

HEALTH & WELLNESS



Health and wellness

Why DVT can strike anyone, any time and how to avoid a killer blood clot

You don't have to be an overweight smoker drinking alcohol on a 12-hour flight to be at risk of deep vein thrombosis; anyone immobile for just a few hours should do some simple leg exercises to prevent a potentially fatal blood clot

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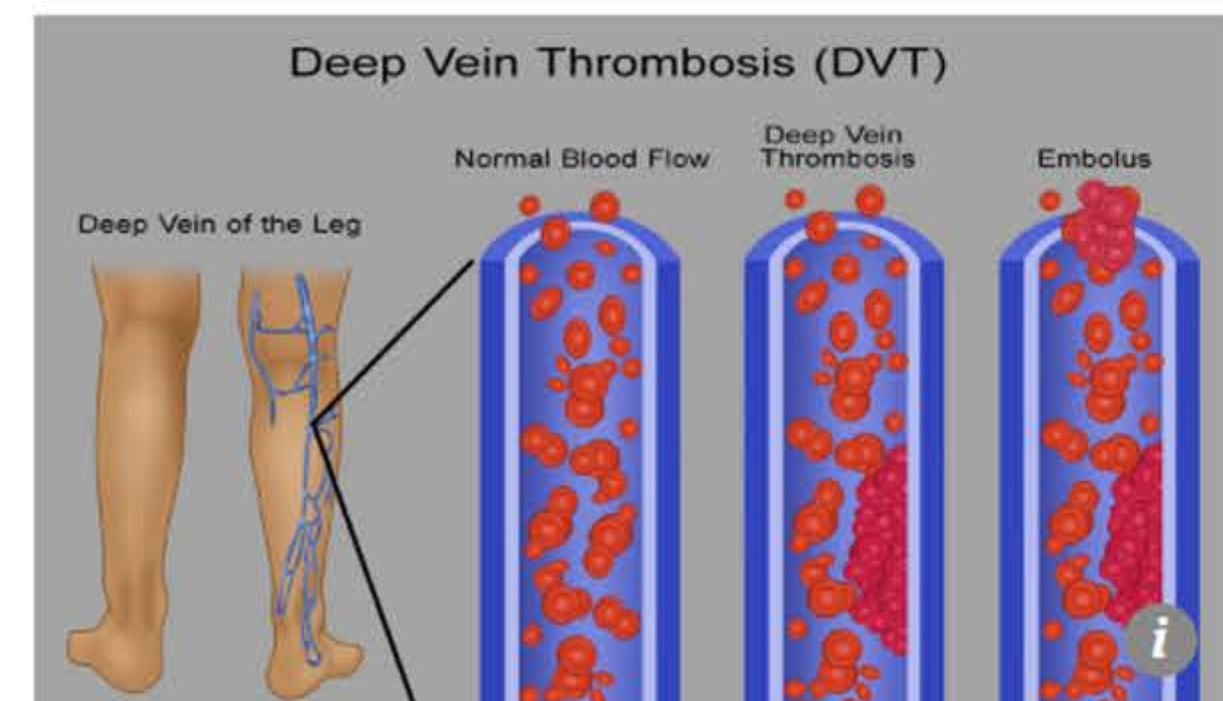
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Who has not heard of DVT – deep vein thrombosis? I thought it happened only in overweight, unfit people over the age of 50, people who smoked too much, exercised too little and got their comeuppance as they ate their way through airline meals on seriously long-haul flights.

So when I – under 50 at the time, fit, non-smoker, lean – awoke after being cat-curlled in a seat on a six-hour flight with a pain in my right calf, I naturally assumed it was only a cramp. I stretched my skinny-jean clad legs out, said "ouch", gave it a rub and disembarked, certain I'd walk the soreness off in no time.

Except that I didn't. Two days later, the deep ache was waking me at night and I resorted to pain medication. A nagging voice in my head began to question whether this was more than a mere cramp. A cautious friend advised a visit to a doctor's clinic; the doctor examined my legs: no redness, no heat, no swelling – just pain.

"I'm sure it's not DVT," he said, "but we can't take a chance."



He sent me off to the accident and emergency department, where I had a blood test for D-dimer – a protein fragment from the breakdown of a blood clot. The test indicated I had DVT, confirmed by an ultrasound.

An injection of blood thinners to further break down the clot was plunged into my abdomen so that a bruise bloomed black and as big as my fist. X-rays of my chest followed, to ensure my lungs were clear and three months of anticoagulants were prescribed.

I was appalled. DVT didn't happen to people like me: the young (ish), the fit, the lean non-smokers. Oh yes, they do, said the vascular surgeon who examined me.

Deep vein thrombosis is the medical term for blood clots in the deep veins of the leg. If a blood clot forms inside a blood vessel, explains Dr Chad Tse Cheuk-wa, a surgeon who specialises in vascular and endovascular surgery at Hong Kong's Veno Clinic, "it can clog the vessel and keep blood from getting where it needs to go. When that happens, blood can back up and cause swelling and pain."



