



LD Technology

MAKING A DIFFERENCE

CHRONIC CARE MANAGEMENT

# AUTONOMIC NERVOUS SYSTEM AND VASCULAR FUNCTION ASSESSMENTS

## BLOOD PRESSURE AND ARTERIAL STIFFNESS ANALYSIS

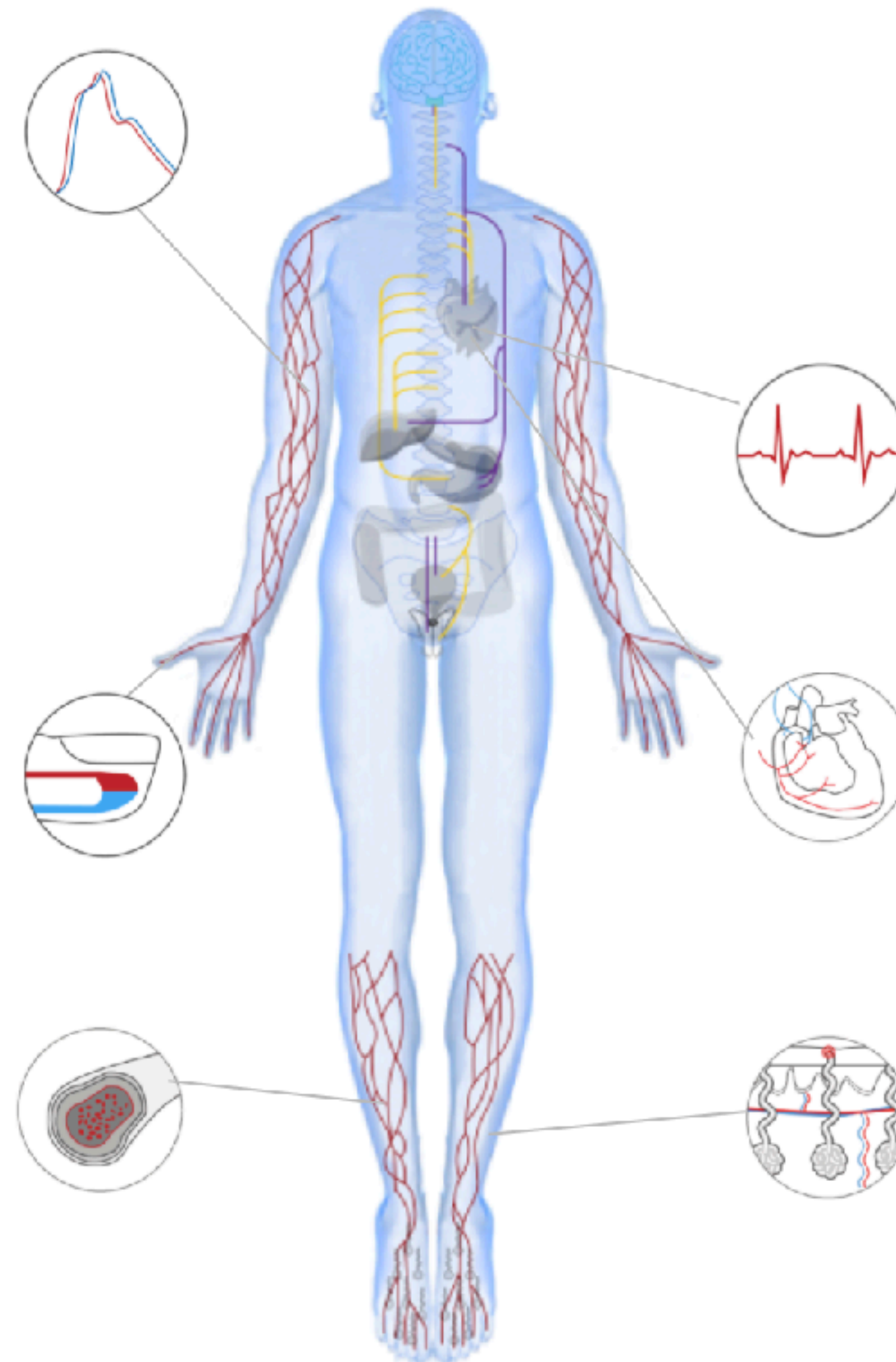
Monitoring and Treatment  
Management of Hypertension

## PHOTOPLETHYSMOGRAPHY

Mathematical Analysis of the pulse  
Ox waveform and Vital signs

## ANKLE BRAKIAL INDEX (ABI)

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



## HEART RATE VARIABILITY (HRV)

Cardiac Autonomic Dysfunction  
and Fitness Assessment

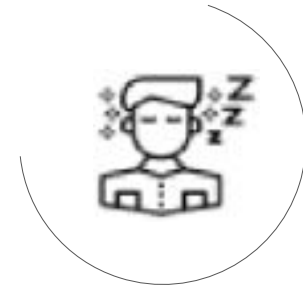
## CARDIAC AUTONOMIC REFLEX TESTs (CARTs)

Cardiac Autonomic challenges tests and  
Cardiac Autonomic Neuropathy  
Assessment

