LD Technology
MAKING A DIFFERENCE

TM FLOW SYSTEM

AUTONOMIC LIFESTYLE AND VASCULAR ASSESSMENTS

GUIDANCE IN READING RESULTS

BLOOD PRESSURE AND ARTERIAL STIFFNESS ANALYSIS

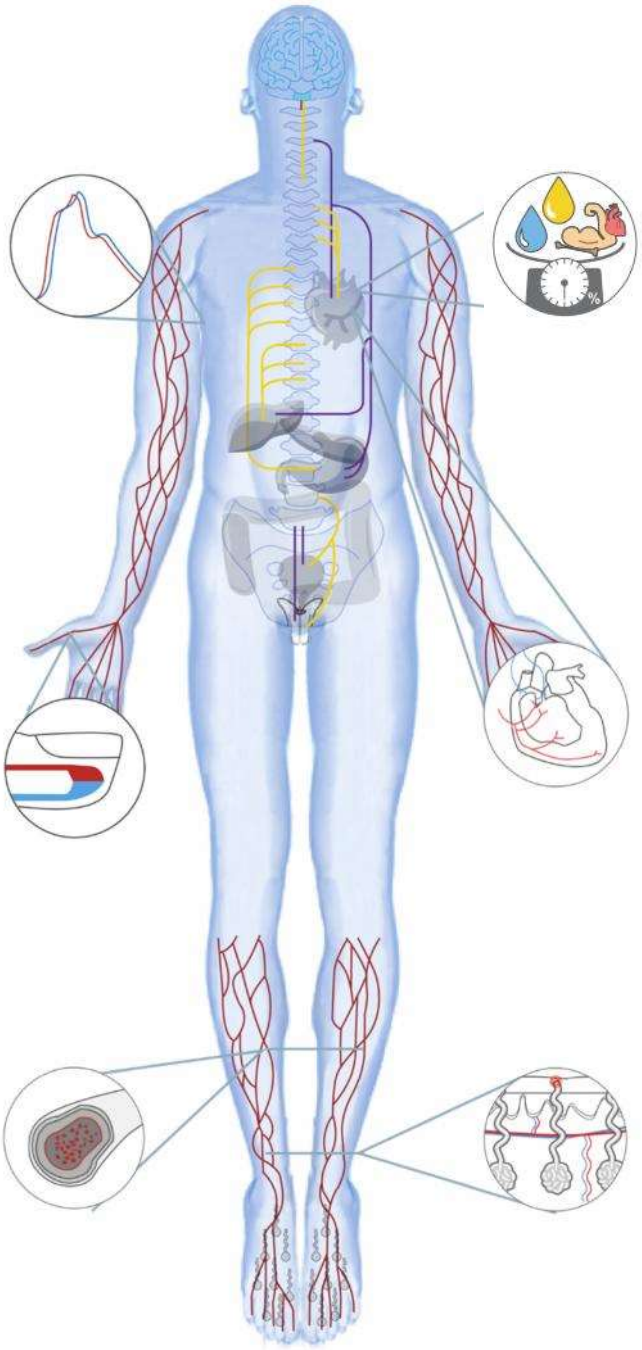
Monitoring and Treatment
Management of Hypertension

PHOTOPLETHYSMOGRAPHY

Mathematical Analysis of the pulse
Oximeter waveform and
Vasomotion analysis

ANKLE BRAKIAL INDEX (ABI) TOE BRACHIAL INDEX (TBI)

Peripheral Artery Disease (PAD)
Assessment , Blood Flow
Blockage or Calcification



HEART RATE VARIABILITY , VITAL SIGNS AND BODY COMPOSITION

Lifestyle Assessment

HRV AND CARDIAC AUTONOMIC REFLEX TESTs (CARTs)

Cardiac Autonomic
Neuropathy Assessment

SUDOMOTOR FUNCTION TESTS

Cholinergic Sympathetic
Vasodilatory and Quantitative
Sweat Response Assessments

MAIN SYMPTOMS OF AUTONOMIC NEUROPATHY AND VASCULAR DYSFUNCTION

- Fatigue Headache
- Dizziness
- Exercise intolerance
- Fainting
- Tingling in the toes or fingers
- Claudication
- Painful muscle cramping in the hips, thighs or calves when walking, climbing stairs or exercising.

POPULATION THAT SHOULD BE TESTED WITH TM-FLOW

Autonomic neuropathy and vascular dysfunction risk group in the USA

50+

Population over 50 years old with cardiovascular risk factors (Hypertensive, Overweight, Smoker,Diabetic)

70+

Everyone older than70

OVER 45 MILLION PEOPLE

ANYONE THAT FALLS IN THE RISK GROUP
SHOULD BE MEASURED WITH LD PRODUCTS

VISION

Our vision is to provide physicians with new tools that simplify complex procedures, such as Ankle Brachial Index (ABI) and Autonomic Nervous Systems Assessments, recommended by US and International Medical Associations. Our most recent innovation includes wireless transmission to increase patient and technician comfort. Our products offer a better, faster and easier approach to detect diabetes complications early.

MISSION

LD Technology's mission is to help physicians

1. Evaluate the cardiometabolic risk using a scoring system
2. Distinguish the cause of symptoms
3. improves the early detection and treatment management of vascular and autonomic nervous system complications resulting from diabetes and/or other chronic diseases, aging, and/or an unhealthy lifestyle.

TM FLOW SYSTEM

EARLY DETECTION OF AUTONOMIC, ENDOTHELIAL DYSFUNCTIONS
AND PERIPHERAL ARTERY DISEASE

TM Flow is a patented medical device data system integrating 3 technologies

TBL-ABI + SWEATC + OXI_W

Models C001 A001 and E001

TM FLOW INTENDED USE:

- Measurement of Ankle Brachial Indices for the screening of Peripheral Artery Disease.
- Measurement of the Galvanic Skin response related to the sympathetic cholinergic sudomotor function.
- Mathematical Analysis of the Photoplethysmography for assessing:
  - The autonomic nervous system via Heart Rate Variability Analysis at the rest and during the Ewing Tests.
  - The Endothelial function via the vasomotion anlysis using the the Photoplethysmography spectral Analysis.

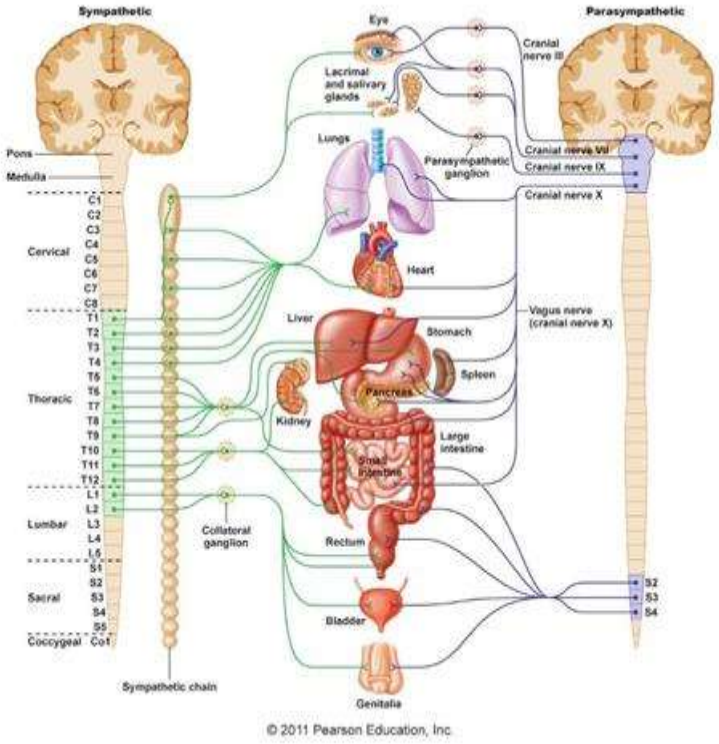
TM FLOW MAIN MARKERS:

VASCULAR ASSESSMENT
- Arterial stiffness and CASP
- Ankle Brachial Indices
- Toe Brachial Indices
- Endothelial Function:

AUTONOMIC ASSESSMENT
- Sudomotor Function Markers.
- Heart rate variability Analysis
- Cardiac Autonomic Reflex Tests: - Valsalva Ratio,
  - E/I Ratio,
  - K30/15 Ratio and
  - Systolic and diastolic Pressure Response to Standing.

LIFESTYLE ASSESSMENT
- Body composition
- Vital signs
- HRV analysis: Exercise capacity markers

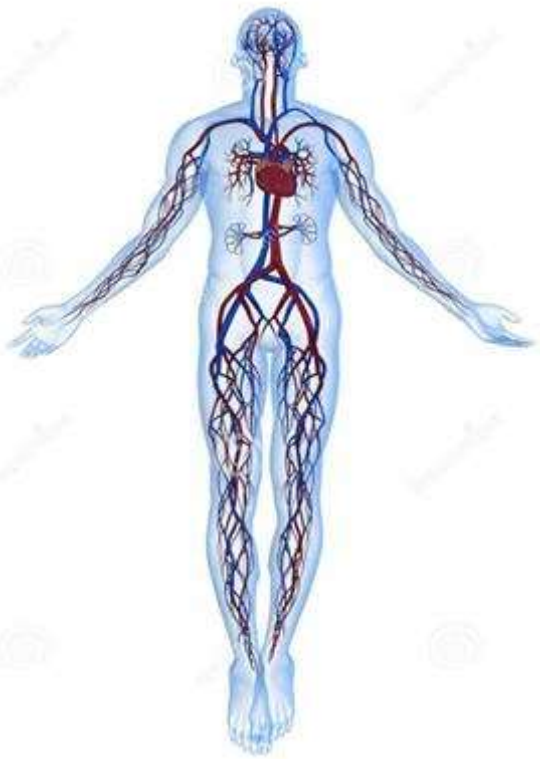
ANS AND ENDOTHELIAL FUNCTIONS: MAIN REGULATORY SYSTEMS



Functions of the autonomic nervous system

The autonomic nervous system controls internal body processes such as the following:

- Blood pressure
- Heart rate and breathing rates -
Body temperature
- Organ functions
- Metabolism (thus affecting body weight)
- The balance of water and electrolytes ....



