

Get clear results, with smart technology.

Discover the Microstream™ technology advantage



Capnography monitoring designed for efficiency

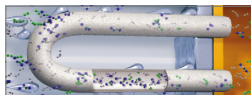
Microstream™ technology is engineered for short-term† and long-term‡ monitoring of intubated and nonintubated patients. Sizes are available for virtually all patient populations, from neonate to adult. Use Microstream™ technology to monitor patients across the healthcare continuum, including pre-hospital EMS, emergency room, Med-Surg unit, critical care, PACU and during procedural sedation.

The Microstream™ technology advantage

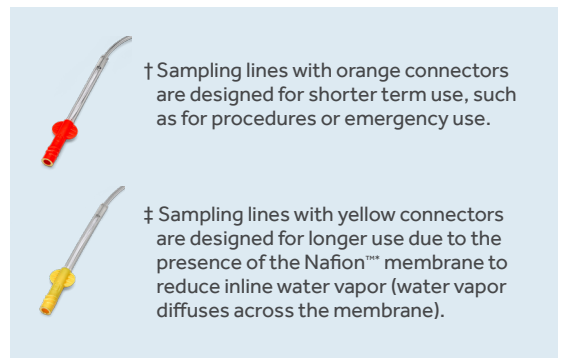
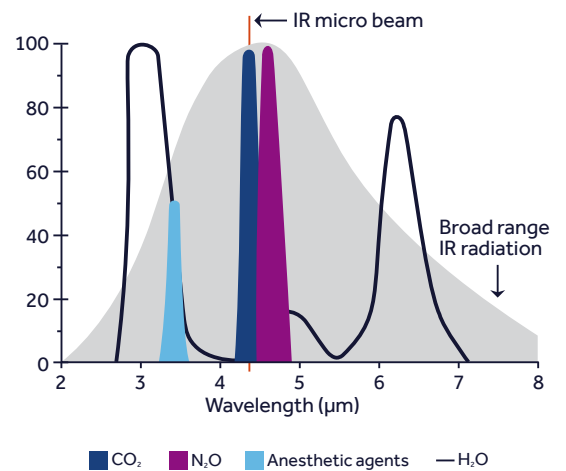
Engineered with proprietary Molecular Correlation Spectroscopy™ technology, a CO₂-specific IR wavelength, Microstream™ capnography monitors are designed to offer clear, crisp waveforms and accurate measurements, with no impact from the presence of other gases (i.e., O₂, N₂O, He, or inhaled anesthetics).

Microstream™ capnography technology offers:

- Plug-and-play technology — turn on monitor, attach Microstream™ Advance filter line, and begin monitoring
- No individual patient calibration or zero required
- Automatic adjustment for changes in ambient temperature; not impacted by temperature fluctuations
- Low flow 50-mL/min (±5 ml/min) sample rate, engineered for effectiveness with virtually all patient types and necessary for neonatal sampling
- 0.2-micron sterilizing-grade filter designed to reduce risk of biohazard contamination of the monitor



Molecular Correlation Spectroscopy™ technology



Medtronic

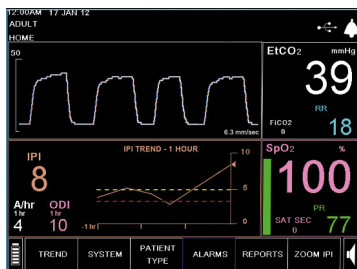
Smart Capnography™ family of algorithms

The Smart Capnography™ family of algorithms are engineered to reduce alarms and simplify the use of capnography monitoring. The suite of algorithms include:

- **Smart Breath Detection™ algorithm (SBD)**
Proprietary filter and pattern recognition algorithm is designed to screen out low-amplitude “non-breath” etCO₂ excursions like snoring, talking, or crying, to offer a more reliable respiratory rate.
- **Smart Alarm for Respiratory Analysis™ algorithm (SARA)**
Functioning in combination with SBD, SARA is designed to respond accurately to clinically significant events. It is engineered to reduce the number of nuisance respiratory alarms while providing a comprehensive picture of respiratory status.
- **Nellcor™ SatSeconds alarm management**
A clinician-controlled feature that has been shown to reduce nuisance alarms.^{1,2}
- **Integrated Pulmonary Index™ algorithm (IPI)**
IPI combines four real-time measures — etCO₂, SpO₂, respiratory rate, and pulse rate — to provide an inclusive assessment of respiratory status in a single number from 1-10 and promote early awareness of changes to respiratory status.

IPI	PATIENT STATUS
10	Normal
8-9	Within normal range
7	Close to normal range; requires attention
5-6	Requires attention and may require intervention
3-4	Requires intervention
1-2	Requires immediate intervention

- **Apnea-Sat Alert™ algorithm**
Provides key insights through summary reports of recurring apnea events per hour as well as oxygen desaturations.

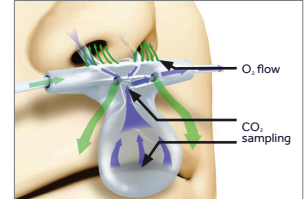


Apnea-Sat Alert™ algorithm home screen



Sampling line technology

- Uni-junction™ technology is designed for effective sampling from both nares and the mouth, even at low tidal volumes.
- Delivers oxygen to both nares and orally by producing an “oxygen cloud” in front of the nose and mouth through small holes at the base of the nasal prongs and oral scoop.
- Wide array of options:
 - Neonate, pediatric, and adult sizes
 - Intubated and nonintubated
 - Short-term and long-term
 - High humidity environment
 - Nasal and oral/nasal
 - Available with and without tubing for supplemental oxygen delivery



Capnography clinical education

Access a wide variety of [clinical education resources](#) to help expand clinical and product knowledge to help you continually enhance patient care and safety.

We offer:

- Complimentary online courses
- Live training and simulation
- Accredited education
- Education grants

[Access Microstream™ capnography monitoring resources.](#)

Microstream™ capnography and Nellcor™ pulse oximetry monitoring systems should not be used as the sole basis for diagnosis or therapy and is intended only as an adjunct in patient assessment.

1. Brostowicz HM, Khodayar Rais-Bahrami K. Oxygen saturation monitoring in the neonatal intensive care unit: evaluation of a new alarm management. Presented at: American Academy of Pediatrics National Conference & Exhibition; October 17-20, 2019; Washington D.C.
2. Stefanescu BM et al. Improving Filtering of Pulse Oximeter Monitoring Alarms in the Neonatal ICU: Bedside Significance. *Resp Care*. 2016 (Vol 61 No 1): 85-89.