## SUDOMOTOR FUNCTION TESTS

Skin Microcirculation and Sweat Peak  
response. Sudomotor Assessment

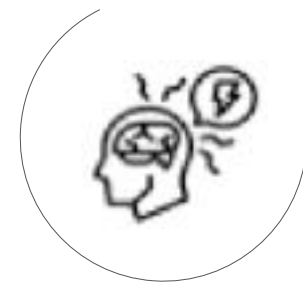
# MAIN SYMPTOMS OF AUTONOMIC NEUROPATHY AND VASCULAR DYSFUNCTION



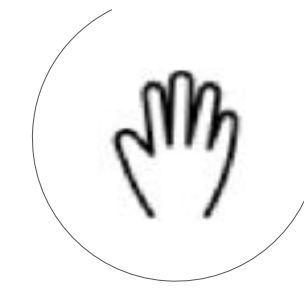
Fatigue



Fainting



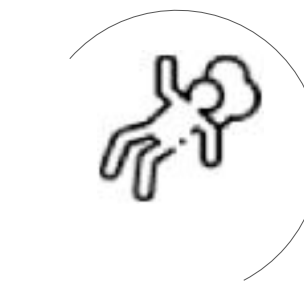
Headache



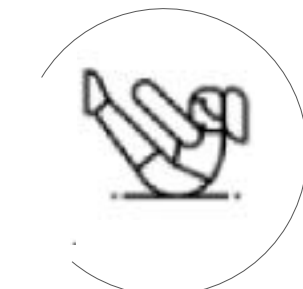
Tingling in the toes or fingers



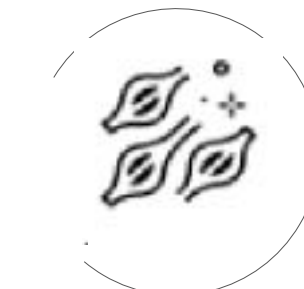
Dizziness



Claudication



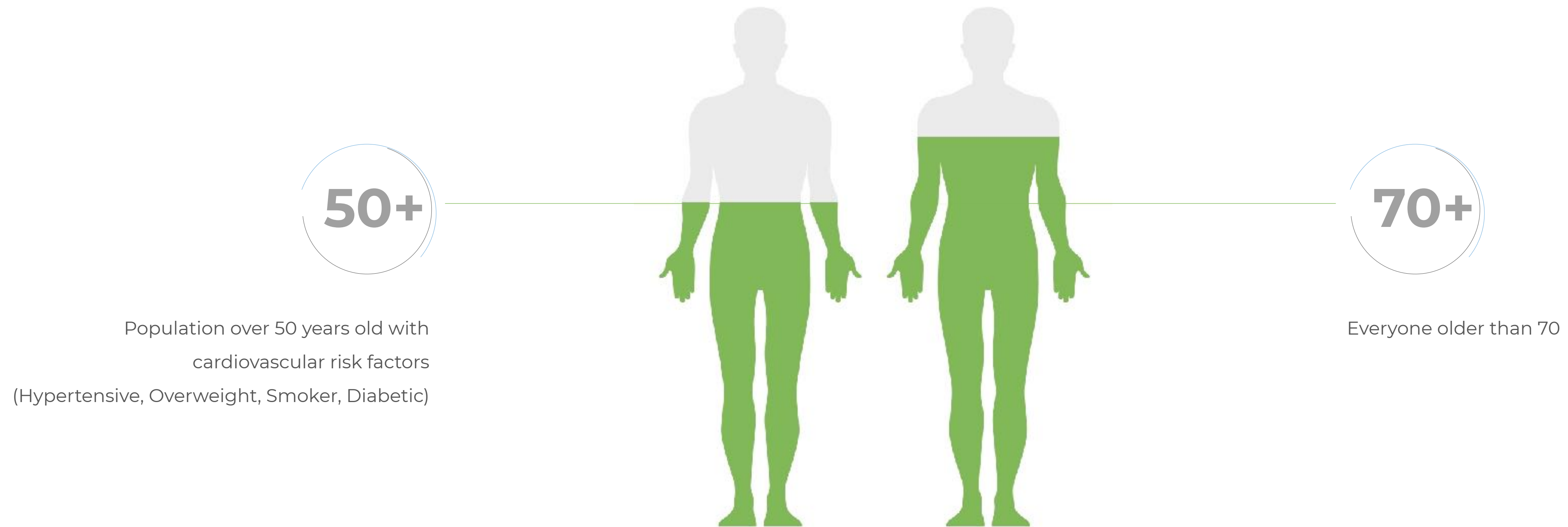
Exercise intolerance



Painful muscle cramping in the hips, thighs or calves when walking, climbing stairs or exercising.

# POPULATION THAT SHOULD BE TESTED WITH LD PRODUCTS

**Autonomic** neuropathy and vascular dysfunction  
risk group in the USA



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) endothelial function 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 manage the chronic diseases.

## MISSION

LD Technology's mission is to help physicians

1. Manage the chronic diseases and related treatments affecting the vascular and autonomic nervous systems.
2. Distinguish the cause of symptoms
3. **improves the early detection and treatment management of vascular and autonomic nervous system** complications resulting from chronic diseases, aging, and/or an unhealthy lifestyle.  
**If there is no early diagnosis, then there is no timely treatment.**



LD Technology  
MAKING A DIFFERENCE

# PRODUCT CATALOG

The LD Technology products are patented and therefore, there is not equivalent device on the US Market



No Human  
Error



Clear  
Reports



Accurate  
Results



Results  
overview



Simultaneous  
measurement

**CHRONIC DISEASE CARE MANAGEMENT  
EARLY DETECTION OF COMPLICATIONS**

The logo consists of the text "TM FLOW" in a bold, green, sans-serif font, centered within a large, light blue circle. The circle has a thin blue outline and a slightly lighter blue fill. The text is positioned in the upper right quadrant of the circle.

