significantly increasing the risk of cardiovascular diseases, metabolic syndrome and chronic kidney disease. Healthy lifestyle could cut hypertension risk by about 16% in people with obesity, a 5–10% weight loss can lower systolic blood pressure by about 3 mmHg in those with hypertension.
- Overweight and obesity are prevalent among local people, yet many misjudge their weight status. Hypertension is also common, but a considerable number of people remain unaware that they have the condition.
- Regular weighing and blood pressure checks help individuals stay aware and gain better control over their personal health. Adults should measure their blood pressure at least once every two years.

Obesity and Hypertension as a Dangerous Duo that Threatens Global Health

Obesity and hypertension are major public health challenges that amplify each other's effects, significantly increasing the risk of cardiovascular diseases¹, metabolic syndrome² and chronic kidney disease³. While obesity alone raises the risk of heart failure by 60%, and hypertension alone by 1.1-fold, having both conditions increases the relative risk by 2-fold⁴. From 1990 to 2021, mortality and disability-adjusted life years (DALYs, the number of years lost due to ill-health, disability, or premature death) due to hypertensive heart disease attributable to high body mass index (BMI) increased 2-fold globally⁵.

Since 65–75% of primary hypertension cases stem from obesity⁶, maintaining a healthy body weight is crucial to lowering blood pressure and reducing related health risks. This article examines the association between excess body fat and elevated blood pressure, reviews the local situation and highlights the importance of maintaining an optimal body weight to lower the risk of hypertension.

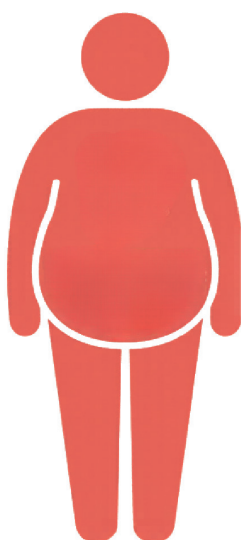
More Body Fat—Higher Blood Pressure

Obesity can lead to hypertension due to increased salt and water retention, increased blood volume and constricted blood vessels. Excess fat also presses on the kidneys and overstimulates the nerves and hormones that regulate blood pressure. Factors like insulin resistance, high leptin levels and chronic inflammation further disrupt normal blood pressure control⁶⁻⁸.

Body mass index (BMI), waist circumference and waist-to-hip ratio are indicators used to assess overall obesity and central obesity, respectively. For Chinese adults in Hong Kong, the ideal BMI is between 18.5 and below 23. For men, the ideal waist circumference is below 90 centimetres (cm), with a waist-to-hip ratio below 0.9.

For women, the ideal waist circumference is below 80 cm, with a waist-to-hip ratio below 0.85⁹. Studies show that individuals with a higher BMI, larger waist size and greater waist-to-hip ratio have a 64%, 70% and 86% increased risk of hypertension, respectively¹⁰. Besides, the risk rises progressively with higher levels of obesity¹¹. Of note, even if two individuals have the same BMI, their body fat percentage, muscle mass and metabolic risk may still differ significantly. Healthy lifestyle could cut hypertension risk by about 16% in people with obesity¹² and a 5–10% weight loss can lower systolic blood pressure by about 3 mmHg in those with hypertension¹³. Nevertheless, breaking the obesity–hypertension connection requires the maintenance of a healthy body weight.

Obesity and Risk of Hypertension¹¹



General Obesity



Every 1 kg/m²
increase in BMI:

Risk ↑ 10%



Every 5 kg/m²
increase in BMI:

Risk ↑ 64%

Central Obesity



Each 10 cm increase
in waist circumference:

Risk ↑ 25%



Each 0.1-unit increase
in waist-to-hip ratio:

Risk ↑ 27%

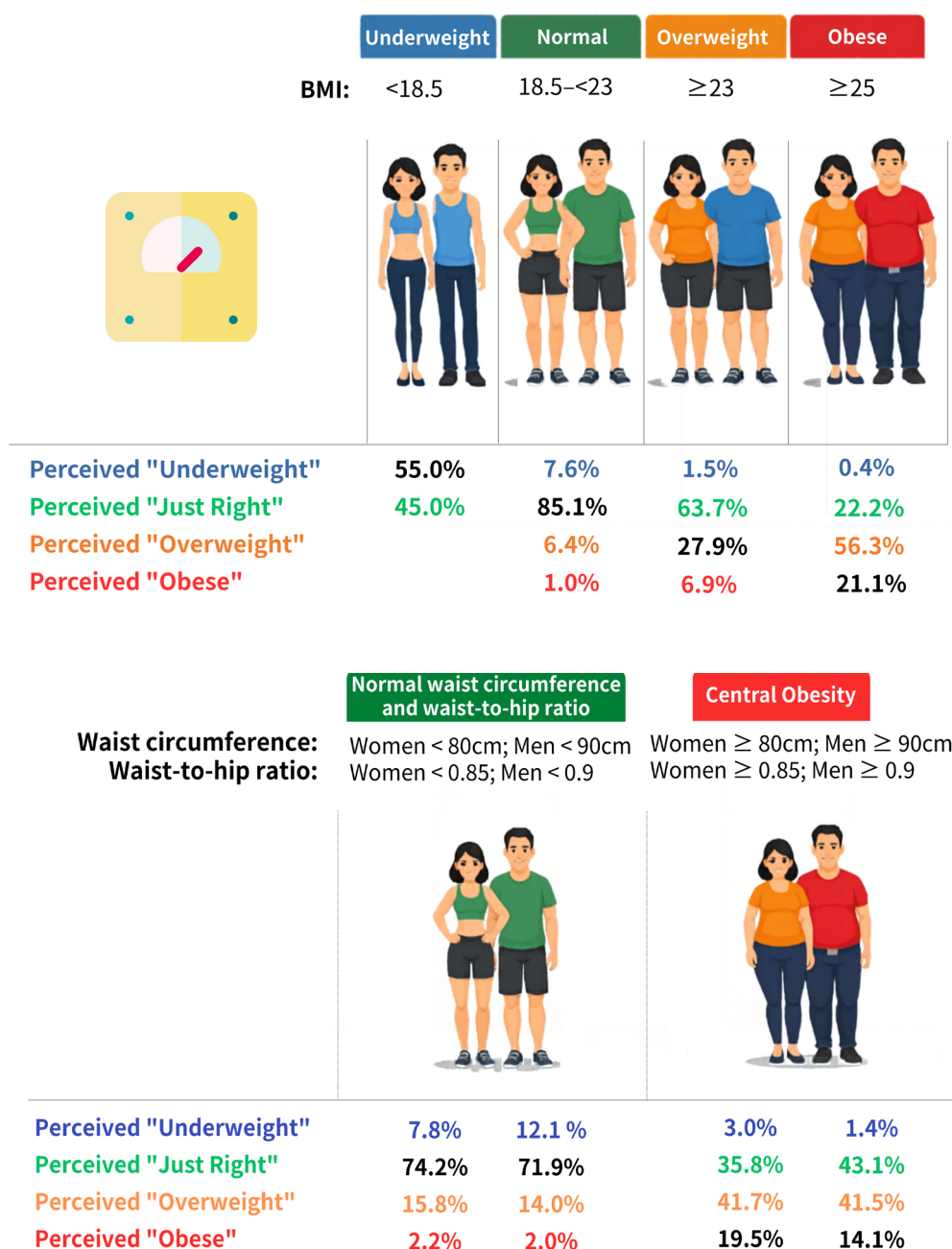
Weight Perception and Hypertension Awareness Gaps

Overweight and Obesity Are Prevalent But Many People Misjudge Their Weight Status

Misjudging one's weight status can have serious consequences. Whether underestimated or overestimated, it may increase stress and lead to unhealthy behaviors. As revealed by the Population Health Survey 2020-22 conducted by the Department of Health (DH), about half of adults were overweight or obese (BMI ≥ 23); over one-third had central obesity (waist circumference ≥ 90 cm or waist-to-hip ratio ≥ 0.9 for men; waist circumference ≥ 80 cm or waist-to-hip ratio ≥ 0.85 for women)¹⁴.

The survey also found that nearly four-fifths of obese adults underestimated their weight status, perceiving themselves as "overweight" or "about the right weight"; close to two-thirds of overweight adults perceived as having the right weight. Similarly, 84.6% of men with central obesity perceived themselves as "just right" or "overweight", 77.5% of women with central obesity reported the same¹⁴.

