

# c-FLOW™

Non-Invasive, Continuous, Real-Time & Bedside Monitor



Non-Invasive



Continuous



Real-Time



Bedside



Direct  
Measurement



Actionable,  
therapy guidance



Validated -  
Proven in various  
clinical settings

## what is c-FLOW™?

c-FLOW™ is a continuous, non-invasive monitor of deep tissue blood flow used to measure relative changes in blood flow. c-FLOW™ monitors regional microcirculatory blood flow in tissues, by using sensors placed near the area of interest. Information reflecting real-time changes in the blood flow, suggesting changes in tissue perfusion, is displayed numerically and graphically on the bedside monitor's screen. This information, in addition to timely alerts provided to attending clinical staff, might minimize potential complications and enhance treatment outcomes. The operation of the c-FLOW™ Blood Flow Monitor is based on Ornim's patented technology, UTLight™. The revolutionizing UTLight™ technology, utilizes weak acoustic beams to identify light emerging from deep tissue layers. Neurocritical Care physicians, intensivists, surgeons, anesthesiologists and other medical professionals may use the information provided by the c-FLOW™ Blood Flow Monitor, in conjunction with other available monitoring systems, to determine tissue microcirculatory blood flow levels to improve patient care.

## intended use

The non-invasive c-FLOW™ Blood Flow Monitor is intended to monitor microcirculatory blood flow in the body. It is indicated for monitoring cerebral and skeletal muscles of adults.

## c-FLOW™ clinical utility

The c-FLOW™ monitor will alert physicians to changes in cerebral blood flow that may have a dismal effect on patients outcome. It will also indicate the state of autoregulation when compared to changes in MAP. The use of the c-FLOW™ monitor will assist in the dynamic management of blood pressure, CO<sub>2</sub>, ICP and other factors influencing Cerebral Blood Flow (CBF) and cerebral tissue perfusion. This dynamic management is important in tailoring treatment in the ICU for TBI, SAH, ICH and stroke patients and in the OR for a wide range of patients including CVS, aortic, valves repairs, CEA and various high risk procedures.

## clinical applications

Validation studies demonstrated the performance of c-FLOW™ and its ability to continuously assess changes in local tissue flow, the most important physiological parameter responsible for adequate tissue perfusion. c-FLOW™ is a bedside monitoring system, with interface to the patient consisting of maintenance-free dry pads. Operation of the system does not require additional personnel. Information presented on the monitor's screen provides nurses and physicians with timely indications of changes in blood flow, as well as the blood flow trendline, enabling timely and effective decisions by the clinical staff.

# Specifications

Clinical applications that may be supported by c-FLOW™ include cerebral pathologies:

- TBI
- SAH
- Stroke

## Sensors

UTLight™ technology, utilizing low intensity ultrasound beams to identify light emerging from deep tissue layers\*. Sensors are attached to patient's skin using pads that can be repositioned to best target the monitored tissue. The system supports a single or two simultaneous monitoring channels.

## Clinical Settings

- Neurocritical Care Unit (NICU)
- Surgical Critical Care Unit (SICU)
- Operating room (OR)

## User Interface

The c-FLOW™ monitor was designed to simplify operation by busy ICU nurses and to best fit with the general workflow. The bedside monitor offers:

- Color LCD touch screen
- Drop-down menus for simplified navigation
- On-screen event marker
- Capability to review and mark data history
- Alert threshold settings
- Calibrated with no need for additional on-site calibrations

Specifications	
Maintenance and Cleaning	The system contains no user-serviceable parts. Do not attempt to open the system covers
History Data	Up to 10 days per patient
Refresh Data	On-screen refreshed data - every 5 seconds
Power	External AC mains or backup battery
Input Voltage	100 - 240 VAC
Frequency	50 / 60 Hz
Current	0.3 A - 0.7 A
Fuse	2x2A
Backup Battery	14.4 V, approximately 60 minutes
Digital Output	USB2.0 - front
Mains Cable Length	1.5m
Sensor Cable Length	3m
Ultrasound	1MHz
Laser (Class IIIB)	808 nm
Range of Readings	0 - 100 units

The c-FLOW™ is FDA cleared for sale in the USA

\* The non-invasive c-FLOW™ monitor is intended for use as an adjunct monitor of microcirculation blood flow in tissue. c-FLOW™ monitor is intended for monitoring of adults. The prospective clinical value of data from the c-FLOW™ monitor has not been demonstrated in disease states. It should not be used as the sole basis for diagnosis or therapy.

**The c-FLOW™ is FDA cleared for sale in the USA and CE cleared for sale in the European Union.**

