

Personalized Treatment Regimen Following Pulse Wave Analysis

41-Year-Old Male With Untreated Hypertension*

Patient Medical History

- 41-year-old sedentary male
- No comorbidities
- No current Rx regimen

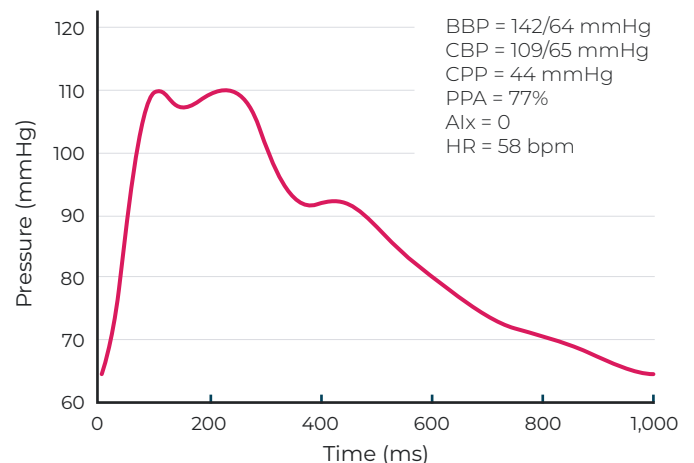
Initial Digital Vascular Biomarker Assessment

Brachial Blood Pressure	144/64 mmHg
Central Systolic Blood Pressure	109 mmHg
Central Pulse Pressure Amplification	77%

Initial Assessment Interpretation

This male patient's substantial pulse pressure amplification (brachial 78 mmHg/central 44 mmHg; 77%) and the central systolic BP < 124 mmHg argues against drug therapy. An exercise regimen was recommended and followed.

Figure 6. Central Pressure Waveform



BBP indicates brachial blood pressure systolic/diastolic; CBP, central blood pressure systolic/diastolic; CPP, central pulse pressure; Aix, augmentation index; HR, heart rate; bpm, beats per minute.

Follow up Digital Vascular Biomarker Assessment

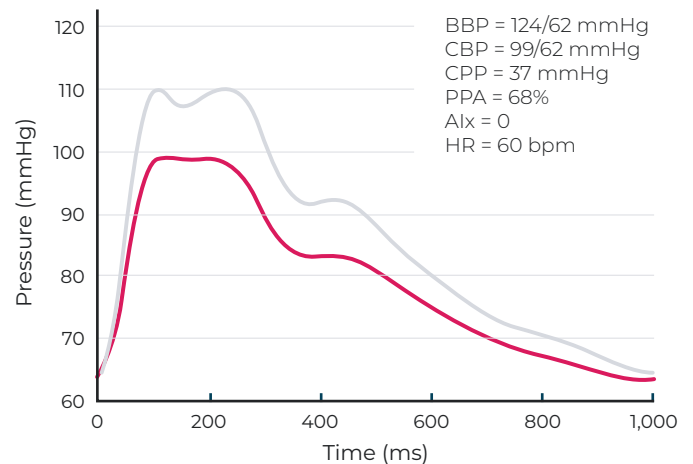
Brachial Blood Pressure	124/62 mmHg
Central Systolic Blood Pressure	99 mmHg
Central Pulse Pressure Amplification	68%

Follow up Assessment Interpretation

Following a three month exercise regimen, this male patient shows brachial systolic pressure improvement and continued substantial pulse pressure amplification (brachial 62mmHg/central 37mmHg; 68%). No additional pharmacologic therapies were prescribed and he was encouraged to continue the exercise program.

This clinical case study supports two important clinical decisions. One was not to pharmacologically treat a modest brachial systolic pressure elevation. The other was to support the value of exercise, which improved the patient's brachial blood pressure without loss of the advantageous central pressure profile.

Figure 7. Central Pressure Waveform



*Townsend RR et al. Journal of Clinical Hypertension. 2015; 17:7, 503-513.

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