**TM FLOW**



Price under request for  
distributors or users

TM Flow is a medical device data  
system integrating 3 technologies

**TBL-ABI + SWEATC + OXI\_W**

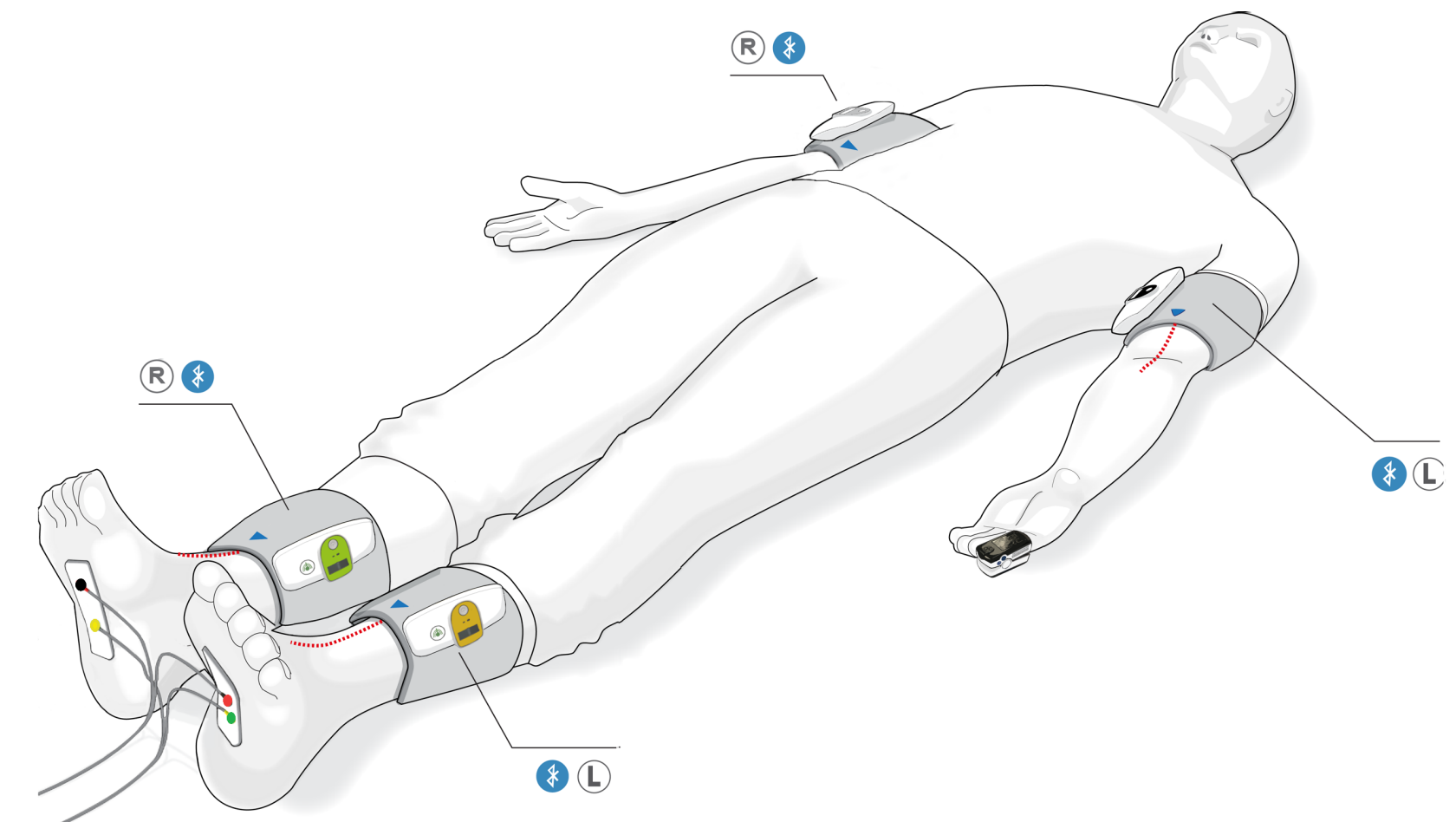
Models C001 A001 and D001



## TM FLOW FEATURES:

The TM-Flow is a patented medical device  
with the following features:

- Measurement of Ankle Brachial Indices for  
the screening of Peripheral Artery Disease.
- Measurement of the Galvanic Skin response related to  
the 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 Photoplethysmography (PTG)  
Analysis.

