NerveCheck®

TECHNOLOGY APPLIED TO HEALTH

Phi Med

E U R O P E

Description of NerveCheck.

NerveCheck is a non-invasive diagnostic medical technology that quantifies the functional status of medium and small-caliber sensory nerve fibers, which cannot be assessed by EMG.

The results are expressed in quantitative numerical form in relation to the normal values table of the NerveCheck Master instrument.

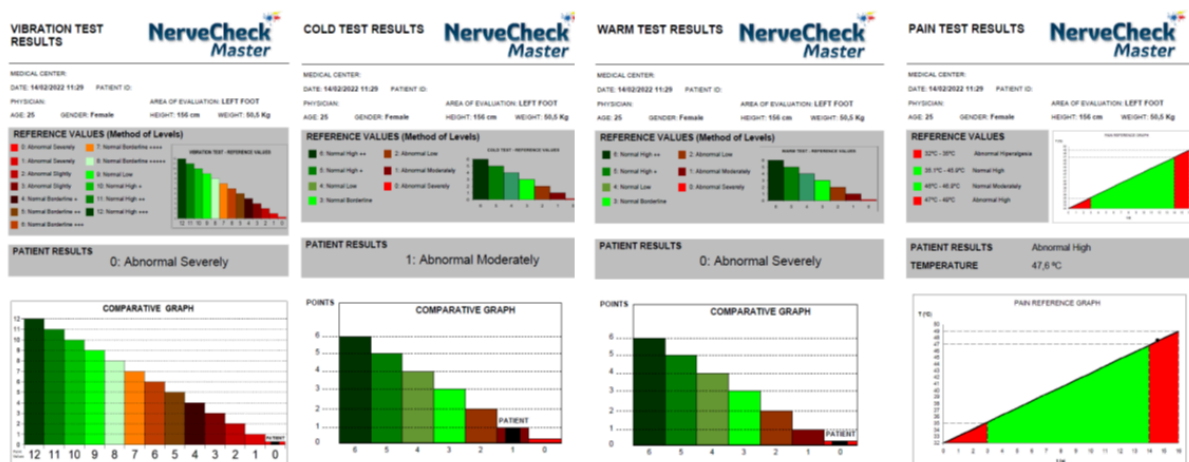## How is the evaluation done? Using 2 stimulators:

Mechanical stimulation, through a Vibrameter of 248Hz for testing Vibration Perception Threshold .

Thermal stimulation, through a Thermode for testing Cold and Warm Perception Threshold, and thermoalgesic stimulation tests.

Characteristics.

- ✓ Evaluation of 4 nerve fibers.
  Analysis in real time.

- ✓ Quantitative diagnosis.
  Prevention, early detection of alteration.
  Monitoring of the patient's evolution.

- ✓ **Pathologies: Diabetes, sensory neuropathy and polyneuropathy.**

- ✓ **Download Reports with results.**
  Immediate results.

- ✓ No calibration required. Carrying out 110 tests.

Bibliography:

• NerveCheck: An inexpensive quantitative sensory testing device for patients with diabetic neuropathy.
Diabetes research and clinical practice 113[2016]101-107

• NerveCheck for the Detection of Sensory Loss and Neuropathic Pain in Diabetes.
Diabetes Technology & Therapeutics Volume 18, Number 12, 2016   Mary Ann Liebert, Inc.
DOI: 10.1089/dia.2016.0279.

• Widespread sensory neuropathy in diabetic patients hospitalized with severe COVID-19 infection.
Diabetes Research & Clinical Practice Volume 172, 108631, February 01, 2021.

• Quantitative sensory testing defines the trajectory of sensory neuropathy after severe COVID-19.
Diabetes Research and Clinical Practice Volume 207, 111029, January 2024,

Technical Specifications

Class of the medical device	IIa
Stimulation Methods	Levels
	Limits
Compatible Operating Systems	Windows 7
	Windows 8
	Windows 8.1
	Windows 10
Screen	LCD Alphanumeric
Interface between NerveCheck Master and PC	USB
Software to Download data	Included
Batteries Unit A / Unit B	Lithium-polymer 392mAh / Lithium-polymer 5000mAh

Stimulator

Vibration Stimulator: Operating frequency (Hz)	248 Hz ± 1%		
Thermal Stimulator: Temperature Range (ºC)	Cold Test:	15 ºC - 25 ºC	± 0.5ºC
	Warm Test:	40 ºC - 46 ºC	± 0.5ºC
	Heat Pain Test:	32 ºC - 49.5 ºC ± 0.5ºC	
Time test performance (seconds)	Vibration Test:	2s ± 1%	
	Cold Test:	Max. 40s ± 1%	
	Warm Test:	Max. 40s ± 1%	
	Heat Pain Test/ Warm Test by Limit:	Max. 16 sec ± 1%	

Environmental conditions

Operating conditions: Temperature	18 ºC (64 ºF) - 30 ºC (86 ºF)
Operating conditions: Humidity	20 - 80 %
Storage conditions: Temperature	-20 ºC (-4 ºF) - 60 ºC (140 ºF)
Storage conditions: Humidity	20 - 80 %

Charger

Voltage	100 – 240V AC
Frequency	50 - 60 Hz
Power adapter output	18W

Dimension / Weight

Height / Width / Depth	113 x 66 x 267 mm
Weight (Battery included)	1.130 gr.

CE 1639

SGS

UKAS MANAGEMENT SYSTEMS 0005

ISO 13485:2016
EN ISO 13485:2016

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