

## **Association of body height with diabetes, blood pressure and metabolic syndrome among Sri Lankan adults**

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### **Abstract :**

**Objectives:** Being tall has been suggested to be associated with better cardio-vascular health and longevity. We aimed to report the relationship of height with diabetes mellitus, blood pressure (BP) and metabolic syndrome (MS) among Sri Lankan adults.

**Methods:** Data were available for height and sociodemographic factors from a nationally representative cross-sectional sample of 4477 subjects above 18 years. Recruitment was performed between 2005-2006. Data were analysed using SPSS.

**Results:** Males were 39.5% and mean age was 46.1 (SD±15.1) years. The mean height of all adults was 156.2(SD±8.9) cm. Height showed a significant negative correlation with fasting blood glucose ( $p < 0.05$ ,  $r = -0.052$ ), 2-hour post-glucose blood glucose levels ( $p < 0.001$ ,  $r = -0.089$ ) and diabetes ( $p < 0.001$ ,  $r = -0.069$ ). There was a significant negative correlation between mean systolic BP and height ( $p < 0.05$ ,  $r = -0.032$ ), this was not observed for the mean diastolic BP. Height demonstrated significant correlations with total cholesterol ( $p < 0.001$ ,  $r = -0.106$ ), HDL cholesterol ( $p < 0.001$ ,  $r = -0.142$ ), LDL cholesterol ( $p < 0.001$ ,  $r = -0.104$ ) and triglyceride ( $p < 0.001$ ).

**Conclusions:** Our data showed a negative correlation between height and blood glucose levels, serum cholesterol levels and mean systolic BP. Also patients with MS were significantly shorter than those without MS. These data suggest that being tall reduces cardiovascular risk and the underlying mechanisms needs further study.