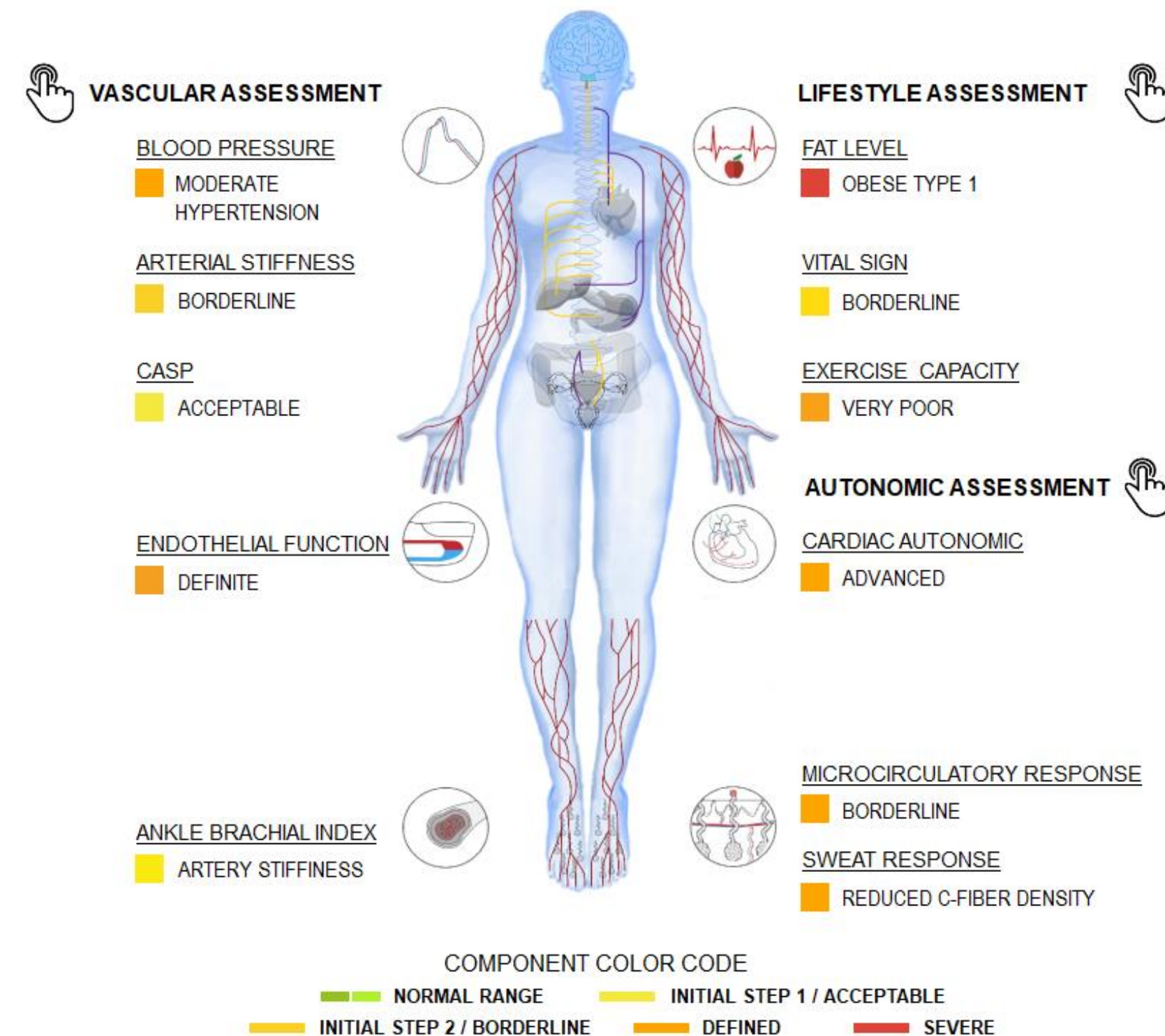






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distributors or users

## TM FLOW RESULT OVERVIEW



## TM FLOW USABILITY.

- Measurement guidelines with illustrations and voice and timer guidance ( 7–10-minute test)
- Overview Scoring
- Diagnostic Charts and 2 visits follow ups.
- Editable Comments for saving time on patient report.
- Interpretation of the results : Marker's description and color-code results and diagnosis guidelines based on abnormal and borderline results
- Overview Diagram and markers
- Markers Trends all visits follow ups.
- Bluetooth transmission enhance the technician and patient comfort



**ADAPTED TO HEALTH  
PROFESSIONAL NEEDS**



**PAD SERIES**



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distributors or users



**NEUROLOGY**  
**Autonomic Nervous System Assessment**

Sudomotor test & Cardiac  
Autonomic Neuropathy assessment.



**CARDIOLOGY**  
**Vascular Assessment**

Peripheral artery stiffness  
Blood Pressure Analysis &  
Ankle and toe Brachial  
Indices



**PODIATRY**  
**Lower Extremity Assessment**

Sudomotor test &  
Ankle brachial Indices

**Ankle Brachial Index and  
Volume Plethysmography:**  
Peripheral Artery Disease (PAD )  
Assessment

**TBL-ABI  
Model  
C001**



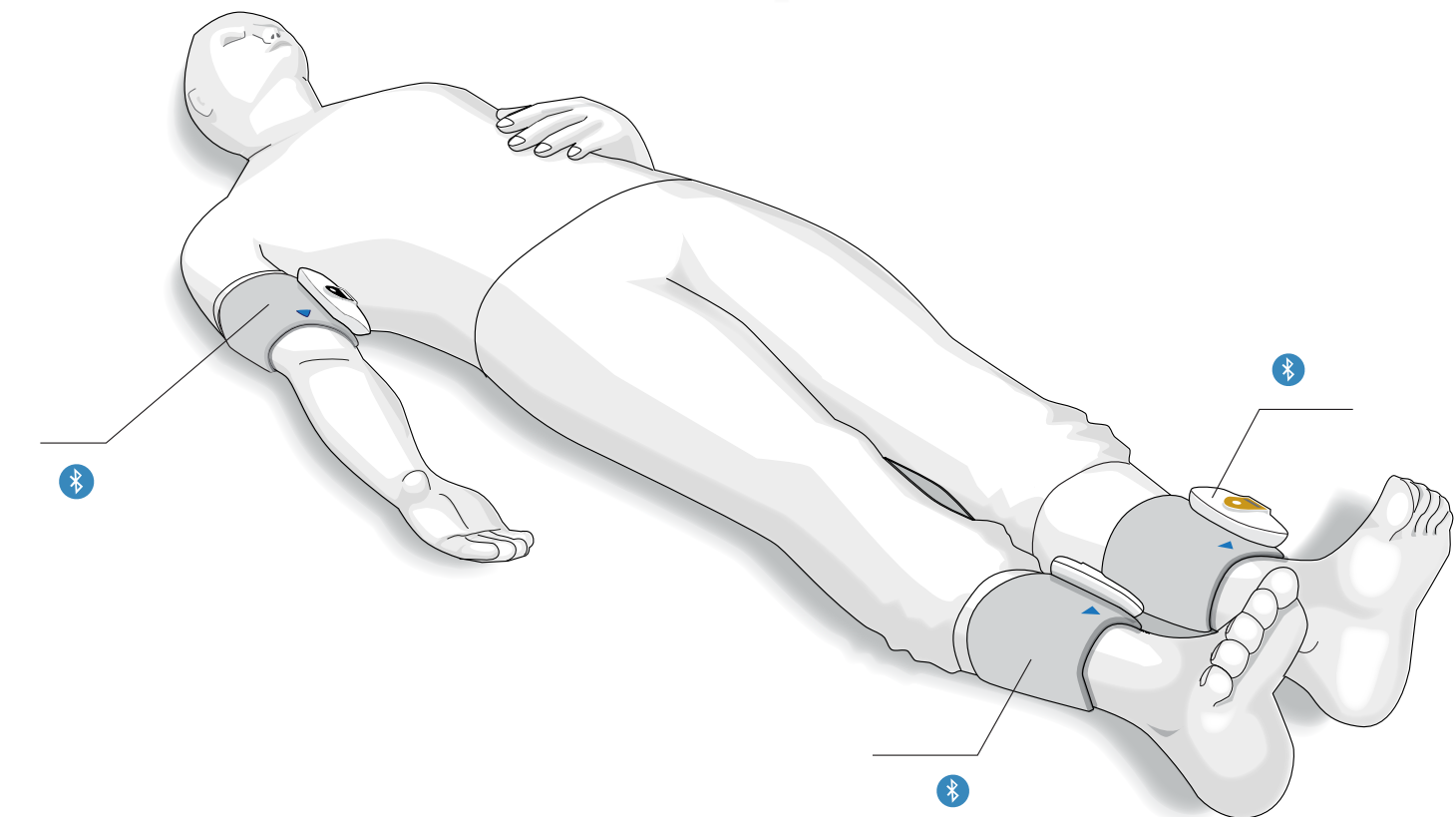
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**The TBL-ABI system** is indicated for use on adult subjects at risk of having or developing peripheral arterial disease (**PAD**).

**TBL-ABI system** is intended for the rapid measurement of anklebrachial 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 lower systolic blood pressure measured at each ankle to the highest systolic pressure measured at the right and left arm.

