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Short stature in men is associated with peripheral arterial disease

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Background: Peripheral arterial disease (PAD) affects approximately 202 million individuals around the world and associates with a high risk of myocardial infarction, stroke and death. Although there is a clear inverse association between adult height and the risk of cardiovascular disease, little is known about the relationship between height and PAD. The aim of our study was to assess the relationship between PAD and height.

Methods: A cross-sectional cardiovascular risk factor study was conducted in southwestern Finland from 2005 to 2006. Ankle-brachial index (ABI) and other risk factors were measured from a total of 972 cardiovascular risk subjects derived from general population. None of them had previously diagnosed diabetes, cardiovascular or renal disease or intermittent claudication. Subjects with an $ABI \leq 0.90$ were categorized as having PAD.

Results: The average age of the study subjects was 58.1 ± 6.7 years for men and 58.8 ± 6.9 years for women. The prevalence of PAD among men was 5% (95% CI 3-7%) (23/455) and among women 5% (95% CI 3-7%) (26/517). The mean ABI was 1.09 ± 0.12 and 1.08 ± 0.12 , respectively. In men, there was an inverse association between height and prevalence of PAD ($p < 0.001$) along with a positive association between height and ABI values ($p < 0.001$). The associations remained significant after adjusting potential cofounders but did not exist among women.

Conclusions: Short stature in men is associated with PAD and lower ABI values.