Functions of the endothelium cells

The endothelium cells have a bidirectional effects (control and side effects) on ls the following:

- Inflammation (RCP)
- Blood flow
- Insulin resistance
- vascular tone
- Coagulation (fibrinogen)

WHY DO WE ASSESS ANS AND VASCULAR DYSFUNCTIONS ?

The assessments of the autonomic nervous system, endothelial function, and ankle brachial index (ABI) are well recognized tests to detect early complications in particular in diabetic patients, but also in almost all chronic diseases including virus (including the Covid-19) and germs infections. These assessments are recommended by U.S. and International Medical Associations [1,2]. Unfortunately, most of these assessments or exams are not routinely performed in daily clinical practice because of concerns about complex procedures, time consumption, and high level of difficulty in reading and/or interpreting exam reports.

- The TM-Flow System eliminates these concerns by offering an innovative medical device that provides physicians with new and easy to use tools that simplify complex procedures, significantly reduces the time required by technicians to perform the exams and offers easy to read and interpret exam reports with clinical guidance support which is backed by studies and peer reviews. Lastly, our most recent innovation includes wireless transmission to increase patient and technician comfort.

- Conventional medical exams (blood lab tests, Doppler, EKG, blood pressure measurements etc.) are commonly used to diagnose diseases, but these exam markers can be too narrowly used today in treatment management – e.g., Diabetes and high blood pressure. It is well understood that diabetes is a state marked by increased blood glucose levels, and the treatment is narrowly focused on reducing the blood lab test/s marker/s. The same narrow focus is true with Hypertension. The high blood pressure treatment is focused on increasing blood flow. However, it is not enough to focus on treatment that only reduces the disease diagnostic marker. Why? Because diabetes, high blood pressure or vascular disease are complex chronic diseases that negatively affect homeostasis by damaging the body's regulation functions.

- Homeostasis refers to stability, balance, or equilibrium within a cell or the body. It is an organism's ability to keep a constant internal environment. Homeostasis is an important characteristic of living things. Keeping a stable internal environment requires constant adjustments as conditions change inside and outside the cell. The adjusting of systems within a cell is called homeostatic regulation. Because the internal and external environments of a cell are constantly changing, adjustments must be made continuously to stay at or near the point (the normal level or range). Homeostasis can be thought of as a dynamic equilibrium rather than a unchanging state.

- Homeostatic regulation is adjusted by 2 main body networks: Autonomic Nerves and Endothelial Cells.

  . When the autonomic nervous system (ANS) and endothelial functions are properly working, the patient is in good health and has a high potential for recovery.

  . When one of the regulation's functions fail or is stressed beyond its genetic potential for various reasons ((inadequate lifestyle, aging, weak genetics) then disease may occur.

  . Lab tests show the damage of the regulation functions when the disease is already onset. By assessing the regulation functions, we could have early detection of a future potential disease when the treatment options can delay or reverse a disease.

  . The conventional exams cannot detect Cardiac Autonomic Neuropathy (CAN) or endothelial dysfunction symptoms, and patients suffering from these symptoms cannot be treated effectively.

  . When a disease is diagnosed, the treatment management should 1) control the disease diagnosis marker, but also 2) restore or maintain the regulations' functions: Autonomic nervous system and endothelial functions.

Therefore, the ANS and endothelial function must be assessed as the part of any patient health assessment or treatment follow up along with other conventional exams.

TM-FLOW SYSTEM OVERVIEW

TM-Flow is a Medical Device Data System which uses all four LD Technologies. .

TM-FLOW ASSESSMENTS. HOW AND WHY ?

ASSESSMENTS	HOW?	WHY? CLINICAL OUTCOMES
Cardiac Autonomic Neuropathy	Guidelines of the CAN Subcommittee of the Toronto Consensus Panel statement	CAN is a high -risk factor of CVD , and hypoglycemia (HbA 1c target) [4].
Sudomotor Dysfunction	Patented sequence of electrical stimulation	Early detection of C- Fiber Neuropathy and adapted treatment options.
Endothelial Dysfunction	Patented analysis of the PTG spectral analysis (vasomotion)	Insulin resistance Inflammation Thrombotic risk Vasodilation responses Blood flow
Ankle and Toe Brachial Indices	Synchronization of 4 Bluetooth BP devices and Volume Plethysmography analysis/ Toe plethysmography	Early detection of Peripheral Artery disease and treatment options
Lifestyle	Fat Mass, Vital signs and HRV markers	Visualization and evaluation of the lifestyle changes.
Cardiometabolic Risk Score [3]	Based on abnormal results of all the TM-Flow markers	Treatment follow up and early detection of micro and/or macrovascular complications.

TM-FLOW OUTCOMES BY SPECIALITY

Pain management Clinic and Neurology
Identify the cause of symptoms:
By assessing the Autonomic nerves and endothelial regulation, the TM-Flow identifies the cause of symptoms, such as chronic pain, Headaches, tingling or burning on the feet, claudication and lower extremity pain after exercise. Frequently, physicians encounter patients who have chronic disease or other comorbid conditions and symptoms. At times, differentiating vascular from neuropathic disorders can be difficult. It is imperative to distinguish between autonomic neuropathy and vascular disease because the treatments are quite different.

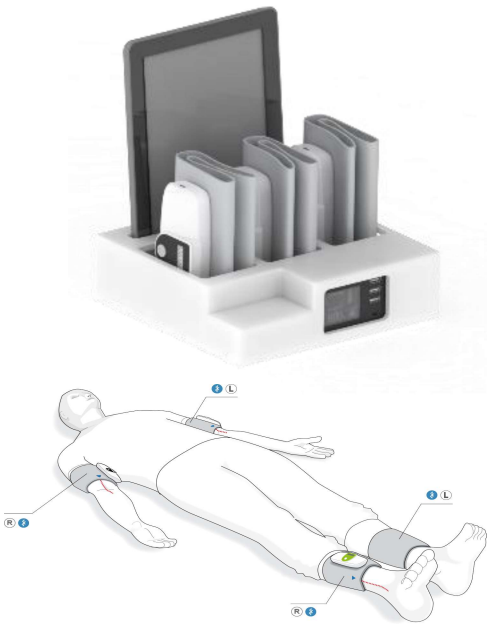
Cardiology
Early detection of atherosclerosis using the endothelial assessment [5] and Ankle and Toe Brachial Indices .
Hypertension treatment management using the estimated Central Aortic systolic pressure [6].

Endocrinology
- Target HbA1c: Since Cardiac Autonomic Neuropathy is recognized as a hypoglycemia risk factor, the TM-Flow Cardiac autonomic assessment can be used as a marker to Target HbA1c.
- Early detection of Diabetes complications to manage the diabetic treatments.

Internal medicine
Identify the main homeostatic regulations:
TM flow should identify the patient potential to maintain a healthy condition or recovery potential; the cause of symptoms not found by using conventional diagnostic methods - including dizziness, fatigue, gastrointestinal disorders, exercise intolerance, heat intolerance, genitourinary disorders, unawareness hypoglycemia , and early detection of cardiometabolic risk and its complications.

TBL-ABI SYSTEM Model C001

Volume Plethysmography: Ankle Brachial Index measurement



The TBL-ABI system is indicated for use on adult subjects at risk of having or developing peripheral arterial disease (PAD).

TBL-ABI system is intended for the rapid measurement of ankle-brachial pressure index (ABPI), or ankle-brachial index (ABI), and pulse volume recording (PVR)/ volume plethysmography in adults.

It is suitable for use in wound care assessment, for assessing symptomatic PAD, and as a screening device for PAD. It may also be used on patients with venous or arterial ulcers prior to the application of compression therapy.

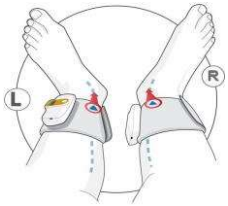
The ankle-brachial index (ABI) is the ratio of the systolic blood pressure measured at the ankle to that measured at the brachial artery.

BENEFITS OF TBL-ABI:

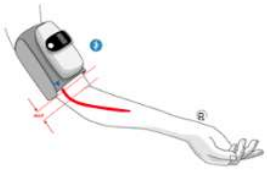
- Improvement of the technician and patient comfort: No tube or wire on the body . Measuring time 3 minutes .
- Reduction of the technician errors when preparing the patient for taking a measuremen - In addition to the color code of the cuffs, the devices are labelled "ARM", "RIGHT ARM", "LEFT ANKLE" and " RIGHT ANKLE".
  - All the cuffs are labelled with a blue arrow "DOWN", and therefore, the technician doesn't have to take care about the direction of the tubes.
- Dorsalis pedis and posterior tibial artery measurements
- 60 to 100 measurements per full charge.
- Charging dock that stops automatically when the battery is fully charged.

PATIENT SETUP:

Right and Left Dorsalis Pedis (DP) Artery Pressure



Left and Right Posterior Tibial (PT) Artery Pressure



Right Brachial Artery Pressure

Left Brachial Artery Pressure

OXI_W SYSTEM Model E001

SpO2%, HRV and Cardiac Autonomic Reflex Tests and Endothelial function

OXI_W INTENDED USE:

1. To spot check or monitor Oxygen saturation of arterial hemoglobin (SpO2%) and pulse rate.

2. To analyze the pulse waveform (Photoplethysmography or PTG) provided by the oximeter. It provides mathematical analysis of the input of the PTG using the first and second derivatives of the PTG values related to the microvascular condition.