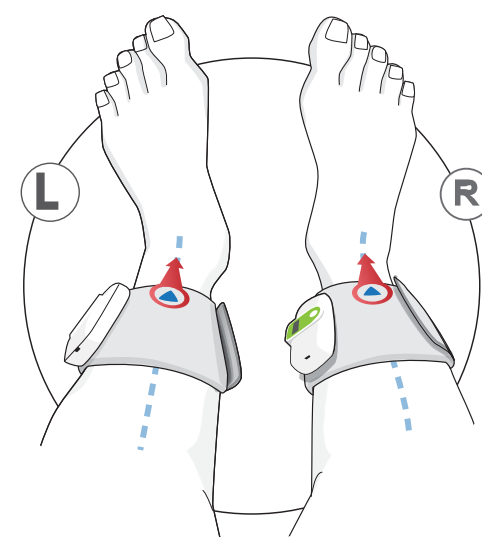




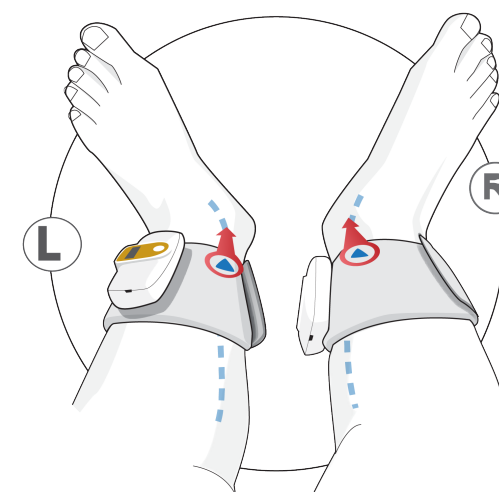
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## ADVANTAGES OF TBL-ABI

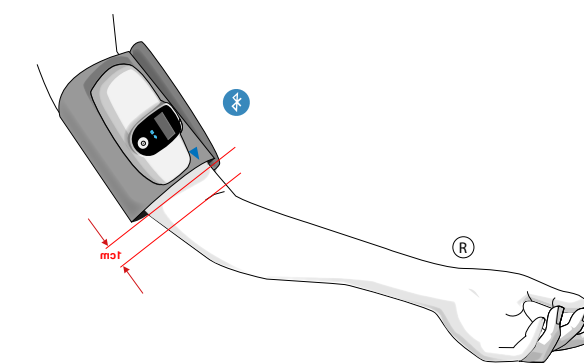
- Improvement of the patient comfort: No tube or wire on the body.
- Reduction of the technician errors when preparing the patient for taking a measurement:
  - In addition to the color code of the cuffs, the devices are labelled "ARM ", "RIGHT ARM ", "LEFT ANKLE" and " RIGHT ANKLE".
  - All the cuffs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



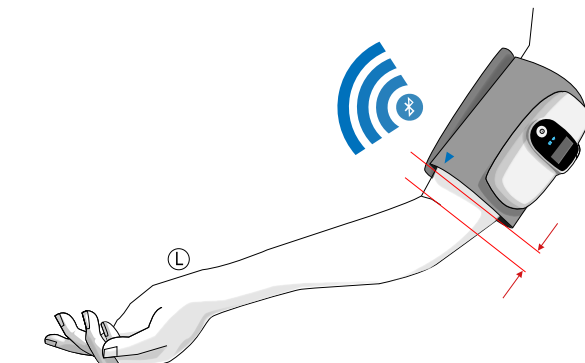
Right and Left Dorsalis  
Pedis (DP) Artery Pressure



