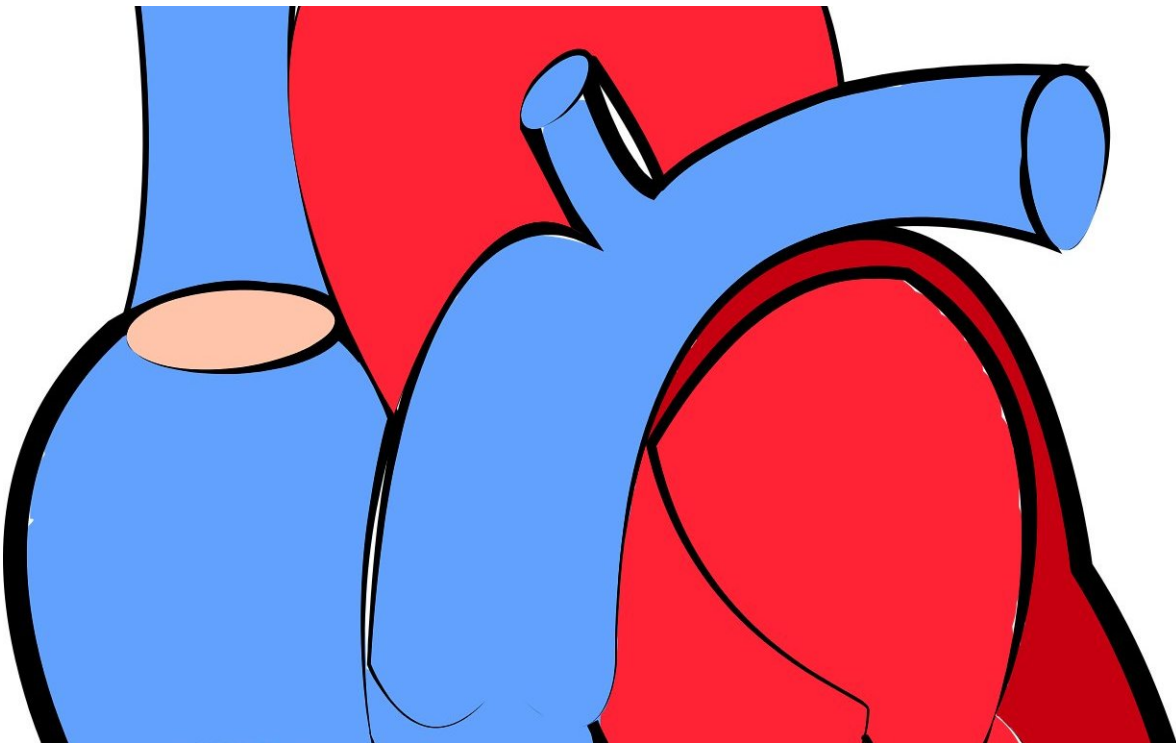


Poor lung function in shorter people linked to increased risk of heart disease

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Results from a study led by researchers from Queen Mary University of London has found that an association between shorter stature and higher risk of heart disease is mainly attributed to our lungs.

In the study, recently published in the journal *Communications Biology*,

researchers examined over 800 places in the human genome known to be associated with adult height and also evaluated data suggesting that lower height increases the risk of developing type 2 diabetes and [coronary heart disease](#).

The authors found no evidence of a causal link between height and type 2 diabetes risk once an individual's body mass index was taken into account but reported a [causal relationship](#) between height and [heart disease](#) risk.

Many traditional risk factors for heart disease were investigated including, cholesterol, triglycerides, [blood pressure](#), fat percentage, and socio-economic parameters including education and income, but results showed that they only account for a very small part of the effect of height on heart disease risk. The way our lungs function accounted for most of this effect.

Lead author, Dr. Eirini Marouli from Queen Mary University of London said: "Understanding the causal relationship behind an observation such as the inverse relationship between [adult height](#) and heart disease risk is important in advancing our knowledge about the disease and has the potential to point towards [lifestyle interventions](#) that can impact disease prevention.

"Our results suggest that we need to assess lung function alongside someone's height to have a better handle in predicting their risk in developing heart disease."

Heart attacks are one of the most common causes of death worldwide. Nearly one in six men and one in ten women die from heart disease, therefore identifying [heart disease risk](#) factors, especially those that could be modified through early lifestyle interventions, is specifically important.

According to Professor Panos Deloukas from Queen Mary University of London, senior author of the study: "Individuals of shorter stature can consider regular exercise and the avoidance of a sedentary lifestyle and smoking to reduce their risk of heart disease given that, as we showed in this study, the effect of shorter height on the risk of heart disease is mediated by lung function.

"Our findings and further studies of this nature, empower efforts to promote a healthy lifestyle and in particular physical activity that can lead to improved lung function."

More information: Eirini Marouli et al. Mendelian randomisation analyses find pulmonary factors mediate the effect of height on coronary artery disease, *Communications Biology* (2019). [DOI: 10.1038/s42003-019-0361-2](https://doi.org/10.1038/s42003-019-0361-2)

Provided by Queen Mary, University of London

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