



衛生防護中心  
Centre for Health Protection

### Healthy Tips

Hypertension often has no early symptoms, so regular check-ups are important.

Leading a healthy life-style is the best way to prevent hypertension. This includes maintaining an optimal body weight, exercising regularly, having a balanced and low salt diet, no smoking and drinking in moderation, if at all.

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衛生署  
Department of Health

# Non-Communicable Diseases Aware

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## Are You Aware That ....

High blood pressure (or hypertension) is a very common health problem. The World Health Organization (WHO) defines hypertension in adults as consistently having systolic blood pressure of 140 mmHg or above, or diastolic pressure of 90 mmHg or above, or both. In most countries, up to 30% of adults suffer from high blood pressure.<sup>1</sup> Worldwide, high blood pressure is estimated to cause 7.1 million deaths, about 13% of the total.<sup>2</sup>

The Population Health Survey 2003/04, which face-to-face interviewed and measured blood pressure in over 7 000 men and women aged 15 and above, reported that 12.1% had doctor- or health professional-diagnosed hypertension and another 15.1% were measured to have systolic or diastolic blood pressure readings above the WHO recommended cut-off points, giving an overall prevalence of 27.2%. The overall prevalence rose progressively with age. In men, the prevalence of hypertension increased from 7.7% at age 15-24 to 67.5% at age 65 and above. In women, the corresponding prevalences were 2.9% and 69.9% respectively (Table 1). Of note, the proportion of "undiagnosed" hypertensives increased steadily with age, from 4.5% among people in the 15-24 age group to 30.5% among people aged 65 and above.<sup>3</sup>

The continual mechanical forces associated with elevations in blood pressure can cause stroke and other organ damage, such as in the heart and kidneys, and eventually death. In 2003, hypertensive diseases accounted for 710 deaths (316 for males and 394 for females), giving a crude death rate of 10.4 per 100 000 population (9.6 per 100 000 male population and 11.2 per 100 000 female population).<sup>4</sup>

In terms of hospital admissions in 2003, hypertensive diseases accounted for some 6 700 (2 900 for males and 3 800 for females) in-patient discharges and deaths in Hospital Authority (HA) hospitals, giving an in-patient discharges and deaths rate of 99.2 per 100 000 population (88.8 for males and 108.9 for females).<sup>5</sup> Of note, many hypertensive patients were also treated in public out-patient clinics and by private medical practitioners.

Table 1: Number and proportion of people aged 15 and above having diagnosed hypertension or blood pressure above WHO recommended cut-off points by measurement, by sex and age group

Age group	Male		Female		Total	
	Number ('000)	Proportion	Number ('000)	Proportion	Number ('000)	Proportion
15-24	33.9	7.7%	13.1	2.9%	47.1	5.2%
25-34	42.6	10.6%	27.7	5.3%	70.3	7.6%
35-44	120.7	22.3%	104.3	13.7%	225.0	17.3%
45-54	160.8	32.8%	193.9	29.9%	354.7	31.1%
55-64	158.0	50.1%	149.8	46.7%	307.7	48.4%
65 and above	258.2	67.5%	284.3	69.9%	542.5	68.8%
Total	774.1	30.1%	773.0	24.9%	1 547.2	27.2%

Source: Population Health Survey, 2003/04 (provisional data). Department of Health

### References

1. Mackay J and Mensah G (Eds). The Atlas of Heart Disease and Stroke. World Health Organization, 2004.
2. The World Health Report 2002: Reducing risks, promoting healthy life. World Health Organization, 2002.
3. Population Health Survey 2003/04 (provisional data). Department of Health.
4. Mortality statistics, 2003 (provisional data). Department of Health, Census and Statistics Department.
5. In-patient statistics, 2003. Hospital Authority.

♥ The World Hypertension League has designated May 14, 2005 as World Hypertension Day to underscore the health consequences of hypertension, and encourage people to have their blood pressure measured and, if it is elevated, to do something about it ♥

## Get the Facts about Hypertension



Untreated hypertension is a silent killer. In its early stage and often at an advanced stage, it has no symptoms or warning signs. Many people who have the condition may not realize it until the blood pressure is so high as to cause stroke or damage to vital organs like the heart, kidneys and eyes. By then, certain symptoms such as dizziness, severe headache, chest pain, difficulty in breathing or blurred vision may appear.

The causes of hypertension are not well-understood. In 90-95% of patients with hypertension, no specific cause can be identified. However, genetic and lifestyle factors may play a role in its development (see Box 1). For a small proportion of hypertensive patients, the cause of hypertension can be traced back to the use of certain drugs or exogenous substances (for example, certain hormones, corticosteroids and cocaine), or to specific disorders of the kidneys (such as inflammation, cancer and polycystic diseases) and endocrine glands (for instance, thyroid disorders and disease of the adrenal cortex).<sup>1</sup> Blood pressure may return to normal if the underlying diseases are treated.