Left and Right Posterior  
Tibial (PT) Artery Pressure



Right brachial  
Artery Pressure



Left Bracial  
Artery Pressure



**Photoplethysmography:**  
HRV  
CARDIAC AUTONOMIC REFLEX TESTS  
ENDOTHELIAL FUNCTION



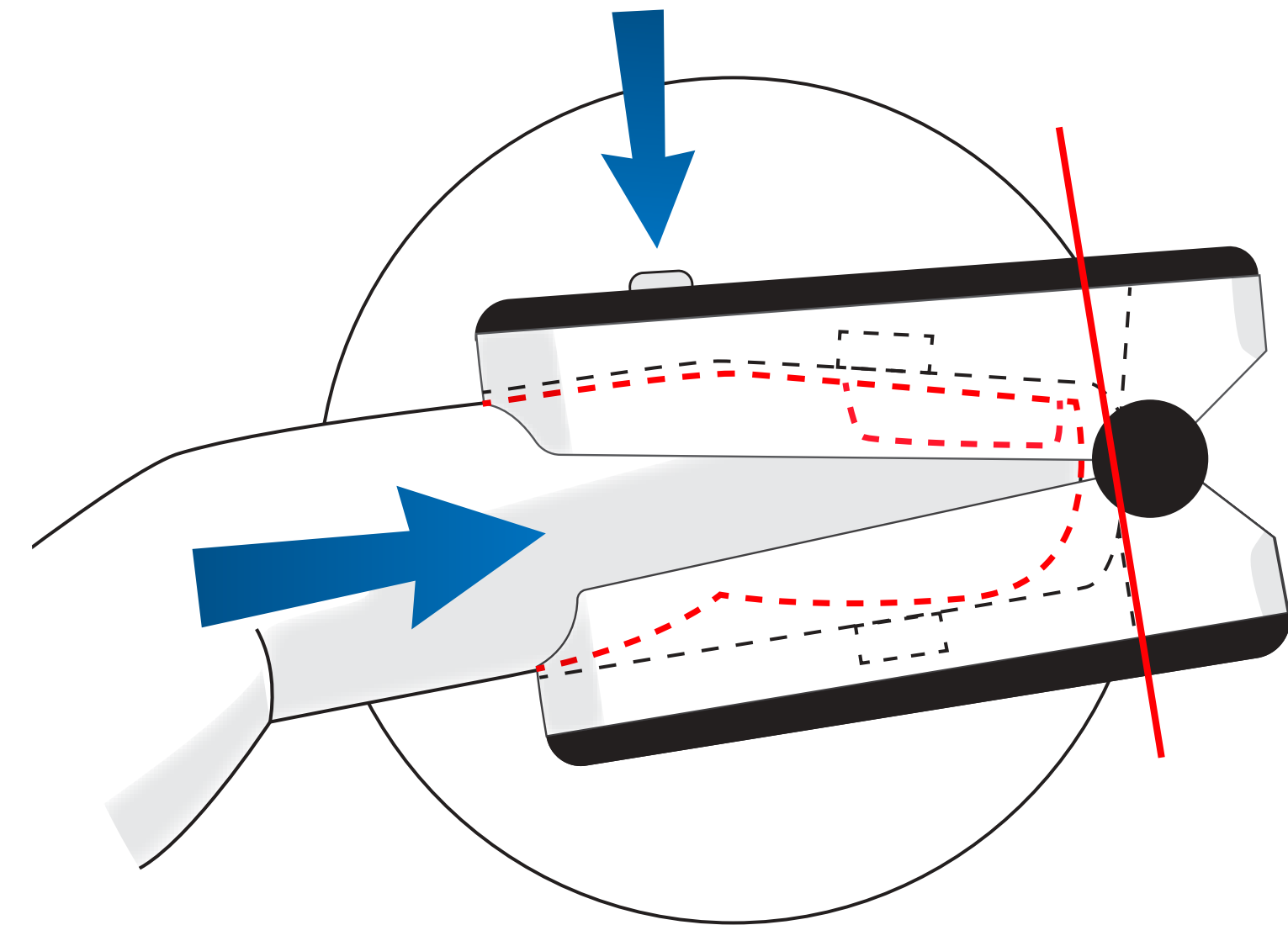
**OXI\_W  
Model  
D009**



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## 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 only provides mathematical analysis of the input of the PTG using the first and second derivatives of the PTG values related to the microvascular condition and endothelial function.
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 only provides mathematical analysis of the heart rate variability values related to the autonomic nervous system function.





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distributors or users

## 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 Cardiac Autonomic Neuropathy (CAN)

## ACCURACY:

- 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.
- clinical studies: [www.ldteck.com](http://www.ldteck.com)

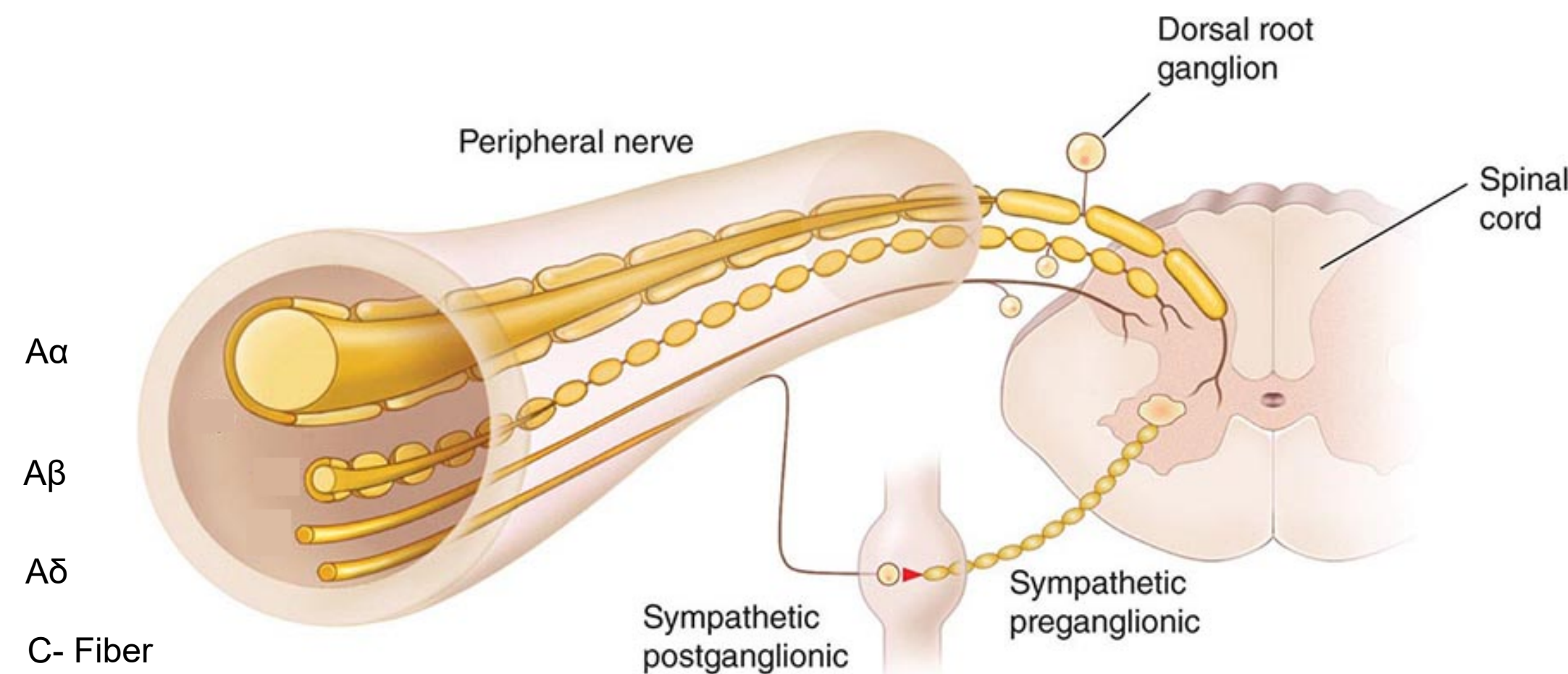
**Galvanic Skin Response  
SUDOMOTOR FUNCTION  
ASSESSMENT**



**SWEATC**



**The SweatC** is a patented technology assessing the sweat gland function . It uses the sympathetic skin response (SSR) method to assess the 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.



**Peripheral distal Neuropathy symptoms may be caused by any dysfunction or damage of:**

**Peripheral motor nerve and /or A $\alpha$  fiber ( large fiber) and / or A $\beta$  or A $\delta$  (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 motor nerve dysfunction
2. The vibration tests are using to detect the A $\alpha$  fiber dysfunction
3. The mono filament tests are using to detect the A $\beta$  and A $\delta$  fiber dysfunction.
4. The sudomotor tests are using to detect the 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.





