

## Air travel no 'significant threat' to cardiovascular health, says new guidance

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Air travel poses no "significant threat" to cardiovascular health, with few conditions likely to warrant restrictions, concludes new guidance published in the journal *Heart*.

The guidance, which has been drawn up by the British Cardiovascular Society, was prompted by widespread public concern about the impact of air travel on health and a House of Lords Science and Technology Committee report on this same issue, published in 2007.

The House of Lords report called for definitive specialist guidance to help passengers, doctors, and commercial airline carriers properly assess the health risks of flying for those with cardiovascular disorders.

Several sets of guidelines on this subject already exist, but the recommendations vary widely, particularly in respect of the appropriate time lag between an incident or medical procedure and a flight.

The new guidance draws on the published evidence, such as it is, and the expertise of a panel of specialists in cardiology, respiratory disease, and aviation science.

The main impact of air travel is breathing in air with a reduced oxygen content— resulting in lower circulating oxygen levels in the blood—in a pressurised environment, referred to as hypobaric hypoxia, says the guidance.



Passengers already at high risk of angina, heart attack, <u>heart failure</u> or <u>abnormal heart rhythms</u>, may be adversely affected by <u>hypoxia</u>, but the blood oxygen levels induced by flying "appear to have little or no adverse circulatory effects" and certainly not for short and medium haul flights, it says.

The guidance acknowledges the deleterious impact of "airport stresses" such as security measures, the threat of terrorism, and luggage handling, on <u>cardiovascular health</u>. But most airports provide "excellent services" to assist those with health problems or disabilities, it says.

Even passengers with more serious forms of cardiovascular disorders can fly, providing they take their medication, don't overexert themselves, and can access in-flight oxygen and airport assistance, it says.

Some procedures/conditions may also require waiting an appropriate length of time before flying, to check there are no complications or to ensure the condition is stable.

The guidance also confirms that having a pacemaker does not prohibit flying, and while a long haul flight doubles the risk of deep vein thrombosis (DVT), the risk is similar to that incurred during car, bus or train travel for a similar period.

The absolute risk of DVT for a fit and healthy person is one in 6000 for a flight of more than four hours, says the guidance, pointing out that pilots are at no greater risk than the general population.

Even those at high risk—those who have already had a DVT or recent surgery lasting more than 30 minutes—can still fly, providing they take plenty of fluids, excluding caffeine and alcohol, wear compression stockings, and take a blood thinner, it says. Aspirin is not recommended.



"For those with cardiovascular disease who are not critically ill, but who wish to fly on commercial aircraft, the aircraft environment does not pose a significant risk to their health," concludes the guidance.

"It is only when their underlying condition is associated with a significant risk of acute deterioration that reasonable restrictions should apply."

Provided by British Medical Journal

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