Medtronic

Empowering patient safety. Anytime, anywhere.

Ambulatory surgery centers

Through connected solutions seamlessly integrated into your clinical practice, our portfolio of services and resources can help you predict and prevent dangerous and costly complications in your ambulatory surgery center.

Blood oxygen management

Track moment-to-moment oxygen status to drive critical decisions

Respiratory management

Provide airway management and reduce drug-induced respiratory compromise[1]

Perioperative care

Preserve vital organ health during surgery

Blood oxygen management

Nellcor™ pulse oximetry sensors with OxiMax™ technology

From neonate to the elderly, and virtually every patient in between, count on Nellcor™ pulse oximetry to provide quick and reliable information.[2,3] This SpO_2 monitoring solution helps you track every heartbeat to ensure readings are sensitive and timely, even in the most challenging conditions.[†,2,4]

- Nellcor™ pulse oximetry has consistently delivered respiratory monitoring solutions that clinicians can count on.
- We continually build upon our technology with meaningful innovations that make a difference in accuracy,[3] clinician workflow,[5,6] and your ability to assess the next steps in patient care.

A recent prospective study enrolling healthy volunteers evaluating the effects of skin pigmentation and perfusion index on pulse oximeter accuracy shows telling results[†,‡]:

- Not all pulse oximeters are equal – there is bias in pulse oximetry readings for patients with dark skin.[7]
- Nellcor™ pulse oximetry missed 74% fewer hypoxemic events for subjects with dark skin and low perfusion than Masimo SET™* pulse oximetry.[‡,8]
- Nellcor™ pulse oximetry had 31% greater precision in all dark skin readings than Masimo SET™* pulse oximetry.[‡,8]

Missed 74% fewer hypoxemic events for patients with dark skin and low perfusion[8]

Collaborative care

Our industry partnerships help empower clinicians with vital patient monitoring technology:

- **Strategic partnerships.** Bring market-leading technology to more than 70 OEM partners, giving clinicians the ability to choose their preferred respiratory function and advanced parameter monitoring technology
- **Flexible OEM solutions.** Integrate into a broad range of multi-parameter monitoring and medical device host systems from a single source
- **Plug-and-play devices.** Without requiring hardware or software updates
- **Seamless integration.** With dedicated OEM monitoring support team

OEM partners

Baxter • BD • Dräger • Fukuda Denshi • GE HealthCare • Mindray • Nihon Kohden • Philips • Stryker • ZOLL

† Oxygen saturation accuracy can be affected by certain environmental, equipment, and patient physiologic conditions that influence readings of SpO_2. Please consult the instructions for use and manual for full safety information.

‡ The study (not funded by Medtronic) enrolled 146 healthy subjects in the 92-96% saturation range and examined paired readings from Nellcor™ N-595 and Masimo Radical 7™* pulse oximeters generated simultaneously. This study was not designed for head-to-head comparison of the respective devices.

Respiratory management

Microstream™ capnography monitoring

Microstream™ capnography monitoring provides an early warning of respiratory compromise,[9] offering clinicians the opportunity to provide care sooner and quickly determine how to intervene – reducing risks and saving time, money, and lives.[10-13]

Microstream™-enabled capnography monitoring includes Smart Capnography™ integrated algorithms proven to reduce alarms and simplify the use of patient monitoring to enhance patient safety and improve clinical efficiency.[14,15]

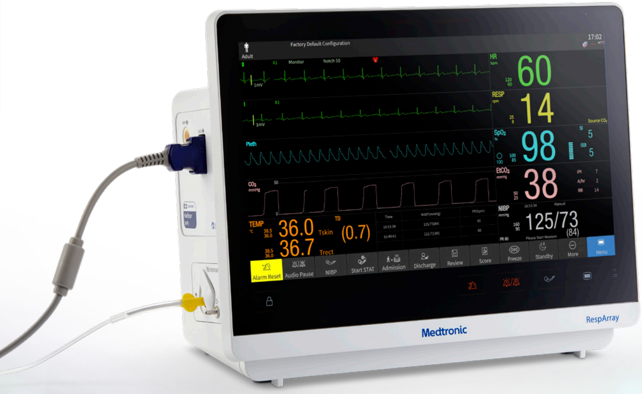
- Available for long-term and short-term use and with or without oxygen delivery
- Sized to accommodate neonate to adult patients

Provides an early warning of respiratory compromise[9]

RespArray™ patient monitor

Experience world-class Nellcor™ pulse oximetry and Microstream™ capnography in our continuous multiparameter vital signs monitor.