3. To analyze the basic rhythms of the NN or RR intervals in heart rate from the PTG, both in the time domain and in the frequency domain (short time 5 minutes). It provides mathematical analysis of the heart rate variability values related to the autonomic nervous system function.

FEATURES :

- Photoplethysmography (PTG) analysis to assess the peripheral circulation.
- HRV (Heart Rate Variability) analysis both in the time domain and frequency domain to assess early ANS dysfunction.
- Ewing Tests analysis (Valsalva maneuver, deep breathing and K30/15 tests) to assess cardiovagal failure.

BENEFITS :

- Accuracy of the heart rate detection:

Comparing our algorithm using the first derivative of the photoplethysmography to EKG, the coefficient of correlation r=0.99.

- Accuracy of the HRV analysis:

According to the standard ANSI/AAMI EC57, our results follow the Input MIT-BIH database.

- Research and development i.e. clinical studies:

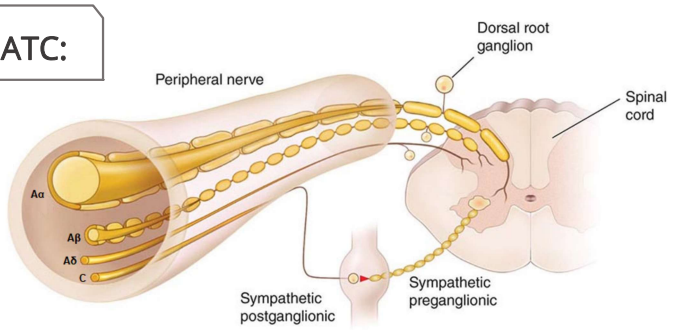
The PTG spectral analysis using OXI_W is patented.

SWEATC

Galvanic Skin Response

The SweatC is a galvanic skin response patented technology related to the sweat gland function . It uses the sympathetic skin response (SSR) method to assess the post ganglionic sudomotor function via foot skin disposable electrodes following a predetermined electrical stimulation and specific sequence of measurement
*The test is performed in the supine position on an exam table and the patient needs to be relaxed.

TARGET OF THE SUDOMOTOR TEST SWEATC:



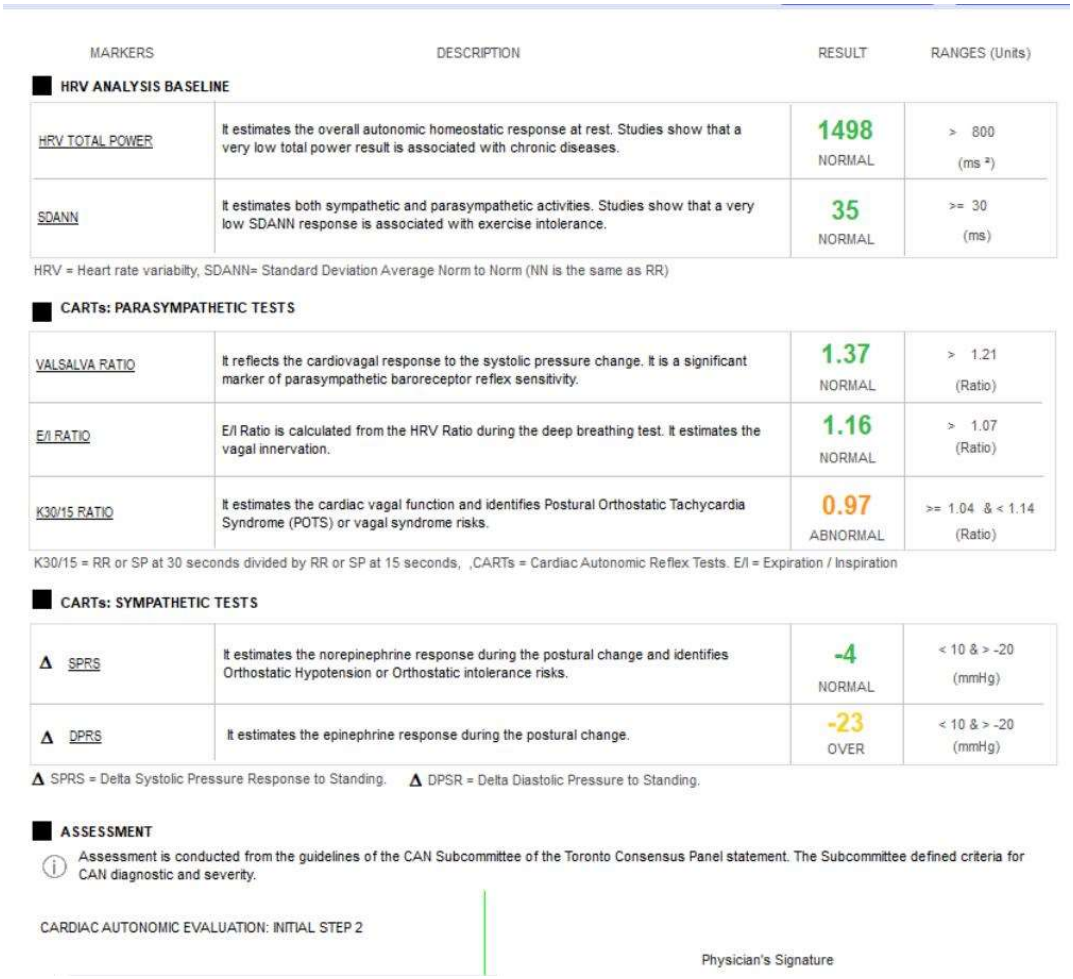
Peripheral distal Neuropathy symptoms may be caused by any dysfunction or damage of:
Peripheral motor nerve and /or Aα fiber (large fiber) and / or Aβ or Aδ (sensory nerve) and/or C-Fiber (Autonomic cholinergic sympathetic fiber controlling the sudomotor function) Used diagnostic tools:
1. The nerve conduction velocity studies are using to detect the Peripheral nerve dysfunction
2. The vibration tests are using to detect the Aα fiber dysfunction
3. The mono filament tests are using to detect the Aβ and Aδ fiber dysfunction. and
4. The sudomotor tests are using to detect the sympathetic Cholinergic (C)-Fiber dysfunction .The C-Fibers are the only small fiber unmyelinated . Therefore, they are not protected and usually should be the first one to be affected before the other myelinated nerves
5. The Epidermal Nerve Fiber Density (ENFD) test measures the density of the small sensory nerve fibers in the skin and the Sweat Gland Nerve Fiber Density (SGNFD) test measures the density of the small autonomic nerve fibers in the sweat glands.

REVIEW OF THE SUDOMOTOR TEST SWEATC:

The Sudomotor testing clinical data suggest it may be the most sensitive means to detect peripheral small fiber neuropathy (Low, et al.,2006).
Sudomotor function is controlled by part of the sympathetic nervous system (post sympathetic cholinergic fiber) and it relates to skin microcirculation and small demyelinated nerve fibers (C-Fibers). Microcirculatory disorders and Small fiber neuropathy could be the earliest stages of peripheral distal neuropathy in diabetic patients.
In addition, sudomotor dysfunction has been found in different diseases or as medication side effects such as cancer treatment, antihypertensive treatment (beta and alpha blockers and calcium antagonists), metformin treatment, vitamin deficiency, Parkinson's disease, AIDS, amyotrophic lateral sclerosis, hypothyroidism, kidney and liver diseases, alcoholism , Alzheimer's disease and Guillain-Barre syndrome. Traditional and recognized neurophysiologic measurements of sudomotor function include thermoregulatory sweat testing (TST), Quantitative Sudomotor Axon Reflex test (QSUART) using Acetylcholine injection and sympathetic skin response (SSR).
Sudomotor dysfunction is used to define a decreased sudomotor activity. Impaired response of autonomic C-Fiber (low level or absence or acetylcholine production) or of capillaries vasodilation (low or absence of response to Nitric Oxide) lead to sudomotor dysfunction. The autonomic C-fiber response (Sweat Peak) is measured at the positive electrode. The vasodilation response (NO Peak) is measured at the negative electrode.
DISPOSABLE ELECTRODE BENEFITS:
Increased reproducibility (no ageing of the electrodes), Prevent cross contamination, No disinfection and low maintenance ., Prevent biased measurement from the temperature and Prevent biased measurement from the size of the feet

AUTONOMIC NERVOUS SYSTEM (ANS) ASSESSMENT

CARDIAC AUTONOMIC TEST REPORT



MARKERS	DESCRIPTION	RESULT	RANGES (Units)
HRV ANALYSIS BASELINE			
HRV TOTAL POWER	It estimates the overall autonomic homeostatic response at rest. Studies show that a very low total power result is associated with chronic diseases.	1498 NORMAL	> 800 (ms ²)
SDANN	It estimates both sympathetic and parasympathetic activities. Studies show that a very low SDANN response is associated with exercise intolerance.	35 NORMAL	>= 30 (ms)

HRV = Heart rate variabilty, SDANN= Standard Deviation Average Norm to Norm (NN is the same as RR)

CARTs: PARASYMPATHETIC TESTS			
VALSALVA RATIO	It reflects the cardiovagal response to the systolic pressure change. It is a significant marker of parasympathetic baroreceptor reflex sensitivity.	1.37 NORMAL	> 1.21 (Ratio)
E/I RATIO	E/I Ratio is calculated from the HRV Ratio during the deep breathing test. It estimates the vagal innervation.	1.16 NORMAL	> 1.07 (Ratio)
K30/15 RATIO	It estimates the cardiac vagal function and identifies Postural Orthostatic Tachycardia Syndrome (POTS) or vagal syndrome risks.	0.97 ABNORMAL	>= 1.04 & < 1.14 (Ratio)

K30/15 = RR or SP at 30 seconds divided by RR or SP at 15 seconds, ,CARTs = Cardiac Autonomic Reflex Tests. E/I = Expiration / Inspiration

CARTs: SYMPATHETIC TESTS			
Δ SPRS	It estimates the norepinephrine response during the postural change and identifies Orthostatic Hypotension or Orthostatic intolerance risks.	-4 NORMAL	< 10 & > -20 (mmHg)
Δ DPRS	It estimates the epinephrine response during the postural change.	-23 OVER	< 10 & > -20 (mmHg)

Δ SPRS = Delta Systolic Pressure Response to Standing. Δ DPSR = Delta Diastolic Pressure to Standing.

