

Deep vein thrombosis (DVT): What is the risk of developing DVT during a flight and can it be prevented?



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Deep vein thrombosis (DVT) occurs when a blood clot forms in a person's leg veins. Sometimes this causes symptoms, such as tenderness, redness or swelling of the lower legs, raised temperature and a change in the colour of the skin around the area. But DVTs often cause no symptoms at all.

Most DVTs resolve without treatment and do not cause problems. However, a deep vein thrombosis can be dangerous if the blood clot dislodges and moves to the lungs, where it might block an artery. This complication, called pulmonary embolism, can cause shortness of breath and can suddenly become dangerous. It is most likely to happen within two weeks of the DVT developing.

Two research groups, one from the University of Virginia in the United States and the other from Leiden University in the Netherlands, searched for studies on deep vein thrombosis and flying (often called "economy class syndrome"). They found and analysed studies covering the experiences of millions of air travellers. The two research groups estimated that the risk of a DVT that causes symptoms after a flight longer than six eight hours is around 2 to 5 per 10,000 travellers (0.02 to 0.05%). For people flying less than four to six hours there was no increased risk of DVT from flying.

This means that the risk of DVT for people flying longer than six to eight hours is about the same as for a person who is bedridden for three days or someone who has varicose veins. No studies looked at whether or not DVT is more likely in people who fly economy class than it is in those who fly business class.

The Dutch research group also addressed the question of whether longer trips increase the risk of DVT more. They found that the risk increases when a trip is longer than 12 hours, and that it keeps increasing as a trip gets longer.

There are some medical conditions that increase people's risk of DVT when they fly. According to the American researchers, the risk then is somewhat less than four times higher. This means that their risk is lower than 0.2%, or 20 people out of every 10,000. The people shown to be at higher risk in these studies were people who had had a

DVT before, were severely overweight or who had a blood clotting disorder, limited mobility, recent surgery, active cancer or large varicose veins. People who have a leg in a cast or splint are also at higher risk of developing DVT.

The American researchers found that putting on knee-high compression stockings at least two hours before the flight and wearing them during the entire flight can decrease the risk of DVT. ASA or ASS (acetylsalicylic acid, eg in "Aspirin") has not been proven to prevent the risk of DVT for air travellers. Anticoagulant drugs such as heparin and warfarin have been shown to reduce the risk of DVT in other studies not involving air travel. But people who use these drugs are more likely to have heavy bleeding than people who use ASA. What is more, it takes a few days for them to start working, so they do not seem to be appropriate for the prevention of air-travel-related DVT.

The American researchers stressed that for most people at low risk of DVT, drinking plenty of fluids as well as exercising their leg muscles and walking around during the flight are probably enough to avoid DVT.

You can read more about what can be done to prevent DVT in immobilised legs here (URL: <http://www.informedhealthonline.org/index.530.en.html>) .

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Sources

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