- Continuously monitors SpO_2 (Nellcor™ pulse oximetry), $EtCO_2$ (Microstream™ capnography), ECG, temperature, and NIPB
- Designed to continuously monitor patients in areas of care where additional parameters are needed in addition to spot checking
- Features a large, intuitive touchscreen you can see from multiple angles and from a distance; it also includes an HL7 interface, is WiFi-enabled, and connects to your EMR and Vital Sync™ remote patient monitoring
- Detect respiratory compromise early[16,17] and help reduce nuisance alarms with Nellcor™ pulse oximetry and Microstream™ capnography technologies[18]



Routine intubations

McGRATH™ MAC video laryngoscope

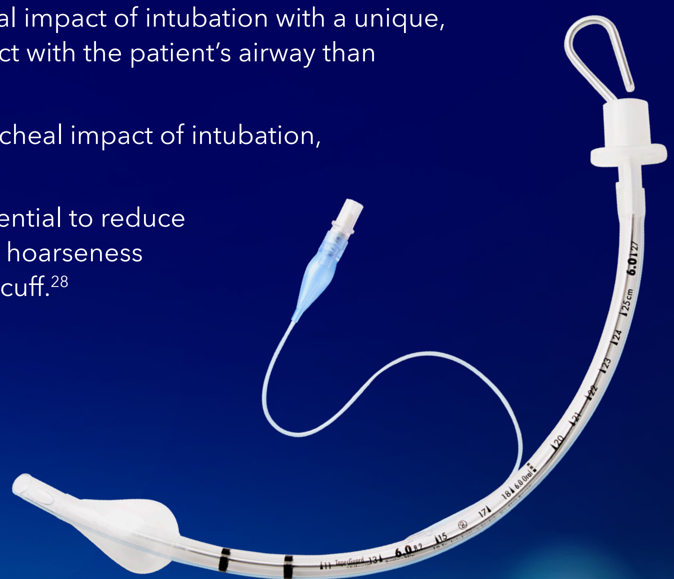
- **Performance.** Make this your default technique so your first intubation attempt is your best.[19]
- **Portability.** Handheld, cable-free, and durable, it features a reliable, simple power source for every intubation – regardless of location.
- **Affordability.** It is associated with improved patient outcomes compared to direct laryngoscopy[20,21] and offers significant direct cost savings compared to other VLs.[22]
- **Ergonomics.** Its familiar, balanced design for intuitive ease of use may support a more ergonomic, upright, and relaxed intubation.[23]
- **Clinician Safety.** Video laryngoscopes support clinicians remaining in an upright position, which creates a distance between the clinician and the patient and may reduce clinician exposure to droplet-borne pathogens.[24,25]

Airway protection

Shiley™ endotracheal tubes with TaperGuard™ cuff

Patient comfort is the foundation of the TaperGuard™ cuff design. Endotracheal tubes with TaperGuard™ cuff technology have features that may help reduce the tracheal impact of intubation with a unique, taper-shaped cuff design that provides a smaller area of contact with the patient's airway than traditional barrel-shaped cuffs.[26]

- By requiring less insertion force, it also helps reduce the tracheal impact of intubation, which may minimize patient trauma.[27]
- Using an endotracheal tube with a tapered cuff has the potential to reduce the incidence and severity of postoperative sore throat and hoarseness when compared with an endotracheal tube with cylindrical cuff.[28]



Brain monitoring

BIS™ brain monitoring system

BIS™ brain monitoring system provides direct measurement of the anesthetic effect on each patient's brain, helping clinicians personalize anesthetic dosing to:

- Use up to 38% less anesthetic agents to help control greenhouse gas emissions[29-32]
- Improve emergence and recovery times with 32% faster PACU discharge[33]
- Reduce postoperative delirium by up to 29% for better patient outcomes[§,34]
- Initiate a faster extubating time[31,35-37]

Cerebral oxygenation saturation

INVOS™ regional oximetry system

Maintaining adequate cerebral perfusion during surgery is imperative to preventing cerebral ischemia and other risks associated with cerebral desaturation. Several studies have cited that the occurrence of cerebral desaturation suggests the need for perioperative cerebral perfusion monitoring.[38-41]

For example, patients in the beach chair position during shoulder surgery, ventilation strategy positively influences cerebral perfusion regardless of anesthetic technique.[39]

The INVOS™ system provides a continuous non-invasive measurement of cerebral oxygen saturation and a reliable indication of changes in cerebral perfusion.[42]

- Unique clinical algorithm can alert potential hemodynamic changes before other vital sign monitors even react[43-49]
- More peer-reviewed clinical research than any other product available that consistently demonstrates ability to intervene sooner[43-49]

Positively influence cerebral perfusion[38-41]

§ ENGAGES Canada trials were not used in this calculation.

Monitoring products should not be used as the sole basis for diagnosis or therapy and are intended only as an adjunct in patient assessment.

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02/2025 – US-PM-2400582 – [WF#14510061]

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