

Economy Class Syndrome: Leg Blood Clots and Plane Travel

By Dr. Rebecca White

Does anyone remember Dan Quayle? Vice President Quayle developed a blood clot in his leg during extended air travel in 1994, sparking interest in blood clots that develop in air travelers and others having to sit for extended periods of time. “Economy Class Syndrome” was soon coined to describe the event of blood congealing into leg clots which can occur in cramped conditions such as found in economy class airplane travel. Mr. Quayle served also as an example of the major complication of clot development: the clot can move from the legs to the lungs and cut off major portions of the lung’s blood supply. A recent case of a young woman flying from Sydney to London, developing a clot that caused death shortly after reaching London has now fueled the concern and debate over this most recent air travel risk.

Economy Class Syndrome might just as well be called “First Class Syndrome”, or “Computer Desk Syndrome” as the combination of events that can culminate in the development of a clot is related to sitting for extended periods of time allowing pooling of blood in the lower legs. But sitting cramped in a small space for extended time is only one of many risk factors for developing a clot. Risks related to humans include smoking, dehydration, drinking alcoholic or caffeinated beverages, obesity, being 50 yrs of age or older, being pregnant, taking estrogen containing birth control pills, and history of having clots in the past. Risks attributable to flying itself include the low humidity in airliners as well as the restricted space for movement. Risks attributable to sitting whether it be in a plane or at your computer desk, is the pressure the seat exerts against the back of the leg. Sharp edged seats are more apt to put enough pressure on the leg to decrease circulation. The more risks you have, the more likely you may develop a clot.

Protecting yourself against clot development can be summed up by two words: move and drink. Movement improves circulation, and drinking—water that is—keeps your blood from getting thicker from dehydration. Although walking in the plane works well, moving the foot up and down at the ankle also works, when unable to get up from your seat. Specific seat exercises can be found at: www.continental.com/travel/specialneeds/health.asp. Increased water, not alcohol or caffeinated beverages, is best at keeping dehydration at bay. Also wearing loose fitting, non-constricting clothing and shoes improves circulation, as does avoiding leg crossing. Waiting in the airport for the next flight is best spent walking, not sitting. Other possible preventative treatments should be individualized. Talk to your health care provider to find out if you should do any other measures to decrease your risk of clots.

Recognize the symptoms of possible clot in the leg or lung—swelling in one lower leg, swelling and bruising around the knee, shortness of breath, or chest pain—and act if you have them.

Contact your health care provider or go to the local emergency room if you start experiencing symptoms after flying.

Even though Economy Class Syndrome is in the news now, this shouldn’t keep you off the plane. Remember that having a clot while flying is still unusual in healthy people. Studies in the past have shown clots going to the lungs 0.4 cases per million passengers and on air flights longer than eight hours the occurrence was 1.65 per 1 million passengers. So get on that Pen Air flight with water in hand, with leg exercises, and without fear.

