

Living under a flight path increases heart attack risk

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Credit: Magnus Rosendahl, Public-domain-photos.com

(PhysOrg.com) -- Research in Switzerland suggests the risk of dying from a heart attack is greater for people exposed to the noise of aircraft flying overhead. The study included data on 4.6 million adults in Switzerland between 2000 and 2005, and found the effect was greater for people living under a flight path for long periods and for those exposed to high levels of aircraft noise.

Leader of the study, Matthias Egger from the University of Bern, said previous studies have linked noise, such as from [road traffic](#), to health risks including heart attacks, but it has been difficult to detach the effect of noise from other associated factors such as [air pollution](#). Using data from areas surrounding airports allowed them to disentangle these effects.

The information was gathered from the ongoing Swiss National Cohort longitudinal study on mortality, along with government records and environmental data, and included details of the distance from residents to airports and major roads and how long they had resided there, along with relative levels of [particulate matter](#) at these locations.

Exposure to aircraft noise was determined based on geospatial noise and air pollution models, and the risk of death was compared in relation to decibels of sound and duration of residence under the flight corridor. The data were adjusted for distance from major roads, gender, education levels, and socioeconomic levels of the residential area.

The study included data for 4.6 million adults over 30 years old, of whom 15,532 died of [heart attack](#) in the period. The results indicated that mortality from heart attack increased with the level of aircraft noise and its duration. Deaths from other causes, including stroke and lung cancer, were not associated with aircraft noise.

Exposure to an average daily noise level of 60 decibels or greater led to a 30 percent higher risk of a lethal heart attack over people exposed to an average of under 45 decibels. For people who had lived in a high [noise level](#) area 15 years or longer, the risk increased to 50 percent higher. Living closer than 100 meters from a busy road also increased the risk, but air pollution had no impact on heart attack death rates.

The paper was published in the journal *Epidemiology*. The researchers said further studies are needed but measures to protect people from sound, such as better home insulation, adjustments to flight paths and reducing the number of night flights could all help reduce the risk.

More information: Aircraft Noise, Air Pollution, and Mortality From Myocardial Infarction, *Epidemiology*, November 2010, Volume 21, Issue 6, pp 829-836. [doi:10.1097/EDE.0b013e3181f4e634](https://doi.org/10.1097/EDE.0b013e3181f4e634)

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