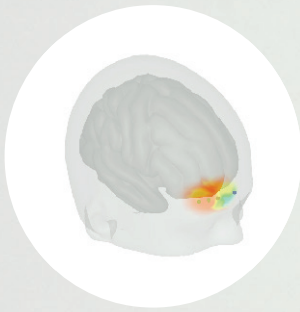


PortaLite

A portable cerebral oxygenation monitoring device



Main applications are found in:

- Brain oxygenation monitoring
- High altitude research
- Rehabilitation
- Sports science
- Functional studies
- Cerebral studies



Utilising the non-invasive NIRS technique.



Can be combined with other techniques such as EEG, EMG, and tDCS.



1 channel to measure absolute oxygenated hemoglobin percentage, 3 channels to measure relative concentrations.



Measures local tissue saturation (TSI), as well as oxy-, deoxy- and total hemoglobin.



Easy data analysis with our superior analysis software Oxysoft or OxyLite app (available for Android).



Real-time measurements using Bluetooth or offline measurements using the onboard data collection.

Interested?

Contact us at
askforinfo@artinis.com

www.artinis.com
+31 481 350 980

Einsteinweg 17
6662 PW Elst
The Netherlands

References to wireless NIRS

Buchheit et al. *Physiological responses to shuttle repeated-sprint running.* *Int J Sports Med.* 2010 Jun; 31(6):402-9.

Maidan I, Bernad-Elazari H, Gazit E, Giladi N, Hausdorff JM, Mirelman A. *Changes in oxygenated hemoglobin link freezing of gait to frontal activation in patients with Parkinson disease: an fNIRS study of transient motor-cognitive failures.* *J Neurol.* 2015 Jan 31.

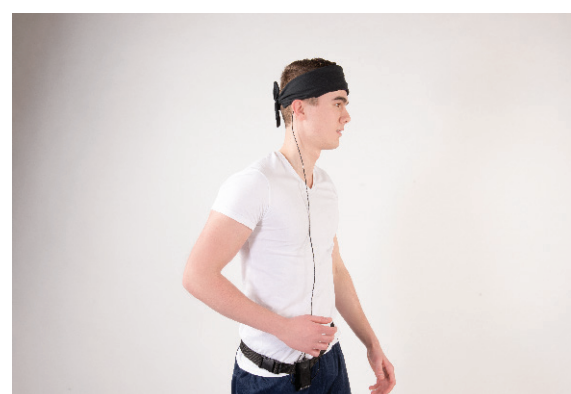
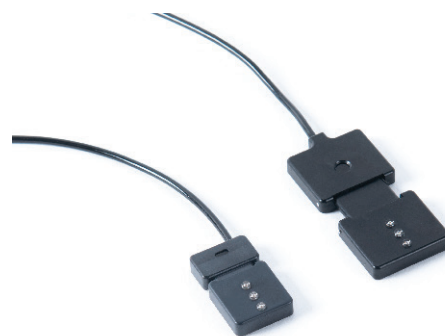
Maidan I, Nieuwhof F, Bernad-Elazari H, Reelick MF, Bloem BR, Giladi N, Deutsch JE, Hausdorff JM, Claassen JA, Mirelman A. *The Role of the Frontal Lobe in Complex Walking Among Patients With Parkinson's Disease and Healthy Older Adults: An fNIRS Study.* *Neurorehabil Neural Repair.* 2016 May 23. pii: 154596831665042

Maidan I, Bernad-Elazari H, Giladi N, Hausdorff JM, Mirelman A. *When is Higher Level Cognitive Control Needed for Locomotor Tasks Among Patients with Parkinson's Disease?* *Brain Topogr.* 2017 Apr 24.

Mirelman A, Maidan I, Hagar BE, Nieuwhof F, Reelick M, Giladi N, Hausdorff JM. *Increased frontal brain activation during walking while dual tasking: an fNIRS study in healthy young adults.* *Journal of NeuroEngineering and Rehabilitation* 2014, 11:85

Nieuwhof F, Reelick MF, Maidan I, Mirelman A, Hausdorff JM, Olde Rikkert MGM, Bloem BR, Muthalib M and Claassen JAHR. *Measuring prefrontal cortical activity during dual task walking in patients with Parkinson's disease: feasibility of using a new portable fNIRS device.* *Pilot and Feasibility Studies* 2016 2:59

Shadgan et al. *Wireless near-infrared spectroscopy of muscle oxygenation and hemodynamics during exercise and ischemia.* *Spectroscopy* 2009; 23: 233-241.



Technical specifications

TECHNOLOGY	Continuous wave near infrared spectroscopy using modified Lambert-Beer law
MEASURES	Measures local tissue saturation (TSI), oxy-, deoxy-, and total hemoglobin
DATA ANALYSIS SOFTWARE	Oxysoft
OPERATING SYSTEM	Windows 10
LIGHT SOURCE	Light emitting diodes: 3 x 2 wavelengths
WAVELENGTHS	Standard nominal 760 and 850 nm, others possible
CHANNELS	1 channel to measure absolute oxygenated hemoglobin percentage, 3 channels to measure relative concentrations
DETECTORS	Photo diode with proprietary ambient light protection
OPTODE DISTANCE	30, 35, 40mm
POWER	Up to 8 hours with one interchangeable and rechargeable battery. Upgradable up to 16 hours
TOTAL WEIGHT	88 grams including battery
SIZE	Battery housing: 84 x 54 x 20mm, wire: 1.3m, probe: 58 x 28 x 6mm
ENVIRONMENT	Operating temperature: ~ 10-35 °C
INTERFERENCE	No interference with EEG, ECG or EMG
OPTIONAL	All devices can be combined with the PortaSync.
EVENTS	Insert online and offline events
INDICATIONS	Battery status, Bluetooth connection
SAMPLE RATE	Up to 50 Hz
NIRS + OTHER MODALITIES	We deliver the following packages: PortaLite + TMSI EMG package (2 channels or more) PortaLite + TMSI EEG package (16 channels or more) PortaLite + Tobii eyetracker

Get a quote:

askforinfo@artinis.com

What's in the box?

PortaLite research package

PortaLite
Strong & sturdy Pelicase
License key

2 Batteries & charger
Laptop
User guide

Bluetooth dongle
Oxysoft, data analysis software
Stickers & dark cloth/bandana