

Pulse wave velocity (PWV) and arterial stiffness measured with the tonometer can be used to better understand patient risk for heart disease, stroke and dementia in certain populations.

Pulse wave velocity is a measure of arterial stiffness or the rate at which pressure moves down the vessel. To derive pulse wave velocity as a measure of arterial stiffness, the signals from two separate tonometers can be evaluated using the foot-to-foot flow wave velocity method¹.

Additionally, assessment of arterial stiffness via waveform analysis delivers data visibility for the augmentation index, augmented pressure and reflected wave magnitude.

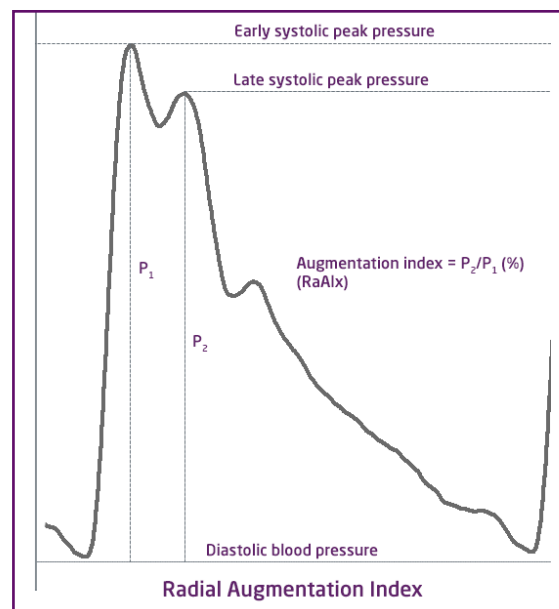
Easy Pressure Data Integration

Accurate Data to Analyze PWV and Arterial Stiffness

The Millar SPT-301 Pulse Wave Tonometer enables simple, non-invasive assessment of the cardiovascular system by delivering high-fidelity blood pressure waveforms from direct skin contact with the carotid, femoral or radial artery.

The SPT-301 tonometer has been cited in numerous publications evaluating hypertension, arterial stiffness, heart failure and the response of the central blood pressure system to various cardiovascular compounds.

As a proven method for reproducing high-fidelity arterial blood pressure waveforms, the tonometer provides medical researchers and clinicians with valuable data to better understand cardiovascular health risks.



Clinical & Research Applications

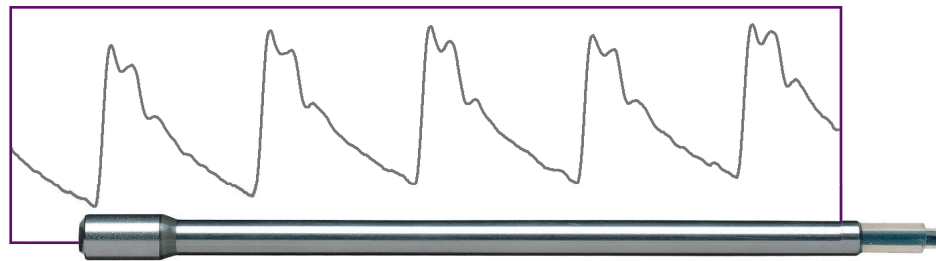
Hypertension
Heart Failure
COPD
Diabetes
Renal Disease
Arteriosclerosis
Blood Circulation Status

Recommended Equipment

Tonometer(s)
PCU-2000 Control Unit
PEC-10C Extension Cable
Data Acquisition System (DAQ)

Tonometer Product Specifications

The SPT-301 tonometer features a high-fidelity transducer at the tip that delivers a raw pressure signal output to enable peak-to-peak pressure waveform analysis. Pressure signals can be recorded and analyzed when connected to the PCU-2000 Control Unit and a data acquisition system. The device can be reused after proper cleaning and sterilization techniques.



Model Number	808-1019
Sensor Type	Diffused Semiconductor
Pressure Range	0 to +300 mmHg (0 to 40 kPa)
Overpressure	+4000 mmHg (+530 kPa), -760 mmHg (100 kPa)
Sensor Sensitivity	5 $\mu\text{V}/\text{V}/\text{mmHg}$, nominal (37.6 $\mu\text{V}/\text{V}/\text{kPa}$)

Indications for Use Statement

The Mikro-Tip® Pulse Transducer can be used when measuring non-invasive high-fidelity pressure waveforms from the carotid, femoral and radial artery. Additional contraindications, precautions and warnings are referenced in the Instructions for Use available under the Knowledge Center. This product is not available for sale in the EU.

References

1. Yasmin, M.J. Brown; Similarities and differences between augmentation index and pulse wave velocity in the assessment of arterial stiffness, QJM: An International Journal of Medicine, Volume 92, Issue 10, 1 October 1999, Pages 595-600, <https://doi.org/10.1093/qjmed/92.10.595>

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