## 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 (in particular 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 testing (QSART), silicone impressions 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 BENEFIT

- Increased reproducibility (no ageing of the electrodes)
- Prevent cross contamination
- Prevent biased measurement from the temperature
- Prevent biased measurement from the size of the feet

**Near Infrared Device**  
**Pain Relief of the small fiber**  
**neuropathy**



**NEURO**  
**PAIN CARE**



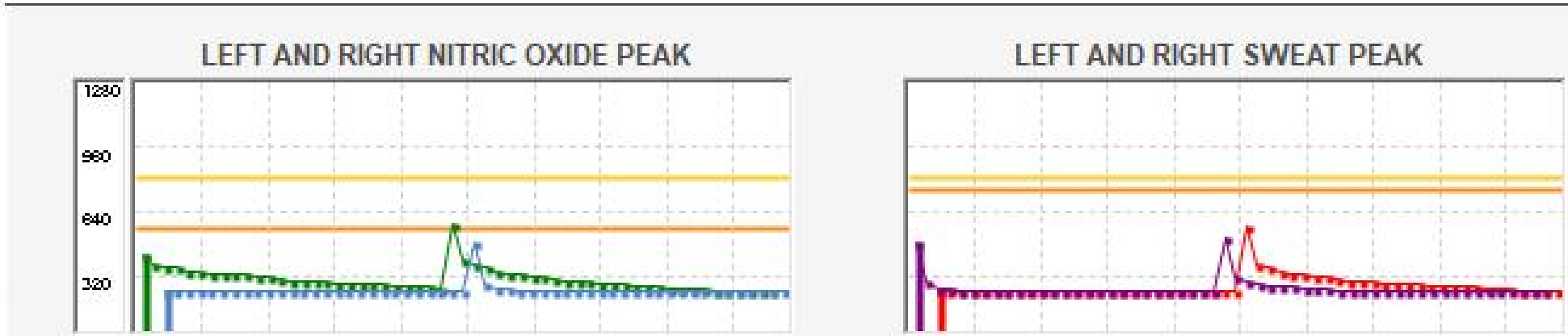
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### Effectiveness of the NID on the sudomotor recording

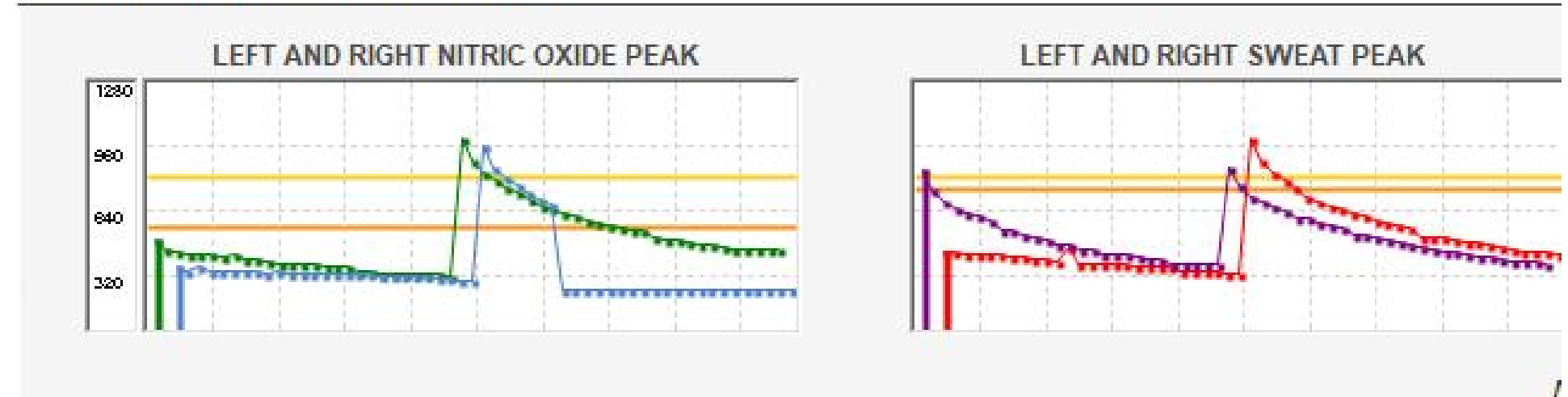
Before Treatment

#### ■ SUDOMOTOR TESTS GRAPHICS



After 30 minutes of Treatment

#### ■ SUDOMOTOR TESTS GRAPHICS



## INTENDED AND INDICATION FOR USE

The **Near Infrared Device (NID)** is intended for use for Pain relief by improving micro- circulation .

Our **Neuro Pain Care (NPC)** System combines the use of our diagnostic SweatC technology, to identify and monitor sudomotor dysfunction with Near infrared Device improve a patient's symptoms and conditions

## SPECIFICATIONS CONTRAINDICATIONS

- Wave length : 890 nm.
- Penetration : 5 cm
- Cancer
- Pregnancy
- Children

## NIT FEATURES

**NID device** was developed according to the discovery using wavelength near-infrared light source stimulates the tissue to release Nitric Oxide and therefore it provides blood dilation and micro circulation improvement.

**Pre-consultation  
Assessment**



**LIFEPROBES  
KIOSK**



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Lifeprobekiosk integrates 6 technologies to assess a patient pre-consultation

**BLOOD PRESSURE + OXIMETER + BIOIMPEDANCE+ HEIGHT SENSOR + WEIGHT SCALE +  
THERMOMETER. In addition it integrates a QR Code scan and automatic Hand sanitizer.**

## LIFEPROBES FEATURES

Lifeprobekiosk provides the following:

- Check in Patients:
- . Online Patient registration and QR code identification
- Online Medical Questionnaire
- Height and weight,
- Temperature,
- Blood pressure ,
- Oxygen saturation percent
- Heart rate,
- Estimate body composition
- Markers related to autonomic nervous system
- Marker of vascular aging.
- Customized diet under the MD

**The report is sent automatically to the assigned MD and can be  
uploaded to any EMR/ EHR.**

## LIFEPROBES BENEFITS

- Improved patient flow in medical offices, clinics, and hospitals.
- It save time for nurses and other employees to focus on other tasks
- Triage in ER according to the vital signs
- Monitoring and treatment follow ups of chronic disease.