ASSESSMENT

Assessment is conducted from the guidelines of the CAN Subcommittee of the Toronto Consensus Panel statement. The Subcommittee defined criteria for CAN diagnostic and severity.

CARDIAC AUTONOMIC EVALUATION: INITIAL STEP 2

Physician's Signature

CARDIAC AUTONOMIC NEUROPATHY READING GUIDANCE

NORMAL RANGE No abnormal test result.

INITIAL STEP

Only one abnormal CART result (Step 1) or at least one HRV d one CART are abnormal or orthostatic intolerance (Step2)

DEFINITE STEP

2 abnormal CARTs tests are abnormal(Step1) or at least one HRV and 2 CARTs tests are abnormal (Step2).

ADVANCED

3 or more abnormal results or if Postural Orthostatic Tachycardia Syndrome (POTS)or vasovagal syndrome are detected.

SEVERE CAN:

3 or more abnormal results plus Systolic Pressure Response to Standing (SPRS) greater than 20 mmHg (Orthostatic Hypotension OH diagnosis)

CARTs are the "gold" standard clinical tests for cardiovascular autonomic neuropathy. The CAN Subcommittee of the Toronto Consensus Panel statement defined criteria for CAN definition and severity[5,6]. For the early CAN diagnosis only one abnormal CART result (among the 7 tests: 5 CARTs and HRV tests in time- and frequency-domains) is sufficient; definite CAN should be confirmed by 2 or 3 abnormal tests and severe CAN can be indicated by development of OH.[10,11,12,13]

CARDIAC AUTONOMIC NEUROPATHY (CAN) DIAGNOSTIC MARKERS

HRV MARKERS

The heart rate is measured by the First and second derivative (a-wave) of the photoplethysmography comparing to the EKG heart rate measurement, It achieved an overall average sensitivity for a-waves detection 100% and a positive predictability was 99.88%. over 27 records, containing a total of 3370 heart beats [7} HRV markers can be used for early stages of Cardiac autonomic neuropathy.

The heart rate variability (HRV) markers are measured in 2 minutes-time.
The ARIC study [8] validated the HRV 2 minute- time measurement and the normal ranges associated with this measurement time.

- TOTAL POWER [8]
  Total Power is calculated by the spectral analysis of the heart rate variability in 2 minutes at rest. It estimates the overall autonomic homeostatic response at rest .Studies showed that a very low Total Power was associated with underlying chronic diseases.

- SDANN STANDS FOR STANDARD DEVIATION AVERAGE NORMAL TO NORMS (RR INTERVALS) [8]

  SDANN is calculated from the time domain of the HRV in 2 minutes at rest. It estimates both sympathetic and parasympathetic system activities Studies showed that a low SDANN was related to exercise intolerance.

CARDIAC AUTONOMIC REFLEX TESTS (CARTs) MARKERS

PARASYMPATHETIC MARKERS

The Parasympathetic responses tests are based on heart rate or RR intervals Ratio during the maneuvers .

- VALSALVA RATIO [9]
  It is calculated from the HRV Ratio during the Valsalva maneuver. It reflects the cardiovagal response to the systolic pressure change. It is one of the best marker of parasympathetic baroreceptor reflex response.

- E/I RATIO STANDS FOR EXPIRATION/INSPIRATION RATIO [9]
  E/I Ratio is calculated from the HRV Ratio during the deep breathing test. It estimates the vagal innervation response to the deep breathing.

- K30/15 RATIO STANDS FOR HEART RATE AT 30 SECONDS / HEART RATE AT 15 SECONDS RATIO [9]
  K30/15 Ratio is calculated from the HRV Ratio during a change of posture (lying down to stand up). It estimates the cardiac vagal response to the postural change and it also assesses the Post Postural orthostatic Syndrome (POTS) or vagal syndrome.

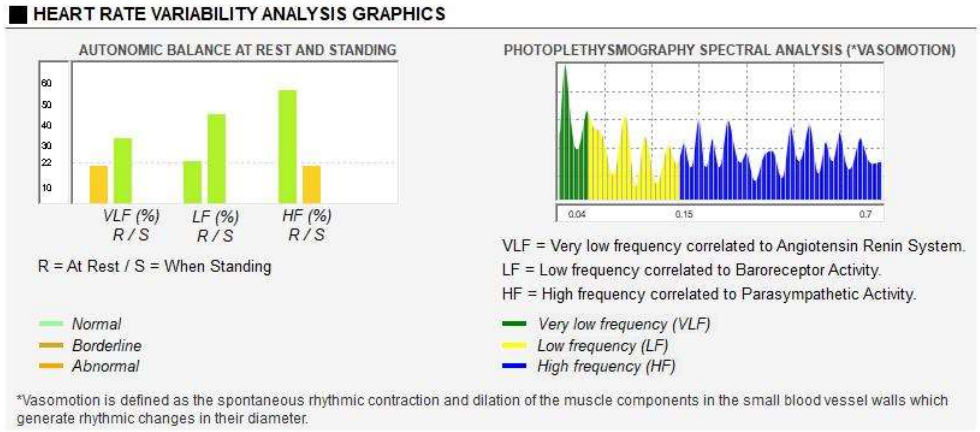
SYMPATHETIC MARKERS

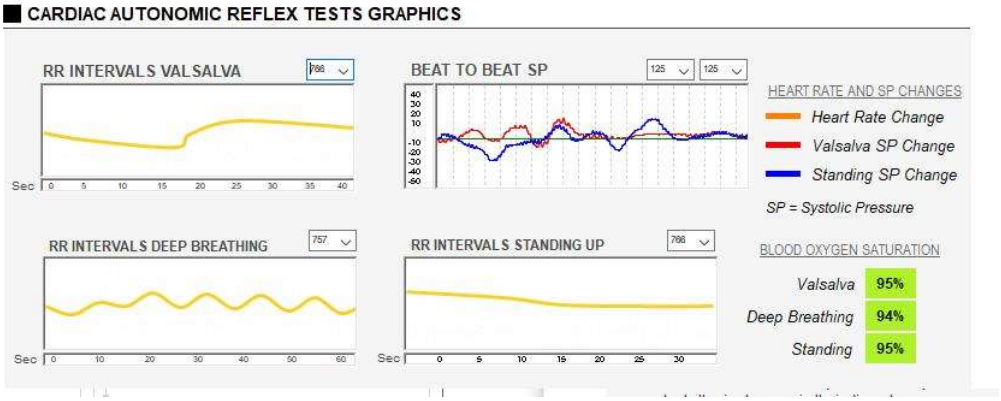
The Sympathetic responses tests are based on blood pressure changes during the maneuvers.

- DELTA SPRS STANDS FOR DELTA SYSTOLIC PRESSURE RESPONSE AT STANDING [4]
  SPRS is calculated from the delta of the systolic pressure while standing up minus the systolic pressure at rest . It estimates the norepinephrine sympathetic response to standing and it also assesses the Orthostatic Hypotension (OH) or Orthostatic intolerance.

- DELTA DPRS STANDS FOR SYSTOLIC PRESSURE RESPONSE AT STANDING [9]
  DPRS is calculated from the delta of the diastolic pressure while standing up minus the diastolic pressure at rest. It estimates the epinephrine sympathetic response to standing

CARDIAC AUTONOMIC GRAPHICS





DISCLAIMER: *All results should be considered within the clinical context of the patient's case, history, symptoms, known diagnosis, findings from other diagnostics studies, current medications, treatment plan and therapies. The interpretation of the results and treatments is the responsibility of the medical doctor.*

CARDIAC AUTONOMIC NEUROPATHY SUGGESTED TREATMENT.

CAN treatment is a complex process, that includes: Lifestyle modification; reducing IR; intensive glycemic control; treatment of DLP, antioxidants, vitamins, correction of vascular endothelial dysfunction, prevention and treatment of thrombosis and OH. The new possible perspective areas of CAN treatment are administration of thromboxane A2 blockers and prostacyclin analogues, PDE5 inhibitors, ALA, ω-3 PUFAs, DGLA and the combined prescription of ALA, DGLA and ω-3 PUFAs. In addition, the combined administration of ALA, ω-3 PUFAs and benfotiamine promotes the reduction of chronic inflammation markers and an increase of HRV parameters that might be useful in preventing the development and progression of CAN. Development of OH is associated with severe or advanced CAN, and the prescription of nonpharmacological and pharmacological (in the foreground midodrine and fludrocortisone acetate) treatment methods are necessary.[10,14]

NON-PHARMACOLOGIC TREATMENT

Progressively increase the level of physical activity. Total Power can be improved with Vitamin D supplements and increased levels of physical activity.
Reduce or discontinue drugs that potentially induce orthostatic hypotension (i.e. Beta-Blockers).
Avoid hot environments, carbohydrate rich meals, and alcohol.
Avoid prolonged recumbence during the daytime.
Sit on the edge of the bed for some minutes after recumbence.
If OH : Take at least 8g of salt daily
Drink water from 2 to 2.5 l /day
Sleep with elevated head (20-30 cm) At the onset of pre-synpocal symptoms, perform the following maneuvers: leg crossing with tension to the thigh, buttock and calf muscle -party position- bending over forward, squatting.