Weight Perception among Adults in Hong Kong¹⁴



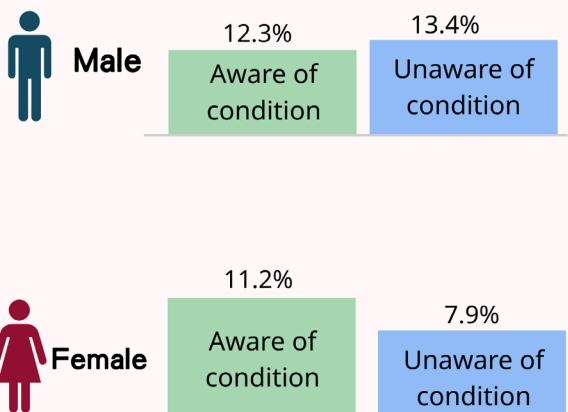
Hypertension Is Common But Many Remain Unaware

Hypertension often presents no symptom in its early stages, earning it the name 'silent killer.' Failure to recognise the presence of high blood pressure may inadvertently increase the risk of heart disease, stroke, and kidney disease. Among persons aged 18–84, the Population Health Survey 2020–22 revealed that 30.0% had hypertension, including 12.4% of undiagnosed cases¹⁴.

Prevalence of hypertension among Adults in Hong Kong¹⁴

● Self-reported doctor-diagnosed hypertension (aware of condition)
 ● Undiagnosed hypertension (unaware of condition)

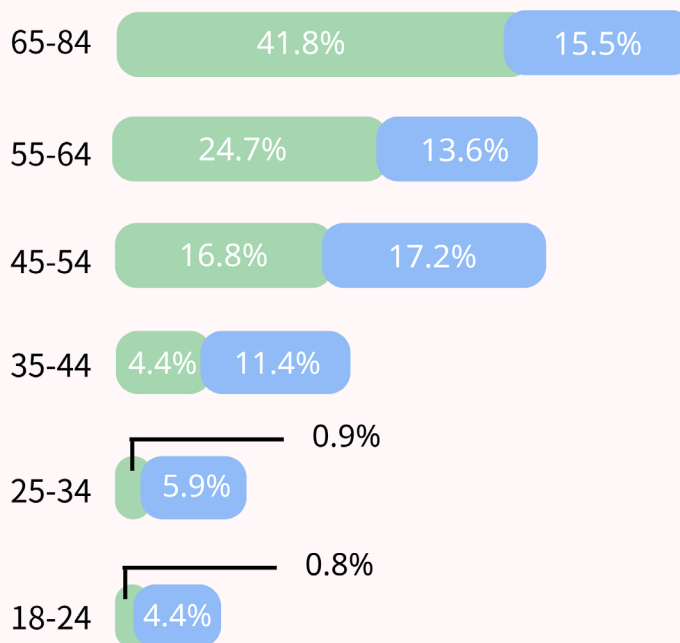
By Gender



Among males, 25.7% had hypertension, including 13.4% of undiagnosed cases.
Among 19.1% of females with hypertension, 7.9% were unaware that they had the disease.



By Age



The prevalence of undiagnosed hypertension was higher among persons aged 45–54 (17.2%).

Note: Undiagnosed hypertension—No self-reported history of doctor-diagnosed hypertension, but the condition was identified by physical measurement (systolic blood pressure ≥ 140 mmHg and/or diastolic blood pressure ≥ 90 mmHg)
 Source: Population Health Survey 2020–22

Healthy Lifestyle Reduces the Risks of Obesity and Hypertension

Adopting a healthy lifestyle early in life is crucial in preventing obesity and hypertension. Key actions include eating a balanced diet, staying physically active, as well as refraining from smoking and drinking. Calorie needs vary by sex, age, health, body size and activity level, but eating well and cutting down calorie intake can help reduce body fat healthily. For example, for an adult who requires about 2 400 kilocalories (kcal) per day to maintain energy balance, reducing intake by 500 kcal daily creates a weekly deficit of 3 500 kcal, which corresponds to approximately 0.5 kg of fat loss. Furthermore, a meta-analysis found that each 30 minutes of aerobic exercise per week for at least

8 weeks was associated with reductions in body weight (by 0.5 kg), waist circumference (by 0.6 cm) and body fat percentage (by 0.4%)¹⁵.

Sustainable weight loss relies on long-term lifestyle changes. There is no 'magic bullet' or quick fix solution. Crash diets or taking weight-loss medications without a doctor's prescription may claim fast results, but often harm health and lead to rebound weight gain. Obese individuals or those intending to lose weight can seek guidance from healthcare professionals to ensure safe and customised strategies for effective weight management.

