Work-related disease series

Lower Limb Varicose Vein

Normal vein
- Normal venous valve
- Venous wall

Varicose vein
- Defective venous valve
- Varicose vein

Blood flow direction:
- Normal vein
- Varicose vein
According to the International Labour Organization, the relationship between work and disease can be classified into the following three categories:

1. **Occupational diseases** - have specific or strong relationship to the exposure to physical, chemical, biological or psychosocial factors in the workplace. These factors in the work environment are predominant and essential in the causation of the diseases, for example, silicosis, asbestosis, occupational deafness, etc.

2. **Work-related diseases** – are multifactorial in origin, where factors in the work environment may play a role, together with other risk factors, in the development of such diseases, for example, plantar fasciitis, lower limb varicose vein, frozen shoulders, etc.

3. **General diseases** – are diseases affecting the working population. They do not have causal relationship with work but may be aggravated by occupational health hazards, for example, diabetes mellitus, gout, rheumatoid arthritis, etc.

This pamphlet introduces lower limb varicose vein which is a common "work-related disease".
What is lower limb varicose vein?

It presents as dilated, tortuous and swollen veins over the lower limbs. It is mainly due to defective function of the valves of the veins or intrinsic weakness of the venous wall.

**Causes**

- Personal factors e.g. pregnancy, overweight, gender (more common in female)
- Family history of varicose veins
- Prolonged standing or sitting that increases the venous pressure in the lower limbs
- Other factors e.g. as a complication of thrombophlebitis of the lower limbs

**Symptoms and signs**

- Dilated veins over the lower limbs without any symptom initially
- Skin itchiness of the affected area, heavy sensation and dull ache of the affected leg, ankle swelling
- Complications such as eczema, bleeding and ulceration in the affected area in severe cases

**Which occupations have a higher risk?**

- Sales personnel, cook, teacher and nurse etc.
How to prevent it?

1 Avoid standing at work or prolonged walking
   - Employers shall arrange for employees a break with sitting for 10 to 15 minutes after continuous standing work for every 2 to 3 hours or perform appropriate stretching exercises to relax their legs.
   - Move around after prolonged sitting or standing in order to enhance venous blood return from the lower limbs.
   - Flexible work arrangement allows employees to relieve lower limbs fatigue.

2 Reduce pressure in the lower limbs
   - Maintain desirable body weight.
   - As far as reasonably practicable, provide a suitable work chair or a chair for occasional sitting at the working location for the employee standing at work.
   - If your work requires prolonged standing, shift your weight from one leg to another from time to time, or rest your legs alternately on foot-rail or foot-rest.
   - Shock absorbent mat could be used.
### 3 Suitable exercises

**Exercise 1**

1. Sit properly with your feet on the floor. Straighten your right leg and keep it at the horizontal level. Move the right foot back and forth 5 times.
2. Repeat the above movements with the left leg.

**Exercise 2**

1. Raise one leg while sitting. Rotate your foot outward 10 times.
2. Then rotate your foot inward 10 times.
3. Repeat the above movements with the other leg.
Exercise 3

(1) Hold onto a stable object with both hands. Stand with your heels raised. Hold for 5 seconds and then return to the standing posture.

(2) Repeat this set of movements 20 times.

Healthy lifestyle

- Adequate rest and sleep
- Engage in regular physical activities
- Balanced diet and maintain a desirable body weight
How to treat it?

(1) Rest – Dull ache and swelling of the lower limbs can often be relieved with periodic resting and leg elevation.

(2) Compression therapy – Wear well-fitted compression stockings which exerts external compression that promotes venous blood return.

(3) Surgery - The treatment for varicose vein is mainly surgical intervention. There is no effective medication for treatment of the condition.

Conclusion

Lower limb varicose vein is a "work-related disease". Although work is only one of the many risk factors in the development of the disease, the chance of getting this disease can be minimized by eliminating the health hazards at work, reducing the associated risks, and adopting appropriate preventive measures.
If you wish to enquire about this leaflet 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.

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

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.

This leaflet can be 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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