

Do you know about Cardiovascular and Cerebrovascular Diseases?



Occupational Safety and Health Branch
Labour Department



Safety at work

Introduction

Cardiovascular diseases and cerebrovascular diseases

are common causes of death in Hong Kong. Personal factors such as pre-existing diseases, lifestyle and mental stress may increase the likelihood of developing cardiovascular and cerebrovascular diseases and may even lead to their onset at work. Most of these personal risk factors can be avoided or controlled through lifestyle changes and other appropriate measures.

This booklet aims to increase the awareness of employers and employees on cardiovascular and cerebrovascular diseases, introduce them to healthy lifestyle habits and provide tips on protecting their “heart” and “brain” in the workplace so that they can work together to promote the health of employees and enhance the productivity of organisations.

What are cardiovascular and cerebrovascular diseases?

Cardiovascular diseases

Cardiovascular diseases are a group of disorders of the heart and blood vessels. Coronary heart disease is a common type of cardiovascular disease, and occurs when cholesterol layers deposit on the inner walls of coronary arteries and narrow the lumens of the arteries. The process reduces blood supply to the cardiac muscle and causes the symptoms of chest pain known as angina pectoris. If the condition is serious, the cardiac muscle will become necrotic due to the lack of oxygen, affecting the cardiac function and endangering the life of the patient.



Common symptoms of coronary heart disease include:

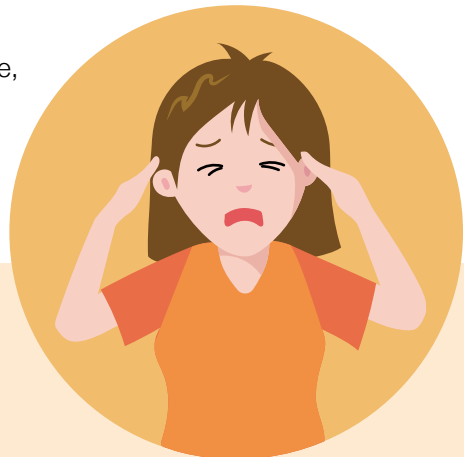
- Central crushing chest pain occurs during physical activity and the pain can radiate to the arms, shoulders, neck and jaw, though it will get better after rest.
- When heart attack occurs, the severity and duration of angina pectoris will increase.
- Other possible symptoms include arrhythmia, dizziness, sweating, nausea and limb weakness.

Cerebrovascular diseases

Cerebrovascular diseases generally refer to a type of disease caused by problems with the blood vessels that supply blood to the brain. When a cerebral artery bursts or is blocked by a blood clot, brain tissues will be damaged due to the lack of oxygen and nutrients carried by the blood. It can be life-threatening in severe cases. The most common cerebrovascular disease is stroke.

People with stroke usually do not have any symptoms before its onset. The symptoms of stroke depend on the location and extent of brain damage. Common symptoms include:

- Paralysis, numbness or weakness of the face, body or limbs (especially over half of the face, one side of the body or one limb)
- Unsteadiness and fall
- Slurred speech, drooling of saliva, difficulty in swallowing, deviated angle of mouth
- Loss of visual field, double vision
- Sudden onset of severe headache, persistent dizziness
- Incontinence
- May lead to coma or death in severe cases



Major risk factors for cardiovascular and cerebrovascular diseases

Cardiovascular and cerebrovascular diseases can be caused by multiple modifiable and non-modifiable risk factors. These risk factors can act in combination to produce a synergistic effect on the risk of cardiovascular and cerebrovascular diseases. The risk of contracting cardiovascular and cerebrovascular diseases increases as the number of risk factors for an individual increases.

Modifiable risk factors

- Obesity
- Unhealthy eating habit
- Lack of physical activity
- Smoking
- Excessive drinking
- Chronic stress
- Hypertension
- Hyperlipidaemia
- Diabetes mellitus

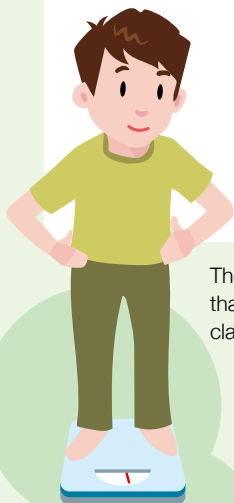
Non-modifiable risk factors

- Advancing age
- Male
- Hereditary or family history
- Underlying illnesses such as rheumatic heart disease or congenital abnormalities of brain vessels

Act together to protect the “heart” and “brain”

