



Deep Vein Thrombosis and Prevention for Pilots

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Of all the cross-control, skip and skid reasons for using the rudder pedals, one unmentioned reason is the constant flexion of the muscles of the legs that permits the free flow of blood in the legs, reducing the potential for the creation of clots. It is an impediment to the flow of blood, the constriction of blood vessels from crossing the legs, for example, that can pinch the veins and lead to a clot. Other factors include dehydration on a long flight that can thicken the blood and impair its free flow. Although hypoxia is not one of the inducing causes, it may act synergistically.

Several inherent risks can promote deep vein thrombosis: Obesity, Immobility, people over the age of 50, and women more than men. Additionally, five percent of the population carries gene mutations (FVL and PGM) that can predispose one to the formation of clots.

Avoidance is simple:

- a.) Mobility, although restricted in the cockpit, can be accomplished by flexion and contraction of the muscles as in isometrics. If you are in a commercial airliner you can get up and walk the aisle.
- b.) Hydrate yourself constantly for the duration of the flight. There are no overt signals for dehydration.
- c.) Consider losing weight and exercise for optimal health.
- d.) From a medicinal point of view, Aspirin (81mg or “baby aspirin”) is good to take prior to a long flight as long as you don’t have allergy or stomach sensitivity to it. Aspirin helps prevent clot formation. Raw onion and garlic also help but then you would be flying alone most of the time. Wouldn’t you?

On a more serious note, if you develop a “twinge” in your calf muscles or thighs during a flight that feels like a “Charlie Horse” and wont go away by rubbing, or worsens on standing up, bring it to the pilot/flight attendant’s notice. This is especially important if you develop sudden chest pains or shortness of breath with or without the leg discomfort. The latter symptoms can be life threatening and may indicate a lung clot or “Pulmonary Embolism.”

The immediate treatment for a lung clot is “thinning” the blood with Heparin or other substitutes in a controlled medical setting.

Think Prevention!

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