### Box 1: Factors associated with high blood pressure

- ◆ Family history of hypertension
- ◆ Overweight and obesity
- ◆ Lack of physical activity
- ◆ Too much salt in the diet
- ◆ Too much alcohol consumption
- ◆ Smoking
- ◆ Stress
- ◆ Older age

As hypertension has no early symptoms, the only way to find out is to have it measured regularly. Although this is a relatively simple procedure, it is important that the blood pressure should be measured properly. Be aware that blood pressure does not stay the same all the time. It varies with emotion, physical activity and other factors. Blood pressure tends to be higher when the individual is agitated, excited or angry and after smoking, exertion or consuming certain foods or drinks that contain caffeine or ethanol. Before blood pressure is taken, thus, the individual should be seated for several minutes and refrain from smoking and drinking coffee, tea or alcohol 30 minutes prior to measurement.<sup>1-3</sup> Other than having blood pressure checked regularly as to detect the problem early, hypertension can be prevented through lifestyle changes (see Box 2).

Hypertension can be successfully controlled with appropriate lifestyle adjustment (all the preventive tips apply) and medications when indicated. When taking anti-hypertensive drugs, it is very important to take them on time according to doctor's prescription and have regularly follow-up with a doctor. Do not alter the dose or stop taking it unless advised to do so by the doctor. Good control of hypertension is crucial in preventing or delaying complications. Always consult a doctor for any discomfort after taking the medication or any concerns regarding the treatment regime.

### Box 2: Tips for preventing hypertension<sup>1,3</sup>

**Maintaining an optimal weight** – People who are overweight will be 2-6 times likely to develop hypertension than those who have an optimal body weight.

**Undertaking regular physical activity** – People who are physically active have 20-50% lower risk of developing hypertension than those who are not active. Having at least 30 minutes of moderate physical activity in all or most days of the week can help lowering blood pressure.

**Eating a well-balanced diet and reducing salt intake** – A diet that is rich in fruits, vegetables and whole grains and contains decreased amount of fat and cholesterol can lower blood pressure in people with hypertension and reduce the risk of developing high blood pressure among those without hypertension. In many cases, hypertension is either caused or worsened by excessive salt intake in the diet. Salt is sodium chloride, which by weight is approximately 40% sodium and 60% chloride. An average intake below 5 grams of salt (about 1 teaspoon), or equivalent to 2 gram of sodium, a day should be the aim. Be aware that canned or processed and other packaged snack foods are usually high in salt content. Check the sodium content and portion size information on food labels before buying or using such products. Avoid eating salted foods such as salted eggs, salted fish, salted vegetables and fermented black beans which also contain other additives with salt. Avoid added salt such as soy sauce and oyster sauce. Fresh vegetables have low sodium content and it would be wise to avoid adding salt during preparation.

**Drinking alcohol in moderation, if at all** – For healthy men, in general, "low" risk drinking is no more than 3-4 standard drinks per day; less than 21 standard drinks a week and at least 2 alcohol-free days per week. For non-pregnant healthy women, "low" risk drinking is usually no more than 1-2 standard drinks a day, less than 14 standard drinks a week and at least 2 alcohol-free days per week.

**No smoking** – Although smoking is not causally related to hypertension, it is a major cardiovascular risk factor that the incidence of stroke and coronary heart disease in hypertensive patients who smoke is 2-3 times greater than that in non-smoking patients with comparable blood pressure.

#### References

1. Hypertension control. WHO Technical Report Series No. 862. Geneva: World Health Organization, 1996.
2. Understanding hypertension. New York: American Society of Hypertension, Inc., 2004.
3. Measuring your blood pressure. World Hypertension League, 2004.

### \* \* \* \* \* News Bites \* \* \* \* \*

Self-monitoring of blood pressure allows patients to take some responsibility for their own care. But a local study has reported that automated blood pressure devices, as used by 73 Hong Kong hypertensive patients aged between 40 and 70 years, were not reliable. The agreement between the mercury standard and the automated devices was poor, especially for the diastolic blood pressure. As a means of screening for blood pressure >140/90 mmHg, the sensitivity of the automated devices was 81% and the specificity was 80%. Besides, 85% of patients said they had had no training to how to operate their machines and only 63% had read the user's manual. The authors suggested whenever hypertension is diagnosed, health care professionals should discuss the advantages and limitations of self-monitoring with their patients. Those patients who decide to use home monitors should be properly trained in the techniques to ensure correct use. (Source: Wong CW et al. Reliability of automated blood pressure devices used by hypertensive patients. J R Soc Med 2005; 98:111-3).

### \* \* \* \* \* Event Calendar \* \* \* \* \*

To further promote and facilitate a smoke-free environment, the Central Health Education Unit (CHEU) of Department of Health will arrange a series of roving exhibitions at shopping malls. These roving exhibitions are built upon the theme of "Smoking Hurts" and aim at publicizing the hazards of active and second-hand smoking. For more information, please visit CHEU's website at [www.cheu.gov.hk](http://www.cheu.gov.hk)

Date	Exhibition Venue
13-16 May 2005	Atrium, 2/F Kai Tin Shopping Centre, Lam Tin
13-17 May 2005	Level 2, Ma On Shan Plaza, Shatin