ONLINE CHECK IN PATIENT LINK  
[www.life-probes.com](http://www.life-probes.com)





**Masks /  
UV-C Sterilizer**



**COVID-19  
Products**



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## SURGICAL MASKS

A protection mask is a loose-fitting disposable mask that protects the wearer's nose and mouth from contact with droplets, splashes and sprays that may contain germs. A protection mask also filters out large particles in the air. Protection masks may protect others by reducing exposure to the saliva and respiratory secretions of the mask wearer.

The KN95 masks have a filtering effect: 95% + Particle, Bacterial and Virus Filtration Efficiency





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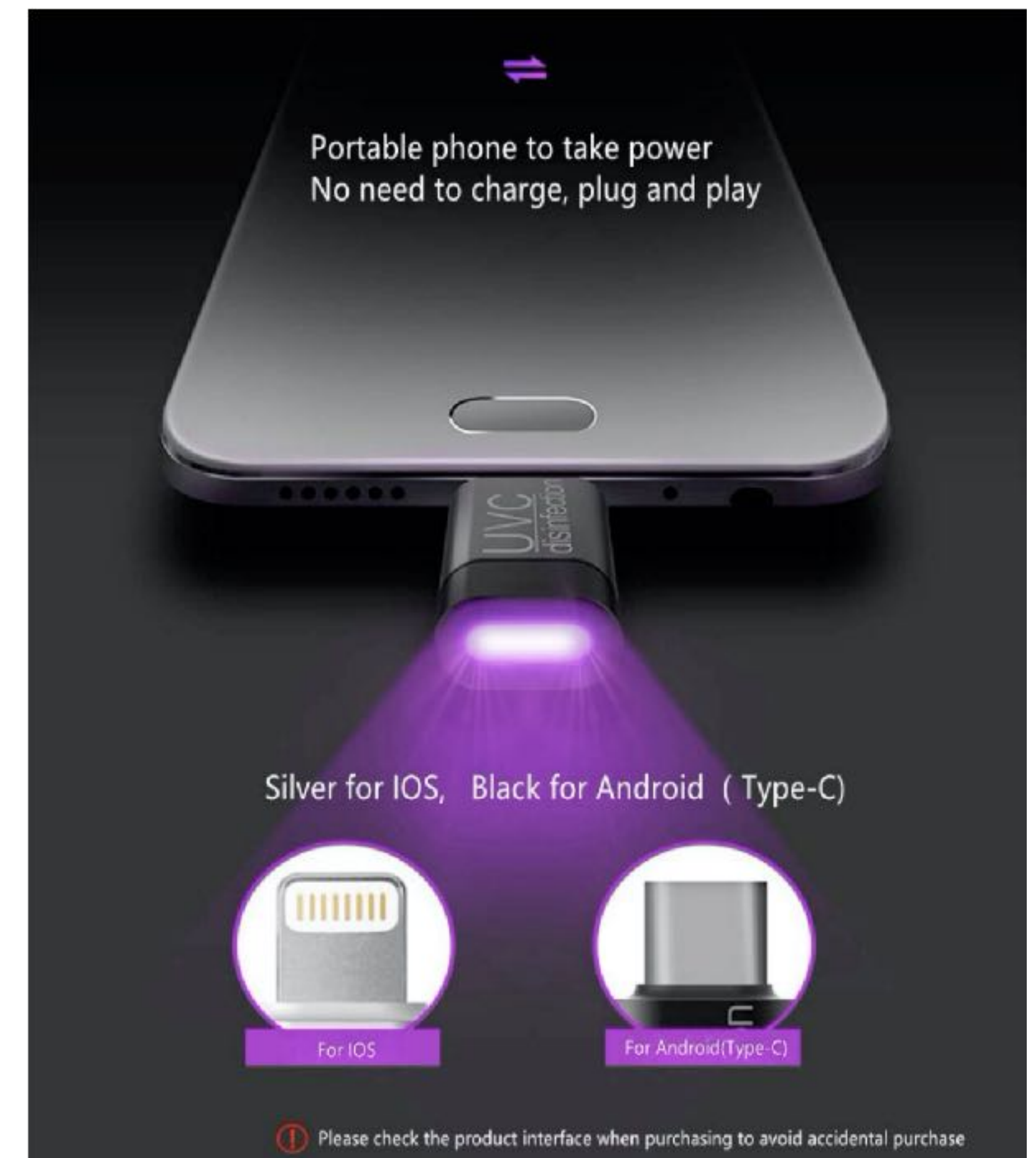
## MIS: Mini Instant Sterilizer

The MIS UV-C is a small flash key connected to your phone ( IOS or android) that turns on instantly, and it is the perfect way to control your environment and to be safe not only for home, office, car, but also for travel; Put the germicidal light into your pockets, and experience the bacteria defender anywhere you need. UV-C refers to ultraviolet light with wavelengths between 200 – 280 nanometers ( nm) that Is Safe for Humans but Bad for Bacteria and Viruses. ... The research team found that continuous low doses of UV-C light can kill airborne flu viruses without harming human tissues. It can be used for fast disinfecting ( only 5 to 10 s)

***houseware, tableware, makeup tools, toothbrush, baby toys or nipple , small package  
food products water surfaces, computer microorganisms in air minor wounds pc, pda, camera  
purses and wallets keys masks cash, credit cards***

### HOW DOES UVC DISINFECTION WORK?

As evident by multiple research studies and reports, when biological organisms are exposed to deep UV light it is absorbed by DNA, RNA, and proteins. Absorption by proteins can lead to rupture of cell walls and death of the organism replication process is disrupted, and the cell cannot replicate. **CELLS THAT CANNOT REPLICATE, CANNOT INFECT.**



# LD TECHNOLOGY ISO 13485-2016

FDA OWNER OPERATOR NUMBER:  
**10028854**

FDA ESTABLISHMENT REGISTRATION NUMBER:  
**3006146787**

SweatC A001 K152216

OXI\_W D009 K200141

TBL-ABI C001 K173696

BP-BT Kiosk F001 K200287

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