

Cutting-Edge Physiological Monitoring System Unveiled for Researchers and Clinical Trials to Advance Research Outcomes

Cutting-Edge Non-Invasive Physiological Monitoring System Unveiled for Researcher and Clinical Trials: Advancing Medical Research and Improving Patient Outcomes

WOBURN, MA, UNITED STATES, June 15, 2023 /EINPresswire.com/ -- Cutting-

Edge Non-Invasive [Physiological](#)

[Monitoring](#) System Unveiled for Researchers and Clinical Trials: Advancing Medical Research and Improving Patient Outcomes.



VuTronics(tm) Physiological Monitoring System

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By offering researchers and clinical trial investigators a comprehensive and non-invasive solution for monitoring physiological parameters, our system opens new avenues.”

ApsTron's CEO

ApsTron Science, Corp, a trailblazer in healthcare technology and innovation introduces its ground-breaking non-invasive physiological monitoring system tailored for researchers and clinical trial applications.

This advanced system is designed to measure a wide array of physiological parameters.

These physiological measures include Peripheral Blood Flow (PBF), Surface Electromyography (sEMG), Respiration (Resp.), Heart Rate (HR), Inter-beat Interval (IBI),

Electrodermal Response (EDR), Electroencephalography (EEG), and Electrocardiography (EKG).

Systems are manufactured by Apstron that have up to 16 Channels of data in mix modality per user requirements.

ApsTron software runs on PC's and Tablets to display data in real-time, which can be saved for post session analysis, or to provide real-time, Time or Frequency Domain analysis.

The software comes with a number of protocols to collect physiological data, the protocols can

be changed by the user or by ApsTron to accommodate specific use cases. The protocols come with built-in voice prompts to collect data.

By providing comprehensive and accurate data, this cutting-edge technology, that includes Sensors and Software, that captures physiological data through wire or wireless connection, is set to revolutionize medical research and enhance the efficacy of clinical trials and research applications.

The non-invasive physiological monitoring system developed by ApsTron represents a significant leap forward in research and clinical trial methodologies. By harnessing state-of-the-art sensor technology and sophisticated algorithms, this innovative system enables researchers to gather rich physiological data without invasive procedures or uncomfortable monitoring devices. Its extensive capabilities offer a multitude of benefits and applications for various research fields and clinical investigations.

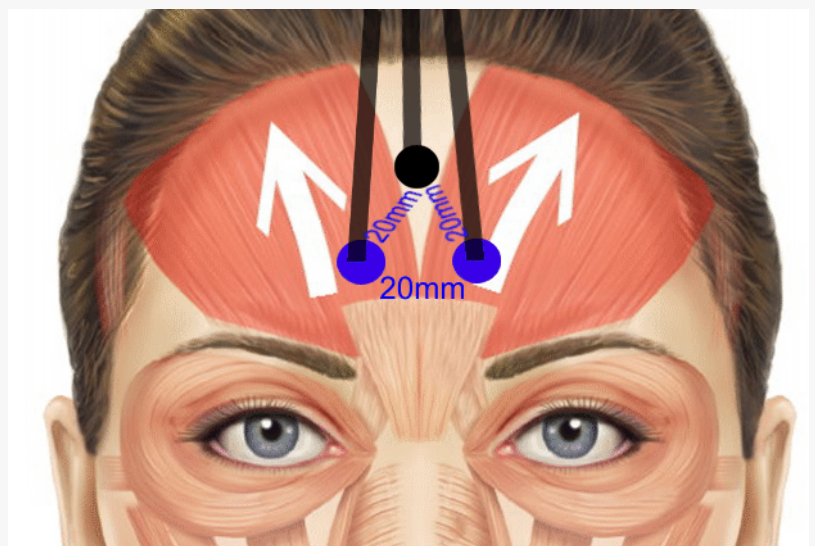
Key Features and Benefits of the Non-Invasive Physiological Monitoring System:

Peripheral Blood Flow (PBF): Researchers and clinical trial investigators can utilize the system's peripheral blood flow measurement capability to gain valuable insights into cardiovascular health, circulatory abnormalities, and microvascular changes. This information is invaluable for evaluating the effectiveness of new therapeutic interventions and assessing patient responses in clinical trials.