DVT is always considered serious, as any clot in a vein "can travel to other parts of the body and clog blood vessels there", Tse said. "Blood clots that form in the legs, for example, can end up blocking blood vessels in the lungs. This can make it hard to breathe and sometimes, when they are large, can lead to death." A blood clot that travels to the lungs is a pulmonary embolism.

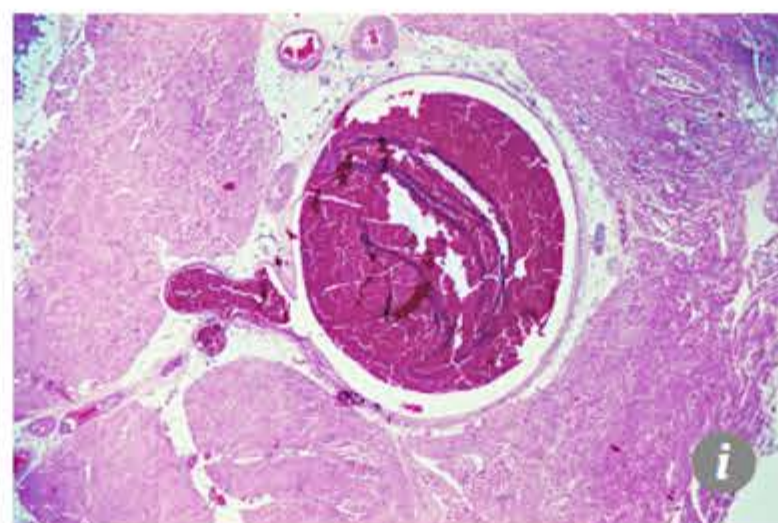
Many things can predispose a person to DVT, including obesity, smoking and age, as well as certain medical conditions, some medications – including birth control pills and hormone replacement therapy (HRT) – and surgery. Dr Tse says prolonged travel – whether by plane, train or automobile – appears to confer a two- to fourfold increase in risk, and taking one long-haul flight a year increases the risk by 12 per cent.

My surgeon said immobility and dehydration are the key reasons flying is a risk – and he warned that "long-haul" can be as short as four hours. Immobility allows the blood in your legs to pool in your calves, and a lack of hydration allows that blood to become "sticky". The combination of thick, slow-flowing blood is not good.

The first documented case of DVT was reported during the middle ages. In 1271, a 20-year-old Norman cobbler complained of pain in his lower leg. A visit to the tomb of canonised King Louis IX was advocated, where the cobbler massaged dust into his leg.

Subsequent DVTs were diagnosed in pregnant and postnatal women, believed to be the consequence of "evil humours" during pregnancy and post-delivery – meaning a build-up of unconsumed breast milk.

During the first world war, exhausted young soldiers in the trenches suffered from blood clots in their legs, caused by sleeping upright in chairs, their legs beneath them. Today's taxi and bus drivers are at risk as they sit immobile for long stretches.



Tse says the incidence of DVT among Hongkongers is on the rise. "Overall annual incidences of thromboembolic disease in Hong Kong is 30 per 100,000 of the population; hospital mortality rates associated with DVT are 7.3 per cent." The US Centres for Disease Control and Prevention suggests the incidence is higher in America – one to two per 1,000.

One-third of people with DVT or a pulmonary embolism will have a recurrence within 10 years; 10 per cent to 30 per cent of people will die within one month of diagnosis. In the US, one person is diagnosed with DVT every minute, and a sufferer dies as a result of its complication, pulmonary embolism, every six.

Among those with DVT, half will have long-term complications (post-thrombotic syndrome) – as I do: a nagging pain presents in my right calf after prolonged standing or exercise due to enduring damage to valves in the vein.



Flying isn't the only cause of DVT, and not all people who fly long-haul will develop it. Given the frequency of air travel today, though, it's a risk we all need to take more seriously. I certainly do: I drink lots of water – "two litres during a seven-hour flight because the atmosphere in the cabin means you dehydrate 20 per cent faster", my surgeon said.

This means I can't help but walk up and down the aisle to get my blood circulating, as I get up to use the loo every hour, and instead of skinny jeans I wear toe-to-groin surgical stockings.

Air travel isn't as sexy as it used to be.

Travel tips to prevent DVT

All air travellers, says Tse, should consider the following:

- Stand up and walk around every hour or two;
- Consider wearing knee-high (or higher) compression stockings;
- Apart from the stockings, wear loose-fitting, comfortable clothing;
- Avoid medications such as sedative or sleeping pills, and alcohol, which could impair your ability to get up and move around; and
- Flex and extend the ankles and knees periodically, avoid crossing the legs or sitting on your legs, and change positions frequently while seated

The US Centres for Disease Control suggests three simple exercises to help keep the blood flowing:

1. Raise and lower your heels while keeping your toes on the floor
2. Raise and lower your toes while keeping your heels on the floor
3. Tighten and release your leg muscles

This article appeared in the South China Morning Post print edition as: How DVT can strike even the healthy