The clot thickens

Deep vein thrombosis (DVT), that's increasingly affecting a large number of frequent long-distance air and road travellers, is a condition that, experts say, can be avoided.

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Next time you feel discomfort and swelling in your legs while in a flight, don't ignore it. Robert Brown, a UK-based lecturer learnt this the hard way. On his flight from London to Delhi, he noticed some swelling on his left leg and that the skin over the affected area had started to look pale. By the time he landed in Delhi, Brown's condition had deteriorated so much that immediately after touch-down, he had to be whisked away to the city's nearest hospital for treatment.

Brown had suffered deep vein thrombosis (DVT), a condition in which a blood clot forms in one of the deep veins, usually in the leg. The symptoms of DVT include painful swelling with redness accompanied by a bulging out of superficial veins. It can sometimes even occur without symptoms. Experts say, if you notice these symptoms in the legs, you must immediately consult a physician. Wear basic treatment will include a few tests and a dose of anticoagulants like heparin. However, they warn that if ignored, DVT can lead to complications such as pulmonary embolism — in which the clot travels up the blood stream to the lungs and causes a blockage. Pulmonary embolism is characterised by chest pain and breathing difficulties and can be fatal if left untreated.

According to experts, this condition can occur more in people who've just had a surgery, or those who are on certain types of medication and have a history of cancer, stroke and heart failure. People who smoke, are obese, and pregnant women are also at an increased risk.

DVT is most common in the deep veins of the calf region. Catherine Le Gales-Camus, WHO assistant director-general for non-communicable disease adds, "Women on birth-control pills are also more susceptible." In Robert Brown's case, it was a recent leg injury coupled with limited leg movement during the flight that triggered off the clot formation.

DVT is also caused by three other factors: decreased blood flow, damage to the wall of the vessel, and an increased tendency of the blood to clot. That is why long-haul flights, lasting for over four hours can increase the risk of developing DVT.

It's no surprise then that with an increasing number of people undertaking long-distance travel by air, the incidence of DVT is on the rise. The World Health Organisation estimates that, on an average, one person is affected for every 20 long-haul flights carrying 300 passengers. Dr Sandeep Vaishya, neurosurgeon at Delhi's Max Hospital says, "There is solid evidence to prove that sitting down without moving your feet for long periods of time, which can happen during any form of long-distance travel, can cause DVT."

A recent study on medical issues related to commercial flights carried out at Lahey Medical Centre, US, found that 75 per cent cases of DVT were due to lack of enough movement during the flight and most sufferers were in non-aisle seats where passengers any way tend to move even less.

The easiest way to prevent the occurrence of DVT is to drink plenty of water throughout the flight. "Dehydration causes the thickening of blood and leads to DVT," says Dr Vaishya. It's also a good idea to avoid alcohol and caffeine as they are diuretics and lead to loss of water through increased urination.

What also helps is a good deal is to keep your legs and feet moving even while sitting. According to Dr Kameshwar Prasad, professor of neurology at the All India Institute of Medical Sciences (AIIMS), without regular muscle contractions, the blood starts to pool in the legs and can create conditions for a clot to develop in deep veins. To avoid DVT, he suggests some simple exercises that can be done while being seated in flight. These include lifting first two toes up, then lifting the ankle, level holding it for a second and then lowering it down. This should be repeated about 10-12 times and then do the same with the other leg. Similarly, flex your toes up and down and rotate ankles about five times each. Keep doing these exercises through the flight, or while travelling on road, to keep the blood flowing to your legs and feet, he advises. Dr Prasad goes on to add, "Wearing graded compression stockings can also help prevent clots. Stockings keep the calf muscles under uniform pressure thereby reducing the chances of a blood clot. Otherwise, tight clothes cause constriction at a single point, consequently increasing the chances of a clot."