

## P1 Height in Hispanics With and Without Family History of Type 2 Diabetes

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### ABSTRACT

Coronary heart disease (CHD) is the world's leading cause of death, with type 2 diabetes (T2D) increasing that risk ~3-fold. T2D incidence in Hispanics of the Rio Grande Valley (RGV) is >27% vs 9% noted nationwide. Further, having a family history of T2D (FH+) increases risk by ~40%. **PURPOSE:** To determine if specific aspects of macrovascular function may precede overt hypertension and T2D in FH+ people in the RGV. **METHODS:** Thirty-three healthy individuals, including 10 FH+ and 23 FH- ( $26 \pm 7$ ;  $24 \pm 5$  yrs respectively), participated in this study. Hemodynamics and large artery function were assessed at rest. One-way ANOVA was used to determine group differences. Pearson correlation was used to determine relationships between significant variables. **RESULTS:** P1 Height, a measure of forward vascular pressure generated by ventricular contraction, was higher ( $p < 0.05$ ) in FH+ than FH- ( $p = 0.047$ ;  $26 \pm 1$  vs  $31 \pm 2$  mmHg respectively). P1 Height was positively correlated with systolic blood pressure ( $r = 0.558$ ), pulse pressure ( $r = 0.954$ ), central pulse pressure ( $r = 0.759$ ), %lean mass ( $r = 0.679$ ), bone mineral density ( $r = 0.693$ ), and brachial artery blood flow ( $r = 0.502$ ), and inversely correlated with: triglycerides ( $r = 0.525$ ) and %body fat percentage ( $r = -0.686$ ). **CONCLUSIONS:** P1 Height is elevated in FH+ individuals and is related to some variables of positive health status, such as triglycerides and lower body fat. More studies are warranted to determine if P1 height is cardioprotective, or a pathophysiological precedent to hypertension.