

A person's height impacts their risk of multiple diseases

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Researchers find that height may be a risk factor for several common conditions in adults. Credit: Anna Shvets, Pexels (CC0,

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Whether tall or short, a person's height increases their risk for a variety of diseases, according to a new study led by Sridharan Raghavan of the Rocky Mountain Regional VA Medical Center, U.S. publishing June 2nd in the open access journal *PLOS Genetics*.

Height has been a factor associated with multiple common conditions, ranging from heart disease to cancer. But scientists have struggled to determine whether being tall or short is what puts them at risk, or if factors that affect height, like nutrition and socioeconomic status, are actually to blame. In the new study, researchers set out to remove these confounding factors by looking separately at connections between various diseases and a person's actual height, and connections to their predicted height based on their genetics. The team used data from the VA Million Veteran Program, which included genetic and [health information](#) from more than 200,000 white adults and more than 50,000 Black adults.

The results confirmed previous findings that being tall is linked to a higher risk of atrial fibrillation and [varicose veins](#), and a lower risk of coronary [heart disease](#), [high blood pressure](#) and high cholesterol. The study also uncovered new associations between greater height and a higher risk of [peripheral neuropathy](#), which is caused by damage to nerves on the extremities, as well as skin and bone infections, such as leg and foot ulcers.

The new study looked at more than 1,000 conditions and traits overall, making it the largest study of height and disease to date. The researchers conclude that height may be a previously unrecognized risk factor for several common conditions in adults. However, they say that more

studies are needed to clarify some of these associations, and that future studies would benefit from including a larger, more diverse international population.

Raghavan adds, "Using [genetic methods](#) applied to the VA Million Veteran Program, we found evidence that adult height may impact over 100 clinical traits, including several conditions associated with poor outcomes and quality of life—peripheral neuropathy, lower extremity ulcers, and chronic venous insufficiency. We conclude that height may be an unrecognized non-modifiable risk factor for several common conditions in adults."

More information: A multi-population phenome-wide association study of genetically-predicted height in the Million Veteran Program, *PLoS Genetics* (2022). [DOI: 10.1371/journal.pgen.1010193](https://doi.org/10.1371/journal.pgen.1010193)

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