PHARMACOLOGIC TREATMENT

Thromboxane A2 blockers and prostacyclin analogues, PDE5 inhibitors, ALA, ω-3 PUFAs, DGLA and the combined prescription of ALA, DGLA and ω-3 PUFAs and benfotiamine
Drugs that increase intravascular volume: OH treatment.
Fludrocortisone acetate 0.1-0.2 mg /day
Erythropoleitin 25-75 U per kilo 3 times a week
Desmopressin acetate nasal spray (10- 40 µg /day) or per os (100 -800 µg/day) Pressor agents:
Milodrine 2.5-10 mg t.i.d
Yohimbine 5.4 mg/day Pseudoephedrine 30mg t.i.d Ergotamine/ caffeine 1 mg/100 mg/day Before a meal
Droxidopa 600 mg t.i.d

SUDOMOTOR TESTS REPORT

C-FIBER RESPONSE: SWEAT PEAK (mV)

FOOT	DESCRIPTION	RESULT	RANGES (Units)
LEFT FOOT	Sweat Peak is calculated from the peak amplitude of the galvanic skin response at the positive electrode. It estimates the density of the active cholinergic nerve fiber according to the sweat production response. Our Study shows that a poor sweat peak response is correlated to peripheral neuropathy symptoms.	1024 NORMAL	>= 832 & < 1100 (mV)
RIGHT FOOT		986 NORMAL	>= 832 & < 1100 (mV)

MICROCIRCULATORY RESPONSE : NO PEAK (mV)

FOOT	DESCRIPTION	RESULT	RANGES (Units)
LEFT FOOT	Nitric Oxide (NO) Peak is calculated from the peak amplitude of the galvanic skin response at the negative electrode. It estimates the postganglionic cholinergic sympathetic vasodilatory response induced by electrical stimulation. Our study shows that the NO peak is associated with retinopathy and Homocysteine lab tests.	1062 NORMAL	>= 832 (mV)
RIGHT FOOT		947 NORMAL	>= 832 (mV)

ASSESSMENT

Based on the SweatC clinical studies.

SWEAT RESPONSE EVALUATION: NORMAL RANGE

MICROCIRCULATORY RESPONSE: NORMAL RANGE

Physician's Signature

SUDOMOTOR TESTS READING GUIDELINES

ABBREVIATED MEANING

According to the SweatC clinical studies.

The Post ganglionary cholinergic sympathetic activation releases acethycholine which induces vasodilation and a microcirculatory response (Peak NO for each foot), and then the C-Fiber activation induces a sweat response (Sweat Peak for each foot).

SWEAT PEAK RESPONSE

SWEAT PEAK RESPONSE			
1100	832	768	512
NO PEAK			
832	768	640	512

Reading guidelines:

1. NO Peak and or both NO Peak and Sweat Peak are reduced is a sign of Post ganglionary cholinergic failure according to the low microcirculatory response.

2. When NO Peak is normal and Seat Peak is reduced (boderliine of moderate) is a sign of reduced C-Fiver activity.

3. SweatC <= 512 mV is a sign of small fiber neuropathy.

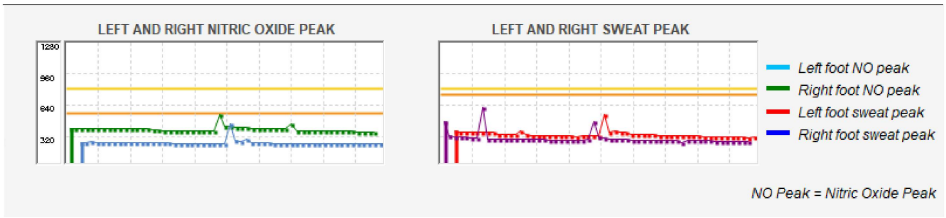
4. SweatC >100 mV is a sign of small fiver inflammation.

ASSESSMENT ACCORDING TO THE GUIDELINES

• SWEAT RESPONSE EVALUATION: SMALL FIBER NEUROPATHY
Absence of sudomotor response in right foot.refer to neurologist.
We suggest alpha-lipoic acid supplement.

• MICROCIRCULATORY RESPONSE: SEVERE
Very low vasodilatory response in left foot.

SUDOMOTOR TESTS GRAPHICS



The Lewis at al. study [15]shown that the NO peak marker can be useful for detecting microvascular diseases.

The marker NO Peak inversely correlated with BUN ($\rho = -0.41$, $p < 0.0001$), homocysteine ($\rho = -0.44$, $p < 0.0001$), fibrinogen ($\rho = -0.41$, $p < 0.0001$),

Receiver operating characteristic curve of NO Peak. NO Peak had a sensitivity of 88% and specificity of 68% (cut-off score ≤ 64) with an area under the curve (AUC) = 0.81 (SE = 0.04; 95% CI = 0.72, 0.88) and an asymptomatic significance <0.0001).

Sweat Peak inversely correlated with the severity of symptoms on the peripheral neuropathy scale ($\rho = -0.56$, $p < 0.0001$).

Sudomotor testing assesses the postganglionic cholinergic sympathetic vasodilatory response to predetermined stimulation which induces the activation of the cholinergic fiber and sweat release

The postganglionic cholinergic sympathetic vasodilatory response (PCSVR marker NO peak) is evaluated at the negative electrode and the density of the active cholinergic fiber according to the sweat production response (marker Sweat Peak) is evaluated at the positive electrode. The measured responses are displayed in voltage (mV). Normal ranges were established on more than 20,000 Healthy subject databases.

- LEFT AND RIGHT FOOT NO PEAK STANDS FOR NITRIC OXIDE PEAK [15]
  NO Peak is calculated from the peak amplitude of the galvanic skin response at the negative electrode. It estimates the postganglionic cholinergic sympathetic vasodilatory response .Our study shows that NO Peak was correlated to the retinopathy and homeocysteine level.

- LEFT AND RIGHT FOOT SWEAT PEAK [15]
  Sweat Peak is calculated from the peak amplitude of the galvanic skin response at the positive electrode . It estimates the quantitative sweat response to the post gamglionic cholinergic sympathetic stimulation . Our study shows that Sweat Peak was correlated to the peripheral neuropathy symptoms.

SUDOMOTOR DYSFUNCTION SUGGESTED TREATMENT

- SWEAT PEAK Increased. C-Fiber inflammation detected.
  if symptoms : Anti-inflammatory cream is suggested. If no symptoms: Preliminary research suggests alpha- lipoic acid may be helpful in slowing or even reversing neuropathy
- SWEAT PEAK Mildly to moderately Decreased value for Sweat Peak Marker (>= 512 and < 832 mV): C- decreased.
  Treatment of any underlying causative etiology is likely to be the most effective treatment when possible.
  If symptoms: Capsaicin cream may be helpful.
- SWEAT PEAK. No sudomotor response (< 512 mV): C-Fiber damage detected.

Treatment of any underlying causative etiology of a small fiber neuropathy is likely to be the most effective treatment when possible. Symptomatic medications : Refer to Neurologist. Gabapentin frequently is utilized as a first-line treatment of neuropathic pain.

- NO PEAK . Decreased. Microcirculatory disorders detected If no contraindications, B12 is suggested and/or Pycnogenol . Supplementary exams for Kidney and Eyes are suggested.

NEAR INFRARED LIGHT. LD Technology marketed the The Near Infrared Device (NID).It is intended for use for Pain relief by improving micro- circulation and this improvement will be show immediately after a session of 30 minutes. According the severity of the small fiber neuropathy , the treatment might includes 5 to 10 sessions . (contact LD Technology +1 305 3799900 or contact@ldteck.com for further details) .

IMPLANTABLE SPINAL CORD STIMULATION.

TM-FLOW VASCULAR ASSESSMENT

ENDOTHELIAL FUNCTION MARKERS

Endothelial function controls:

1. Insulin Resistance marker.
2. Blood flow.
3. Pro-thrombotic .
4. Pro-inflammatory.
5. Vascular tone.

TM-Flow assess those 5 markers using the patented analysis of the vasomotion or flow motion.

PTG-TP STANDS FOR PHOTOPLETHYSMOGRAPHY TOTAL POWER

It is calculated from the spectral analysis of the oximeter waveform (Photoplethysmography or PTG). PTG -TP is the sum of the area of the 3 frequencies of the spectral analysis. Our clinical study showed that PTG-TP has a high specificity and sensitivity to detect insulin resistance compared with the HEC gold standard measurement [16,17]

PTG VLFi STANDS FOR PHOTOPLETHYSMOGRAPHY VERY LOW FREQUENCY INDEX

It is calculated from the spectral analysis of the oximeter waveform (Photoplethysmography or PTG). PTGVLFi is the division of the VLF area of the spectral analysis and the average of the right and left NO Peak measured by the SweatC . Our clinical study showed that PTG-VLFi is correlated with blood fibrinogen level. [15]

PTGi STANDS FOR PHOTOPLETHYSMOGRAPHY INDEX

It is calculated from the spectral analysis of the oximeter waveform (Photoplethysmography or PTG). PTGi is the sum of the amplitude of the 3 frequencies of the spectral analysis. Our clinical study showed that PTGi is correlated with the heart's artery blood flow. [5,18]

STRESS INDEX

It is calculated from the spectral analysis of the oximeter waveform (Photoplethysmography or PTG). It is the Amplitude of the PTG VLF frequency. Our clinical study showed a good correlation with the C-Reactive protein lab test [15].

