- Measure a loss of systemic elasticity in the large (macro) and small (micro) vasculature
- Obtain new information on the cardiovascular health of your patients
- Risk-stratify diabetic, hypertensive, and hyperlipidemic patients
- Assess patients that may require more aggressive therapy and/or follow-up
HYPERTENSION OR ELEVATED BLOOD PRESSURE
TREAT THE CAUSE OF THE DISEASE, NOT THE RISK FACTOR

PATIENT A

CVProfile™ Report

ID#: DEMO DATA
Name: DOE, JOHN A
Date: Dec 11, 2001
Time: 12:35
Age: 42 years
Gender: Male
Height: 68 in
Weight: 145 lbs
BSArea: 1.78 meters²
Body Mass Index: 21.1

PARAMETER VALUE
Systolic Blood Pressure (mmHg) 150
Diastolic Blood Pressure (mmHg) 85
Mean Arterial Blood Pressure (mmHg) 128
Pulse Pressure (mmHg) 65
Pulse Rate (beats/min) 72
C1 — Large Artery Elasticity Index (Capacitive Arterial Compliance) 11.6
C2 — Small Artery Elasticity Index (Oscillatory or Reflective Arterial Compliance) 8.9

MEDICAL HISTORY CLINICAL COMMENTS:
CV Disease: N
CV Medications: N
Diabetes: N
Relatives CV Disease: N
Tobacco: N
Race: Caucasian

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Form: 00017-002K 02/04                        Toll-Free: 888-785-7392

Appropriate Arterial Elasticity

PATIENT B

CVProfile™ Report

ID#: DEMO DATA
Name: SMITH, MIKE M
Date: Dec 11, 2001
Time: 12:35
Age: 39 years
Gender: Male
Height: 69 in
Weight: 148 lbs
BSArea: 1.82 meters²
Body Mass Index: 21.9

PARAMETER VALUE
Systolic Blood Pressure (mmHg) 148
Diastolic Blood Pressure (mmHg) 90
Mean Arterial Blood Pressure (mmHg) 128
Pulse Pressure (mmHg) 58
Pulse Rate (beats/min) 87
C1 — Large Artery Elasticity Index (Capacitive Arterial Compliance) 6.9
C2 — Small Artery Elasticity Index (Oscillatory or Reflective Arterial Compliance) 2.0

MEDICAL HISTORY CLINICAL COMMENTS:
CV Disease: N
CV Medications: N
Diabetes: N
Relatives CV Disease: Y
Tobacco: N
Race: Caucasian

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Premature Arterial Stiffness

BEYOND THE CUFF ASSESSMENT OF VASCULAR DISEASE™

- Patient A and Patient B: Similar blood pressure, BMI and age.
- Patient A: Normal, healthy blood vessels.
- Patient B: Abnormal arterial elasticity, indicative of vascular disease.

Differentiate patients in need of more aggressive therapy
Clinical studies demonstrate that patients with hypertension\(^1\), heart failure\(^2\), hypercholesterolemia\(^3\), coronary artery disease\(^4\) and diabetes\(^5\) all exhibit premature loss of arterial elasticity or flexibility. A decrease in flexibility compromises the microvasculature, placing heightened stress on the circulatory system that can lead to heart attacks and strokes\(^6\).

**THE PATHOGENESIS OF VASCULAR DISEASE**\(^{1, 5, 6, 7, 8, 9}\)

**Normal elastic artery**

**Endothelial Dysfunction**  
Small artery elasticity is reduced with intimal thickening

**Early stages of atherosclerosis**  
Changes in the arterial wall have begun to impact blood flow and reduce large artery elasticity.

**Advanced stage of atherosclerosis**  
Large artery elasticity is markedly reduced and plaque formation has restricted blood flow.

**CONTRIBUTING FACTORS**
- Diet
- Smoking
- Inactivity
- Diabetes
- Cholesterol
- Blood Pressure
- Oxidative Stress
- Genetics
- Age

**TREATMENT**
- Diabetes:生活方式修改
- Hyperlipidemia: Statin Therapy
- Hypertension: ARB, ACE Inhibitor, Calcium Channel Blocker, Beta Blocker, Diuretic

**MARKERS**
- The CVProfilor\(^\circledast\) Measures Premature \(\bullet\) in C2-Small Artery Elasticity Index
- The CVProfilor\(^\circledast\) Measures Premature \(\bullet\) in C1-Large Artery Elasticity Index
- Calcium Score
- Ankle Brachial Index
- Pulse Wave Velocity
- Intima-Media Thickening

**TARGET ORGAN DAMAGE**
- Left Ventricular Hypertrophy
- Heart Attack
- Chest Pain
- Stroke
- Kidney Damage

- Reduction in C2-Small Artery Elasticity Index precedes blood pressure increase.
- C2-Small Artery Elasticity Index will continue to fall as vascular disease progresses.
- Atherosclerosis only occurs in the presence of endothelial dysfunction.
THE CVProfilor® DO-2020 SYSTEM

CHANGING CARDIOVASCULAR DISEASE ASSESSMENT

Whether you are looking at hypertensive or diabetic patients, not everyone with cardiovascular disease is the same; not all patients share the same risk for subsequent cardiovascular events; not all patients respond the same to medication. The CVProfilor® allows you to better risk-stratify those patients who need aggressive follow-up and/or testing as opposed to those who may benefit from lifestyle or therapy changes.

Presented in Hundreds of Scientific Peer-Reviewed Articles and Abstracts

- A two-unit decrease in small artery elasticity (C2) is associated with a 50% increase in cardiac events.\(^{11}\)
- A loss of small artery elasticity (C2) is a marker for atherosclerosis.\(^{12}\)
- A loss of elasticity precedes clinical complications in diabetes.\(^{5}\)
- A loss of elasticity precedes hypertension.\(^{1}\)
- Arterial elasticity correlates with flow-mediated vasodilation, a well-established measure of endothelial dysfunction.\(^{13}\)

CVProfilor®

- Painless and non-invasive
- Highly repeatable\(^{10}\)
- Immediate results
- Easy to Use
- FDA Cleared
- Dedicated customer service

Identify At-Risk Patients

- Hypertension and borderline hypertension
- Diabetes and pre-diabetes
- Hyperlipidemia, hypercholesterolemia
- Normotensive at genetic risk

5. Romney, J., Lewanczuk, R. Vascular Compliance is Reduced in the Early Stages of Type 1 Diabetes. Diabetes Care 24 (No. 12), December 2001, (Canada) Ref: 128