Surface EMG (sEMG): The system's surface electromyography (EMG) feature empowers researchers to comprehensively evaluate muscle activity and neuromuscular function in a non-invasive manner down to 0.01 μ V. It facilitates the precise measurement of muscle



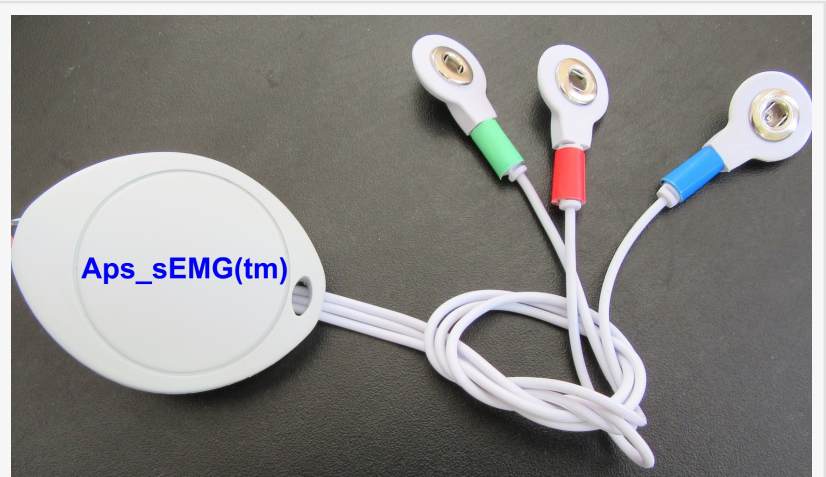
Peripheral Blood Flow Sensor



Example of a Electromyography Sensor Placement

activation patterns, contributing to the assessment of treatment efficacy and therapeutic interventions in clinical trials focused on neuromuscular disorders and rehabilitation.

Respiration (Resp): Real-time monitoring of respiration patterns and pulmonary function is essential for researchers conducting studies related to respiratory disorders, pulmonary drug development, and sleep medicine. The system's respiration measurement capability offers accurate and reliable data for analyzing respiratory parameters and evaluating the impact of interventions on breathing patterns.



Tiny sEMG Sensor Measures down to 0.01uV

Heart Rate and Inter-beat Interval (HR & IBI): Accurate heart rate monitoring and inter-beat interval analysis provide critical insights into cardiovascular health, autonomic regulation, and physiological responses to interventions. This functionality is invaluable for researchers investigating cardiac conditions, drug effects on heart rate variability, and the impact of therapeutic interventions on cardiovascular outcomes.

Electrodermal Response (EDR): The system's electrodermal response measurement capability allows researchers to assess sympathetic nervous system activity and emotional responses in a non-invasive manner. This feature is particularly useful for studies focused on stress, anxiety disorders, emotional regulation, and the evaluation of treatment effectiveness in clinical trials.

Electroencephalography (EEG): The inclusion of EEG monitoring expands the system's capabilities for researchers conducting studies on brain function, cognitive processes, sleep disorders, and neurological conditions. EEG data enables detailed analysis of brainwave patterns, facilitating the assessment of treatment effects and cognitive outcomes in clinical trials.

Electrocardiography (EKG): The system's EKG capabilities enable researchers to precisely measure and analyze the heart's electrical activity, making it a valuable tool for cardiac research and clinical trials. EKG data aids in evaluating cardiac health, detecting arrhythmias, assessing drug effects on cardiac rhythm, and monitoring patient responses to therapeutic interventions.

Temperature (Temp): The system measures minute changes in temperature. This helps with monitoring inflammatory responses, assessing harmonic changes, tracking circadian rhythm, evaluation autonomic nervous system, detecting allergic reactions, and provide personalized health and wellness.

ApsTron's non-invasive physiological monitoring system has undergone extensive testing and validation, ensuring exceptional accuracy, reliability, and data quality. The system's user-friendly design, seamless integration with research protocols, compatibility with data analysis software, and data export option make it an indispensable tool for researchers and clinical trial investigators.

By providing comprehensive and precise physiological data, this system paves the way for groundbreaking discoveries, evidence-based interventions, and improved patient outcomes in the field of medical research.

"By offering researchers and clinical trial investigators a comprehensive and non-invasive solution for monitoring physiological parameters, our system opens new avenues for scientific exploration and evidence-based medicine," ApsTron's CEO. "We envision our technology playing a pivotal role in advancing medical research, improving treatment outcomes, and ultimately enhancing research outcomes."

The non-invasive physiological monitoring system is available to be demonstrated and is available for research institutions and clinical trial applications.

ApsTron Science aims to transform research and healthcare by designing and producing, Physiological Sensors, Software, and Mobile Apps for objective actionable data to help Monitor, Document and Evaluate health conditions that empower Consumers, Healthcare Providers, and Clinical Trials to better manage health.

More information on their free health-related mobile apps can be found at www.Healthdiaries.US. Their sensors, software, and apps are used by consumers, healthcare providers, researchers, and for clinical trials.

The information and datasheets on their sensors are available at their site www.AllMedicalSensors.com.

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