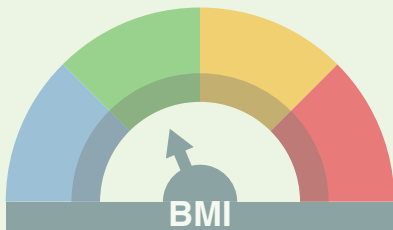
Maintain an optimum body weight and waist circumference

Obesity will increase the cardiopulmonary load, and excessive fat will deposit on the inner walls of blood vessels leading to hardening and blockage of the vessels. Body Mass Index (BMI) is used to assess whether an adult's weight is optimal and is calculated as follows:



$$\frac{\text{Weight (kg)}}{\text{Height (m)} \times \text{Height (m)}}$$

The optimal BMI for Asian adults is 18.5-22.9 kg/m². A BMI from 23.0 to less than 25.0 kg/m² is classified as overweight and a BMI of 25.0 kg/m² or above is classified as obese.



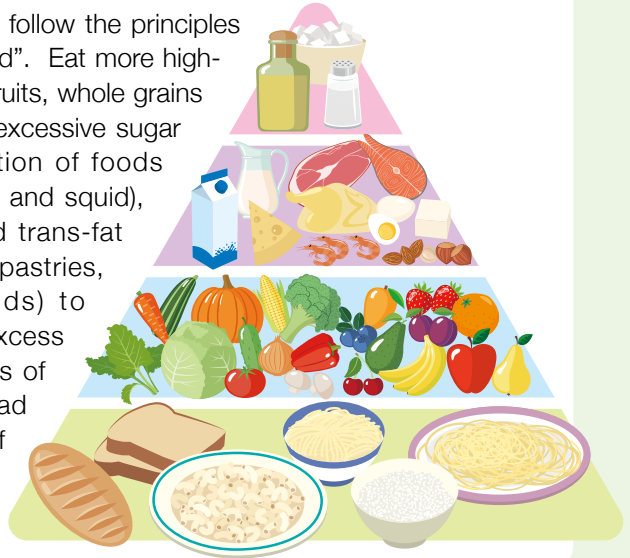
Waist circumference can reflect the degree of abdominal fat accumulation. For Asian adults, male waist circumference ≥ 90 cm and female waist circumference ≥ 80 cm are defined as central obesity.



In order to maintain an ideal body weight and waist circumference, it is necessary to adopt healthy eating and regular physical activity.

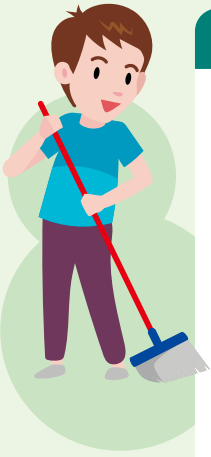
Adopt healthy eating

Maintain a balanced diet and follow the principles of the “Healthy Eating Pyramid”. Eat more high-fibre foods (e.g. vegetables, fruits, whole grains and dried beans) and avoid excessive sugar intake. Reduce consumption of foods high in cholesterol (e.g. offal and squid), saturated fat (e.g. lard) and trans-fat (e.g. margarine, packaged pastries, processed and fried foods) to prevent the deposition of excess cholesterol on the inner walls of blood vessels which can lead to hardening and blockage of the vessels.



Do regular physical activity

Do physical activity regularly to enhance cardiac function, prevent vascular ageing and increase myocardial blood circulation. Physical activities include planned exercises (e.g. fast walking and cycling) and non-exercise physical activities (e.g. walking stairs and doing housework) which can be done during work and leisure time. Regular exercise habits should be established step by step with gradually increasing frequency, intensity and duration of activities in order to reduce the chance of injury.



Quit smoking and avoid alcohol consumption

The nicotine in tobacco will increase the heart rate, narrow blood vessels and elevate blood pressure. Smoking will also increase the level of cholesterol in the blood, which is likely to increase the risk of contracting cardiovascular and cerebrovascular diseases.

Alcohol can affect many organs of the body, and long-term drinking can increase the risk of many diseases, such as obesity, hypertension, stroke and coronary heart disease.

For more health information on tobacco and alcohol, please consult your family doctor or visit the website of the Tobacco and Alcohol Control Office of the Department of Health at www.taco.gov.hk.



Manage Stress Properly

Stress may increase the risk of contracting cardiovascular diseases, as excessive stress not only raises the blood pressure but also increases the heart rate. With a positive attitude, stress can be coped with properly which in turn helps prevent cardiovascular diseases.