PTG SD RATIO STANDS FOR PHOTOPLETHYSMOGRAPHY SECOND DERIVATIVE RATIO.

It is the ratio of the point da / ba of the PTG second derivative . Studies using vasodilator medications showed that the PTG SD ratio is correlated to the vascular tone [19, 20].

Arteriolarvasomotionis an important mechanism for controlling microvascular perfusion. Vasomotion refers to rhythmic oscillations in arteriolar diameter over time. Spontaneous diameter oscillations in arterioles produce significant changes invascular resistance, capillary perfusion, and flowwith the latter often referred to as "flowmotion".

ENDOTHELIAL FUNCTION REPORT

ENDOTHELIAL FUNCTION

Markers	Description	Results	Ranges (Units)
STRESS INDEX	*Correlated to C-Reactive Protein*	252 BORDERLINE	< 180 (Vs)
PTG INDEX	*Correlated to Heart Artery Blood Flow*	28.8 BORDERLINE	>= 40 (V/s)
PTG SD RATIO	*Correlated to Small Artery Tone*	0.49 BORDERLINE	<= 0.42 (Ratio)
PTG TP	*Correlated to Insulin Resistance*	414 DETECTED	<= 406 (ms2)
PTG VLF INDEX	*Correlated to Fibrinogen Lab Test*	37 BORDERLINE	<= 32 (V.s/mS)

ENDOTHELIAL FUNCTION READING GUIDANCE

According to the PTG Spectral Analysis clinical studies and American Hypertension Association regarding the arterial stiffness.The normal ranges of the component of the vasomotion have been established from the clinical studies [5].

NORMAL RANGE: No abnormal and no borderline test results

.

ACCEPTABLE: No abnormal and 1 or more borderline test results.

INITIAL STEPS Only one abnormal and less than 2 borderline marker results (initial step 1) or one abnormal and at least 2 borderline marker results (initial step 2).

DEFINITE STEPS. Only 2 abnormal marker results (definite step 1) or 2 abnormal and one borderline marker results (definite step 2)

DEFINITE. Only 2 abnormal and more than 1 borderline marker results.

ADVANCED OR SEVERE
Three or more abnormal results

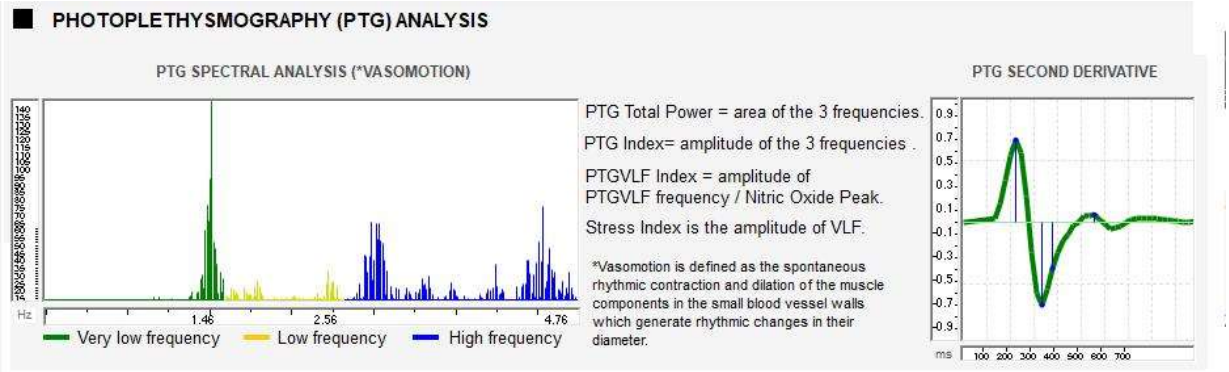
The PTG spectral analysis provides oscillation called vasomotion or flowmotion.

Vasomotion is defined as the spontaneous rhythmic contraction and dilation of the muscle components in the small blood vessel walls which generate rhythmic changes in their diameter.

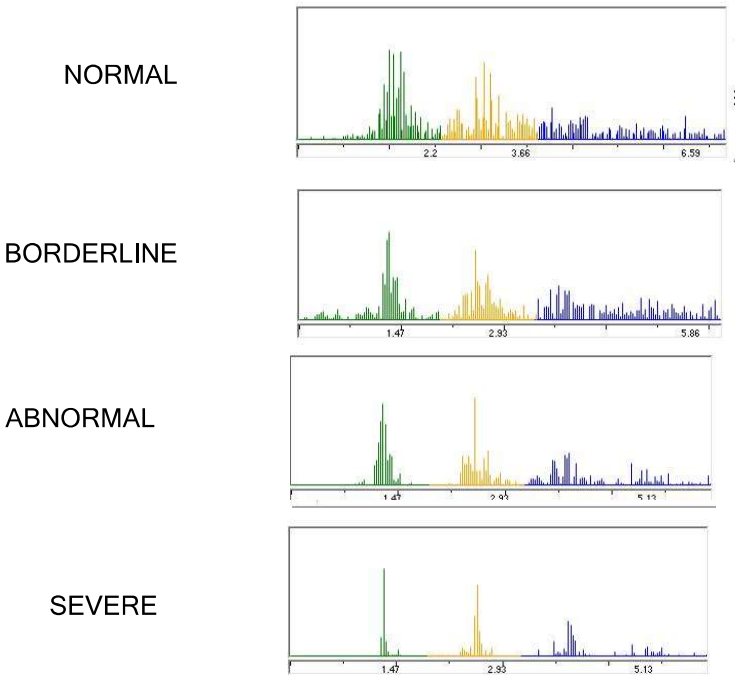
Vasomotion could be measured by the Lase Doppler Flowmetry (LDF) as well as the photoplethysmography (PTG) using the spectral analysis of the generate wave of the microcirculatory blood volume changes.

The findings that ACh iontophoresis increased amplitude of the oscillation around 0.009–0.02 Hz to a greater extent than sodium nitroprusside iontophoresis [15,17,37] or than ischemia [27] suggested a role of the endothelium in the control of this flowmotion component. This role was confirmed by the observation that L-NMMA abolished this difference [15].

ENDOTHELIAL MARKERS GRAPHICS



VASOMOTION GRAPHS TYPES



ENDOTHELIAL DYSFUNCTION SUGGESTED TREATMENT

1. PTG-TP Increased Marker

Since the PTG -TP is a marker of insulin resistance.

If fasting glucose < 126 mg/dL (7 mmol/L) and Hb1Ac < 6.5:

The recommendation is 1) a diet with low carbs, low glycemic index and load. 2) progressively increase the level of physical activity, and 3) take the suggested supplements of Chromium and/or Cinnamon. If Fasting glucose > 126 mg /dL (7 mmol/L) and Hb1Ac > 6.5: Metformin is suggested.[21]

2. Stress Index is correlated to CRP. It is suggested that taking 1000mg daily of Vitamins C could reduce CRP.[22].
3. PTG VLFi is correlated to the fibrinogen level. It is suggested that taking the hydroalcoholic extract of Curcuma longa could reduce the fibrinogen level. [23]
4. SDPTG ratio or baPWV increased. For arterial health, aerobic exercise reduces arterial stiffness in young and healthy individuals. However, in line with the diminished capacity of older individual's arteries to respond to exercise , the suggestion would be to increase potassium intake and restrict sodium (i.e., inherent features of a low-sodium DASH diet). Of the dietary supplements studied, fish oil so far has the most robust evidence of benefit. Fermented milk products, along with some polyphenols and antioxidants, also show promise for modification of arterial properties.[24]
5. PTGi is correlated to Blood Flow: PTGI could be improved by activated protein C and antithrombin, vitamin C, or steroids. [25]

LARGE ARTERY STIFFNESS AND BLOOD PRESSURE ANALYSIS REPORT

LARGE ARTERY STIFFNESS

PERIPHERAL AIx	It is calculated from the volume plathysmography, and it estimates the aortic arterial stiffness.	62 NORMAL	< 75 (Ratio)
LEFT baPWV	It is the rate which the blood pressure waves moves down the vessel. It estimates the left leg artery stiffness.	1473 NORMAL	< 1550 (cm/s)
RIGHT baPWV	It is the rate which the blood pressure waves moves down the vessel. It estimates the right leg artery stiffness.	879 NORMAL	< 1550 (cm/s)

baPWV = Brachial Ankle Pulse Wave Velocity, AIx = Augmentation Index

ARM BLOOD PRESSURE ANALYSIS

ESTIMATED CENTRAL AORTIC SP.	It estimates the SP at the aorta during the ejection phase using the volume plethysmography analysis.	100 NORMAL	< 130 (mmHg)
DELTA RIGHT / LEFT ARM	It asseses the subclavian or axillary stenosis risk.	14 NORMAL	< 20 (mmHg)

SP = Systolic Pressure.

LARGE ARTERY STIFFNESS MARKERS

– RIGHT AND LEFT baPWV STANDS FOR BRACHIAL ANKLE PULSE WAVE VELOCITY [26] baPWV is calculated from the volume plethysmography at the arm and ankles, and by the height of the patient. It is a measure of lower extremity artery stiffness.