Choose Healthy Food

- ✓ Wholegrains
- ✓ Lean meat
- ✓ Water or sugarfree beverages

- ✗ Foods high in fat, salt or sugar
- ✗ Preserved or processed foods
- ✗ Fat meat
- ✗ Soft drinks or sugary beverages

Aerobic Physical Activity: Basic Weekly Goal

Do at least 150–300 minutes of moderate-intensity aerobic physical activity (e.g. brisk walking, cycling); or at least 75–150 minutes of vigorous-intensity aerobic physical activity (e.g. running, hiking); or an equivalent amount throughout the week, for substantial health benefits

150–300 minutes moderate-intensity ✓

✓ **75–150 minutes vigorous-intensity**

or a combination approach

Stay Healthy with Periodic Weighing

Self weighing is a simple, affordable and effective approach to weight management by increasing awareness of one's current weight and trends. Frequency usually depends on personal goals and preferences: for active weight loss, daily or weekly weighing offers quick feedback and reinforces healthy habits; for maintenance, weekly or monthly weighing is usually enough to track progress and avoid unwanted gain^{16,17}.

Members of the public can easily check their weight status using the BMI Calculator. They can also find more information about weight management, along with practical guidance on healthy living, by visiting the Weight Management theme page on the DH's Change4Health website.

BMI Calculator QR code



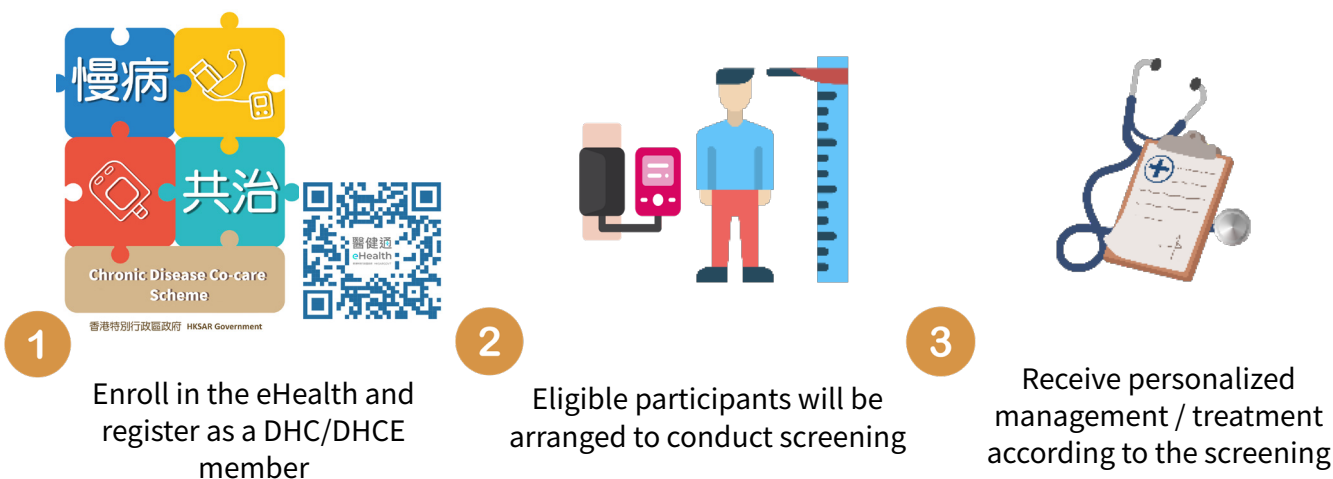
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Protect Health with Regular Blood Pressure Checks

Regular blood pressure checks help individuals stay aware and gain better control over their personal health. Because hypertension often has no overt symptoms in the early stages, many live with it unknowingly. Routine monitoring of blood pressure supports early detection and prevents complications. Adults aged 18 or above are recommended to have their blood pressure checked regularly¹⁸. However, the Population Health Survey 2020-22 found that only 52.3% of persons aged 18 or above had their blood pressure checked within the past two years¹⁴, indicating that many may miss opportunities to improve health through simple lifestyle changes.

The Government has launched the Chronic Disease Co-care Scheme (CDCC Scheme), subsidising Hong Kong residents aged 45 and above with no known medical history of hypertension or diabetes to receive hypertension along with diabetes and hyperlipidaemia screening services in the private healthcare market. Eligible individuals are strongly encouraged to participate in the CDCC Scheme. For more details, please visit the thematic website at www.primaryhealthcare.gov.hk. Individuals can also consult their family doctors about weight management and relevant screening recommendations.

How can I enrol in the CDCC Scheme?



Adults should measure their blood pressure at least once every two years.

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World Hypertension Day

Raised blood pressure is the biggest single contributing risk factor to global health. World Hypertension Day is aimed at raising attention on the importance of better hypertension control.

For 2026, the theme is "**Controlling Hypertension Together: Check your blood pressure regularly, defeat the silent killer**". For more information about the campaign, please visit the thematic website at www.whleague.org/about-us/world-hypertension-day.

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



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