We Chose Nonin Medical’s SenSmart™ Technology (rSO₂/SpO₂)

“We needed a new cerebral/somatic tissue oximetry system that could provide us consistent clinical information, ease-of-use and an extra source of SpO₂.”
SenSmart™ rSO₂ Technology: 16 Light Paths
Greater Accuracy and Reliability through Better Science

Nonin’s SenSmart™ Model X-100 Universal Oximetry System is the only state-of-the-art technology featuring 16 light paths of tissue interrogation (four short and four long wavelengths in each of two light emitters). Its dual emitter technology enables an advanced, patent-protected algorithm, allowing more distinct signals going out and more detailed data coming in. Other systems only offer between 4 and 10 light paths.
With published accuracy\textsuperscript{1,2} far exceeding the common, 20+ year-old two-wavelength system on the market, Nonin’s SenSmart System also offers the following unique benefits:

**Absolute rSO\textsubscript{2} Accuracy vs Trending rSO\textsubscript{2} Accuracy**

More and more tissue oximetry monitoring is occurring in situations with very sick patients where establishing a meaningful baseline can be impossible. The SenSmart System gives you an accurate rSO\textsubscript{2} reading without dependence on a baseline.

**SpO\textsubscript{2} Capability**

Nonin Medical has incorporated its well-known PureSAT\textsuperscript{®} SpO\textsubscript{2} low-perfusion/motion-tolerant technology into its rSO\textsubscript{2} system. This unique capability allows for monitoring and data download of SpO\textsubscript{2} in synchrony with rSO\textsubscript{2}, which is useful clinically and for research.

**6-Channels, All Color-Coded**

Nonin’s SenSmart System is the only rSO\textsubscript{2} system with up to 6 channels. In addition, the system can use any combination of multiple SpO\textsubscript{2} and rSO\textsubscript{2} channels.

**60mm of Tissue Coverage (Adult/Pediatric Sensors)**

Dual emitters provide 60mm of tissue monitoring width across the skin. Other sensors of the same size offer just 40mm or 50mm of tissue monitoring width.

**Over-the-Top Sensor Cable Exit Angle**

The only rSO\textsubscript{2} cerebral monitoring design with the cables exiting the sensor over the head toward the anesthesia station, avoiding neck lines and other tangles to the sides.

**Portability**

Nonin’s SenSmart System is the only system designed to be portable or mounted in place. It weighs just 900 grams and has a 3-hour battery life, compared to other systems weighing over 6 kilos with much less battery life.

**Unprecedented Ease of Use**

Turn on and start monitoring in less than 30 seconds, unlike other systems requiring up to 2 minutes or more of start-up and menu selection time.

**Neonate/Infant-Specific Sensor Design**

Neonate/infant-specific optical spacing targets tissue at neonate/infant depths. A specific algorithm for the neonate/infant sensors using Nonin’s proprietary Dynamic Compensation™ accounts for widely varying levels of cerebral myelin (an absorbing chromophore) in the first months of life. Adhesive and non-adhesive sensors and no lower weight limit on patient size provide flexibility for use on your smallest patients.
Nonin Medical: Leaders in Noninvasive Medical Monitoring

Nonin Medical is a technology-driven company and a leader in developing high performing, low cost, easy-to-use noninvasive medical monitoring solutions. Nonin took NIRS-based oximetry to a new level of clinical utility when it invented the fingertip pulse oximeter, so the move to provide clinicians with an accurate, versatile, portable regional oximeter was a natural one. Today, Nonin’s new SenSmart™ Universal Oximetry (rSO₂/SpO₂) System takes clinical utility and convenience to the nᵗʰ degree, utilizing the same innovative sensing and signal processing technologies that already give millions of clinicians the confidence that the numbers they see reflect their patients’ true physiology.

Nonin Medical NIRS-based oximetry advancements include:

1990 — Introduced world’s first portable hand-held pulse oximeter
1995 — Introduced world’s first fingertip pulse oximeter — the Onyx® 9500
2004 — Introduced world’s first pulse oximeter with Bluetooth® wireless technology
2009 — Introduced EQUANOX™ regional oximetry system
2011 — Introduced industry-leading accuracy in the EQUANOX Advance™ adult absolute regional oximetry sensor for cerebral and somatic applications (8004CA)
2011 — Released world’s first regional oximetry OEM Solution
2012 — Introduced Nonin’s Dynamic Compensation™ algorithm which automatically accounts for pediatric brain tissue development variation when measuring oxygen saturation levels
2013 — Introduced world’s first rSO₂/SpO₂ universal oximetry system

Are you considering a new rSO₂ System?
If so, evaluate Nonin Medical’s SenSmart System at no cost or obligation.

For more information or to contact us, visit sensmart.com.

References: