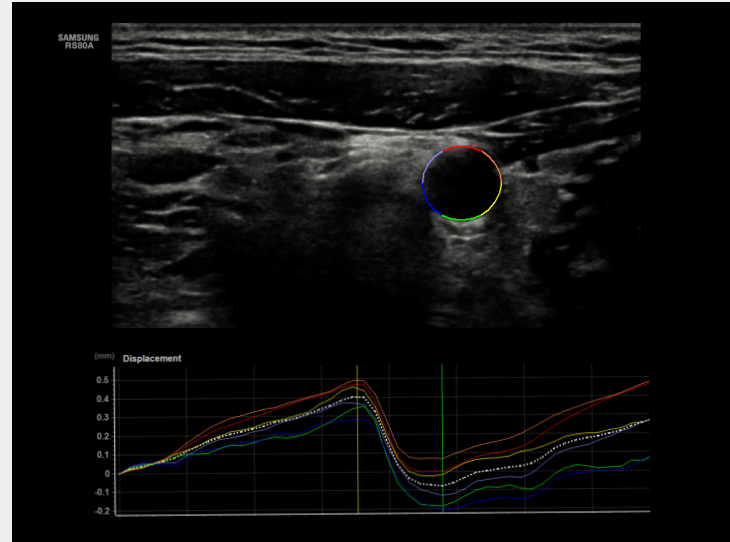
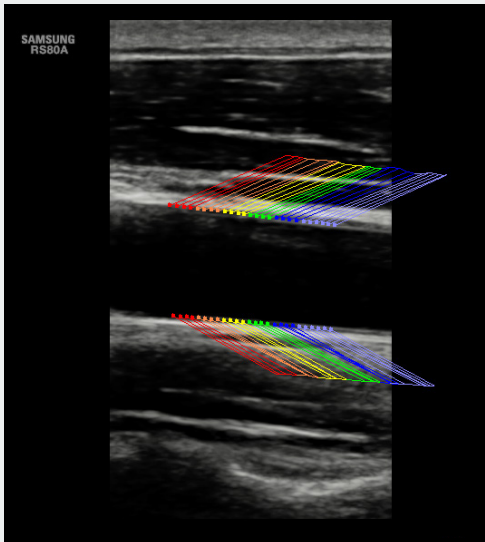


RS80A with Prestige

Arterial Analysis : A Comprehensive Vessel Analysis tool for early detection of CVD



Key Advantages

- Early Diagnosis** >>> Leads to earlier detection of cardiovascular disease
- Comprehensive Analysis** >>> Executes both morphological and functional analysis of the vessel
- Non-invasive Assessment** >>> Provides a non-invasive analysis tool

Arterial Analysis

With an increasing prevalence of cardiovascular disease, an early detection of risk indicators has become essential for better prognosis. In order to diagnose cardiovascular disease, specifically atherosclerosis, vessel thickness (IMT) or plaque formation is widely used. However, arterial stiffness has recently become another valuable marker to evaluate the condition of a vessel as the functional changes (i.e. increased arterial stiffness in vessels) tend to occur before morphological changes (i.e. thickened IMT and plaque formation)¹.

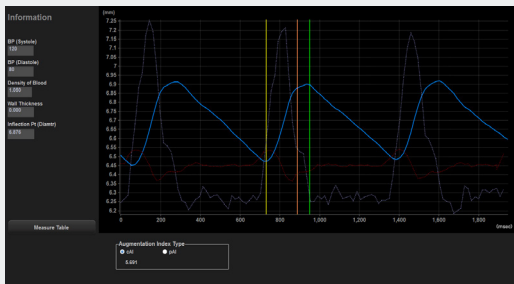
Arterial Analysis on Samsung Premium **RS80A with Prestige** ultrasound system provides measurements for both pulse wave velocity (PWV) and Augmentation Index (AI) to evaluate the arterial stiffness. **Arterial Analysis** also features IMT measurements, and multi-directional analysis with parametric images and analytical graphs.

Arterial Analysis enables both morphological and functional analysis of the vessel which leads to earlier detection of cardiovascular disease, especially for at-risk populations.

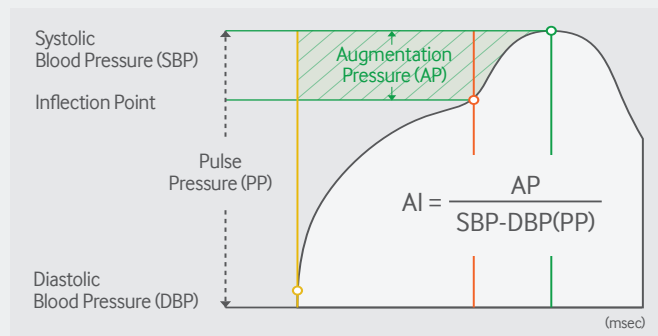
“**Arterial Analysis** is a Cardiovascular tool that can detect both morphological and functional changes of vessels—leading to **earlier detection** of cardiovascular disease.”

Comprehensive Vessel Analysis

1. **Augmentation Index (AI)** is a measure of systematic arterial stiffness and is defined as the difference between the initial and second systolic peaks expressed as a percentage of the pulse pressure (PP).



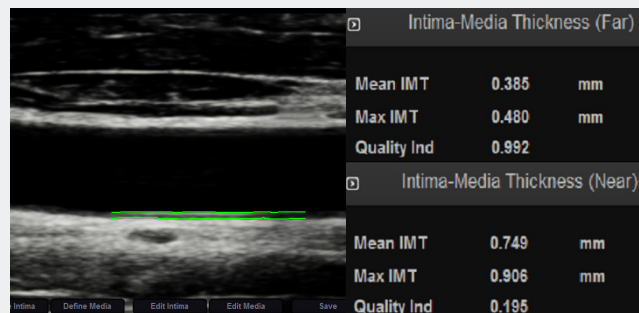
AI of Normal Vessel



2. **Vessel Evaluation Parameters** Arterial Analysis provides both functional and morphological analysis of a vessel by providing arterial stiffness measurements and IMT measurements.

Arterial Comp	0.000
Distensibility	0.000
Elastic Modulus	0.000
Young's Elas Mod	0.000
Pulse Wave V (B)	0.000 mm/s
Augment Index(C)	44.315
Augment Index(P)	1.057

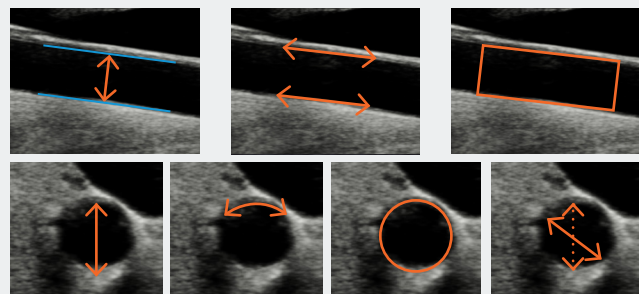
Arterial Stiffness Measurements (Functional Analysis)



IMT Measurements (Morphological Analysis)

3. Multi-directional Analysis

Multi-directional Analysis includes Radial, Longitudinal, and Area analysis from Long Axis View, and Radial, Circumferential, Area, and Angle analysis from Short-Axis View.



Reference

1. Noninvasive Assessment of Arterial Stiffness and risk of Atherosclerotic Event. Oliver et al.

Supported System

- RS80A with Prestige