



# P5 Aortic Volume Wave Velocity (VWV) in Chronic Heart Failure (CHF) Measured During the 12 Channel Routine ECG by Impedance Plethysmography Relates Negatively to Appendicular Muscle Mass (AppMM)

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## ABSTRACT

**Introduction:** Pulse wave velocity or (or VWV) may relate to muscle mass and body fat. We have included measurements for the above in the routine 12 channel ECG.

**Methods:** A 12 channel ECG supplies impedance plethysmographic measurements at the four extremities at 40 kHz [1]. From these VWV was derived in analogy to carotid femoral PWV. Impedance measurements at 5, 40 and 400 kHz in six body segments are also provided [2]. From these AppMM and body fat were measured in 123 participants without diabetes and CHF and in 72 patients with CHF (NYHA class 2 to 4).

**Results:** In multiple backward stepwise regression analysis VWV was related positively to age, standardized systolic blood pressure [3] and negatively to AppMM index (total  $r = 0.83$ ,  $p < 0.001$ ) but not to body fat.

**Discussion:** The relation between VWV and the degree of sarcopenia in CHF reveals the importance of muscularity for aortic health.

## REFERENCES

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