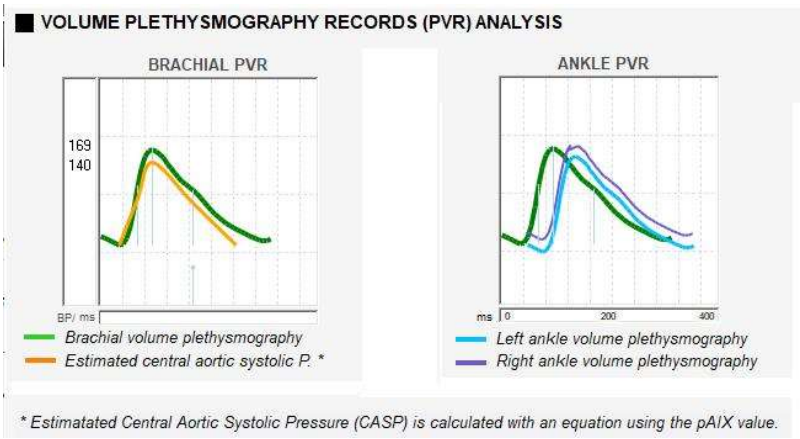
- PERIPHERAL AIx OR (pAIx) STANDS FOR PERIPHERAL AUGMENTATION INDEX [27]
  pAIx is a ratio calculated from the blood pressure waveform. It is a measure of wave reflection and aortic arterial stiffness. The Peripheral Augmentation Index (pAIx) is commonly accepted as a measure of the enhancement augmentation) of central aortic pressure by a reflected pulse wave.

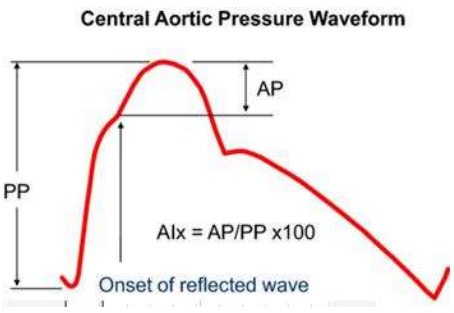
ARM BLOOD PRESSURE ANALYSIS

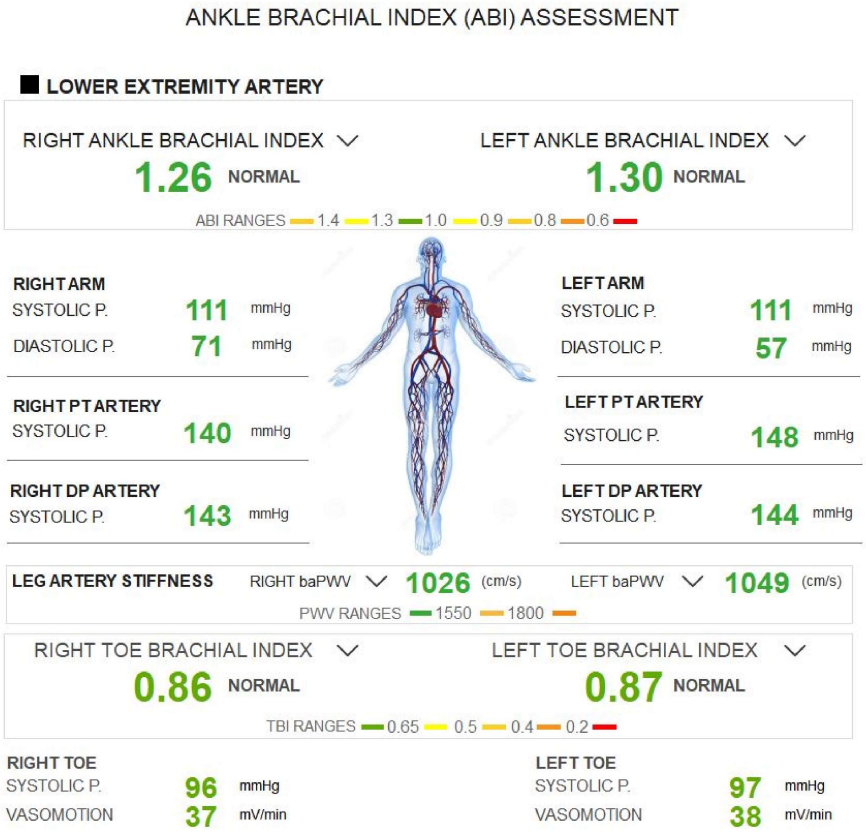
- CASP STANDS FOR CENTRAL AORTIC SYSTOLIC PRESSURE [6]
  Our technique for assessing CASP uses cuff-based volume plethysmography analysis at the brachial artery. Longitudinal observations provide greater support for the potential value of central pressure measurements. In the REASON Study, regression of LVM was more strongly related to the change in central pressure compared with brachial pressure and, after adjustment, only central pressure remained predictive. Similar observations were made in a sub-study of ASCOT.

- DELTA RIGHT AND LEFT ARM [28]: It is a marker of subclavian or axillary stenosis risk.

LARGE ARTERY STIFFNESS AND BLOOD PRESSURE ANALYSIS GRAPHICS







- Eight studies assessed the diagnostic performances of an ABI <=0.90 to detect >= 50% stenosis identified by imaging methods, including color duplex ultrasound, magnetic resonance. All these studies found reasonably high specificity (83%–90%).

ABI READING GUIDANCE

According to the 'Management of Patients with Peripheral Artery Disease' published by the Journal of the American College of Cardiology and amplitudes from volume plethysmography records analysis.

DIAGNOSTIC BASED ON ANKLE BRACHIAL INDEX RESULTS

NORMAL RANGE: from 1.0 to 1.30

PRE-NON-COMPRESSIBLE: from 1.31 to 1.39

ACCEPTABLE: from 0.91 to 0.99

BORDERLINE: from 0.90 to 0.81

DEFINED: from 0.80 to 0.61

SEVERE: Lower than 0.61

NON-COMPRESSIBLE: Greater than 1.39

- Ouriel et al Aboyans et al reported an average ABI decrease of 5% from resting to post-exercise values after treadmill exercise in healthy people compared with 20% in patients with PAD.

TBI READING GUIDANCE

According to the 'Management of Patients with Peripheral Artery Disease' published by the Journal of the American College of Cardiology and vasomotion from volume photoplethysmography records analysis.

DIAGNOSTIC BASED ON TOE BRACHIAL INDEX RESULTS

NORMAL RANGE: >= 0.65

ACCEPTABLE: from 0.64 to 0.50

BORDERLINE: from 0.49 to 0.40

DEFINED: from 0.39 to 0.21

SEVERE: <= 0.20

VASOMOTION READING GUIDANCE

NORMAL RANGE: >= 35mV/min Normal toe microcirculation

ACCEPTABLE: < 35 mV/min and >= micro 25 V/min toe blood flow mildly reduced

ABNORMAL: < 25 mV/min and >= 15 micro V/min toe blood flow moderately reduced

SEVERELY REDUCED: < 15 mV/min toe blood flow severely reduced

LOWER EXTREMITY LARGE ARTERY MARKERS

According to the 'Management of Patients with Peripheral Artery Disease' published by the Journal of the American College of Cardiology and amplitudes from volume plethysmography records analysis.

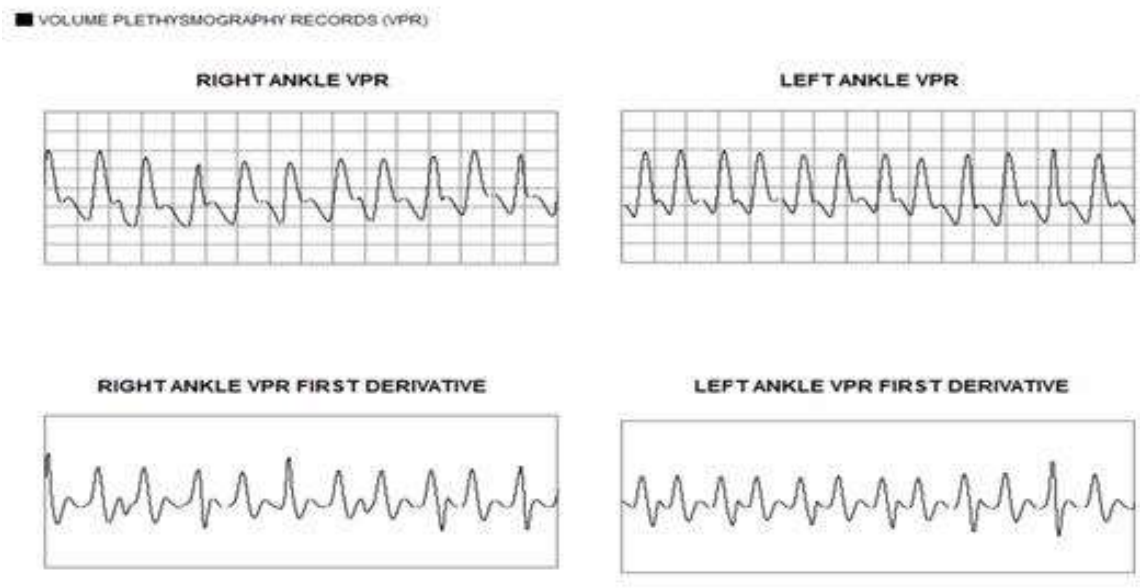
- ABI STANDS FOR ANKLE BRACHIAL INDEX [1]
  ABI is calculated from the lowest systolic pressure (dorsalis Pedis and Posterior tibial artery) at each ankle divided the highest systolic pressure at arms. It is accepted as a diagnosis of the Peripheral Artery Disease (PAD) at the lower extremity and a marker of atherosclerosis.

- TBI STANDS FOR TOE ANKLE INDEX
  TBI is calculated from the Right and Left Toe systolic pressure divided the highest systolic pressure at arms. It is useful when the ABI results are greater or equal than 1.3 to determine if there is artery blockage and also to assess the toe microcirculation blood flow.