- Understand the sources of stress
- Enhance the ability to cope with work stress, such as improving communication skills, time management and interpersonal relationships
- Self-enhancement
- Positive thinking
- Stay happy
- Seek professional assistance when necessary



Have regular physical check-ups to control risk factors

Hypertension, hyperlipidaemia and diabetes will increase the risk of contracting cardiovascular and cerebrovascular diseases. Regular monitoring of blood pressure, blood lipids and blood sugar levels facilitates early detection of these chronic diseases for appropriate treatment and follow-up.

If hypertension, hyperlipidaemia or diabetes is diagnosed, the patient should follow the instructions of medical professionals, take medication regularly, monitor blood pressure/blood sugar levels, adopt a healthy lifestyle, and follow up as scheduled to effectively control the condition and reduce the risk of contracting cardiovascular and cerebrovascular diseases.



Employers and employees should pay concerted attention

To reduce the risk of contracting cardiovascular and cerebrovascular diseases, employees need to actively live a healthy lifestyle, while employers can take positive actions to establish a healthy working environment and incorporate a healthy lifestyle into the workplace in order to promote the health of employees and enhance the productivity and competitiveness of the organisation.

Promote healthy eating

For example:

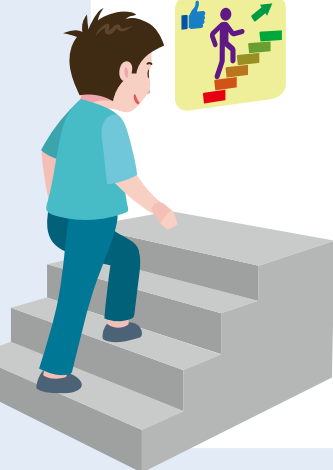
- Provide healthy drinks and refreshments in the pantry for employees to choose from, such as water, sugar-free or low-sugar drinks, dried fruits without added sugar, fruits and dried nuts
- Choose light dishes with fruits and vegetables as the main ingredients for business meals or staff banquets



Promote physical activity

For example:

- Indicate the location of stairs and encourage taking the stairs
- Provide rest time at work for staff to do physical activity such as stretching
- Make space available for staff to do physical activity during lunch time or rest time
- Organise interest groups related to physical activity, such as football teams and running teams



Manage work stress properly and adopt “employee-oriented” good people management measures

For example:

- Provide a safe and healthy working environment
- Provide adequate resources and training, including those on work stress awareness and management
- Arrange work properly, improve or simplify work processes, provide suitable rest time
- Delineate the roles and responsibilities of staff clearly, give feedback and praise their performance appropriately
- Improve communication mechanisms to better understand employees’ personal needs and encourage their involvement



Participate actively

The Department of Health, the Labour Department and the Occupational Safety and Health Council have launched the “Joyful@Healthy Workplace” programme and implemented the “Mental Health Workplace Charter” with the aim to promote healthy eating, physical activity and mental well-being at the workplace to assist employers and employees in creating a joyful and healthy working environment.

“Joyful@Healthy Workplace” website:
www.joyfulhealthyworkplace.hk

“Mental Health Workplace Charter” website:
mentalhealthcharter.hk

Enquiries

If you wish to enquire about this booklet or other occupational safety and health (OSH) matters, please contact the Occupational Safety and Health Branch of the Labour Department:

Tel: 2852 4041 or
2559 2297 (auto-recording service available outside office hours)

Fax: 2581 2049

Email: enquiry@labour.gov.hk

- Information on the services offered by the Labour Department and on major labour legislation is also available on our website at www.labour.gov.hk.
- For details on the services offered by the Occupational Safety and Health Council, please call 2739 9000 or browse the website at www.oshc.org.hk.

Occupational Health Clinics of the Labour Department

Any worker who may have contracted work-related illnesses can call or visit the Occupational Health Clinics for appointment booking. Doctor's referral is not required.

- Kwun Tong Occupational Health Clinic Tel: 2343 7133
- Fanling Occupational Health Clinic Tel: 3543 5701

Complaints

If you have any complaint about unsafe operations or environments at workplaces, please call the Labour Department's OSH complaint hotline at 2542 2172 or fill in and submit an online OSH complaint form on our website. All complaints will be treated in the strictest confidence.



Online OSH complaint Form

This booklet is issued free of charge and can be obtained from offices of the Occupational Health Service of the Labour Department. It can also be downloaded from the Labour Department's website at www.labour.gov.hk. For enquiries about the addresses and telephone numbers of the offices, please visit the Labour Department's website or call 2852 4041.

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