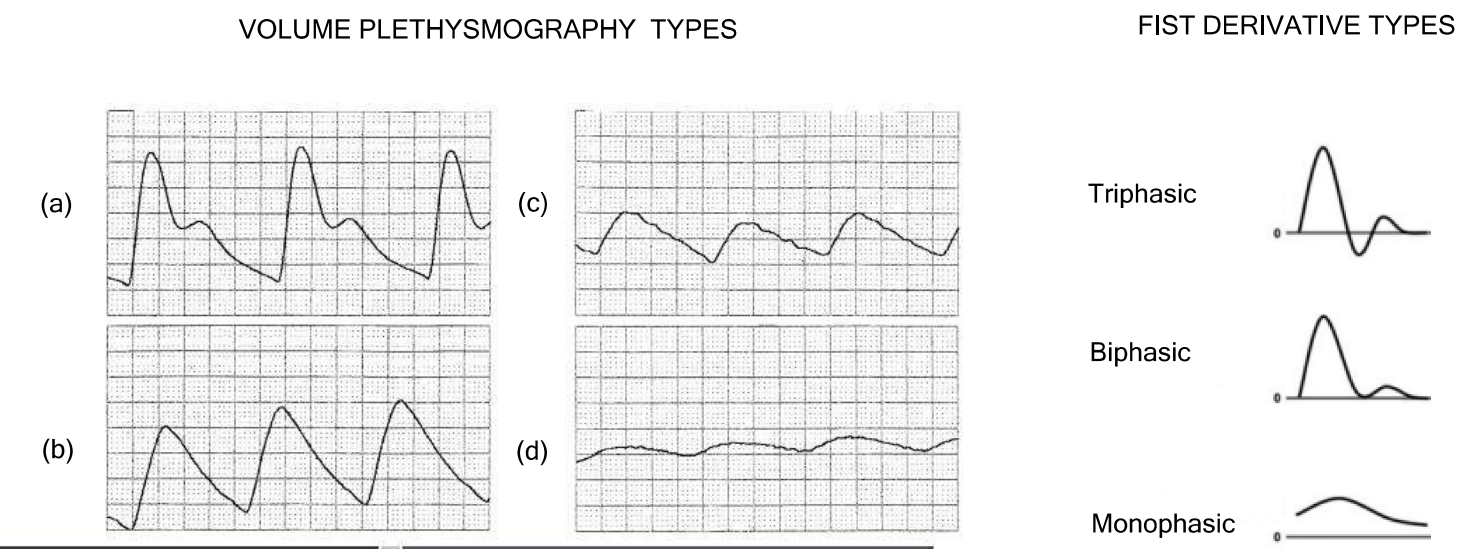
=

- VASOMOTION
  The vasomotion is displayed from the PTG Spectral Analysis. It is an estimation of the Toe blood flow.

VOLUME PLETHYSMOGRAPHY RECORDS (VPR) GRAPHICS



VOLUME PLETHYSMOGRAPHY AND FIRST DERIVATIVE READING



(a) Type 1 normal VPR demonstrating a rapid upstroke, sharp peak, dicrotic notch, and concave-up distal waveform. The first derivative is triphasic
(b) Type 2 VPR with a slow rise time, flattened peak, absent dicrotic notch, and concave-down distal waveform.The first derivative is biphasic
(c) Type 3 VPR with a slow rise time, rounded peak, low high wave. The first derivative is monophasic.
(d) Type 4 VPR with a very slow rise time, rounded peak, very low high wave. The first derivative is monophasic.

TM-FLOW LIFESTYLE ASSESSMENT

LIFESTYLE REPORT

LIFESTYLE ASSESSMENT MARKERS

VITAL SIGNS AFFECTING EXERCISE CAPACITY

Markers (Units)	Description	Results	Ranges (Units)
HEART RATE	*Cardiac Cycles / Minute*	68 NORMAL	> 50 and < 85 (bpm)
SpO2	*Blood Oxygen Saturation*	96 NORMAL	>= 94 (%)
SYSTOLIC P.	*Left Arm Maximum Arterial Pressure*	213 SEVERE	<= 140 (mmHg)

HRV ANALYSIS MARKERS AFFECTING EXERCISE CAPACITY

rMSSD	*Correlated to Exercise Recovery Index*	23 ABNORMAL	> 35 (ms)
LF/HF	*Sympathetic Activity at Rest*	0.83 NORMAL	> 0.6 and < 2 (ratio)
SDANN	*Correlated to Exercise Tolerance*	19 ABNORMAL	>= 40 (ms)

FAT LEVEL

Markers (Units)	Description	Results	Ranges (Units)
BODY FAT MASS	*(Fat Mass / Total Weight) * (100)*	31 SEVERE	< 21 (%)

ENDOTHELIAL FUNCTION MARKERS AFFECTING NUTRITION

STRESS INDEX	*Correlated to Inflammation*	343 BORDERLINE	< 180 (Vs)
PTG SD AI RATIO	*Correlated to Arterial Stiffness*	-0.05 SEVERE	<= -0.60 (Ratio)
PTG TP	*Correlated to Insulin Resistance*	622 ABNORMAL	<= 406 (ms2)
PTGR	*Correlated to Blood Flow*	25.6 ACCEPTAB...	>= 40 (mV/min)

GSR MARKERS AFFECTING NUTRITION

WORST NO PEAK	*Correlated to Oxidative Stress*	460 SEVERE	>= 832 (mV)

The lifestyle is assessed using 12 markers: markers affecting exercise capacity and markers affecting nutrition. Each markers is scored as Normal= 0 , Borderline= 1 and abnormal or severe= 2. The final lifestyle or wellness score displays on the overview page is calculated as a percent from 0 to 20%.

GOOD LIFESTYLE:
Wellness score >= 18%

ACCEPTABLE:
Wellness score < 18% & >8%

BORDERLINE:
Wellness score > 16% & > 12%

POOR:
Wellness score <= 12% & >8%

VERY POOR:
Wellness score <= 8%

LIFESTYLE MARKERS

EXERCISE CAPACITY MARKERS

- rMSSD STANDS FOR ROOT MEAN SQUARE OF THE SUCCESIVE DIFFERENCE
  rMSSD is calculated from the time domain of the HRV in 2 minutes at rest. It estimates the parasympathetic system activity Studies showed that a low rMSSD was related to a longer exercise recovery [30].

- LF/HF STANDS FOR LOW FREQUENCY / HIGH FREQUENCY RATIO [8]
  LF/HF is calculated by the spectral analysis of the HRV at rest. It estimates the adrenergic sympathetic system predominance and it might be correlated to mental stress [30].

VITAL SIGNS

- SPO2 %
  It estimates the blood oxygen saturation. An SpO2% result that SpO2 too low (<= 90%) can limit the possibility of moderate and vigorous exercise (> 3 METs).

- SYSTOLIC PRESSURE
  High systolic pressure can limit the possibility of moderate and vigorous exercise (> 3 METs) -

- HEART RATE
  Marker of bradycardia or tachycardia. Tachycardia at rest can limit the possibility of moderate and vigorous exercise (> 3 METs).

FAT MASS MARKER [6]:

It is an estimate of the percentage of fat / total weight.

TM-FLOW ACCURACY

To compare the products 'accuracy to the gold standard, we must go to each result of the TM-Flow according to our clinical studies.

1. CMR Score: At 120 minutes, the correlations between the OGTT (Gold standard for the diabetes diagnostic) and CMRS were: r = 0.56 (p = 0.004) for glucose, r = 0.53 (p = 0.006) for insulin, and r = 0.58 (p = 0.002) for insulin C-peptide. The CMRS had a sensitivity of 92% and specificity of 83% to differentiate diabetic patients and control group patients.

2. Sudomotor function
   - The sudomotor response marker NO Peak had a sensitivity of 88% and a specificity of 68% (Area Under the Curve = 0.81, p < 0.0001) to detect retinopathy. The NO Sweat Peak response marker inversely correlated with lab tests (Gold standard for the microvascular diagnostic) BUN (ρ = −0.41, p < 0.0001), homocysteine (ρ = −0.44, p < 0.0001), fibrinogen (ρ = −0.41, p < 0.0001).
   - The sudomotor response marker Sweat Peak inversely correlated with the severity of symptoms on the peripheral neuropathy scale (Gold standard for the small fiber neuropathy diagnostic) at ρ = −0.56, p < 0.0001.

3. Cardiac Autonomic Neuropathy. We use the gold standard and guidelines from the CAN Subcommittee of the Toronto Consensus Panel statement (using Heart rate variability and Ewing tests).

4. Stress Index correlated with CRP (gold standard to detect inflammation) at ρ=0.40, p< 0.0001

5. PTGi had a sensitivity of 86.1 % and specificity of 87.2 % to detect coronary Heart disease using coronary angiography (Gold standard for the coronary heart disease diagnostic).

6. PTG VLFi correlated with fibrinogen (gold standard for the coagulation disorder diagnostic) at ρ=0.43, p<0.0001.

7. PTG TP. The ROC curves showed that the most relevant cut-off to the whole study group was a PTG -TP > 406.2. This cut-off had a sensitivity = 95.7%, specificity = 84,4% and the area under the ROC curve (AUC) = 0.929 for identifying insulin resistance measured with the hyperinsulinemia euglycemic clamp (Gold standard for the insulin resistance diagnostic). All AUC ROC curves analysis were significant (p < 0.0001).

8. ABIs and SA Amplitudes: Comparison of our results to the Doppler method (Gold standard for the Peripheral artery disease screening) revealed a very good agreement between both methods in terms of clinical relevance: concordance index of 0.88 (95% CI: from 0.76 to 0.9

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