

Medtronic

Engineering the extraordinary

Give your smallest patients enhanced comfort and care.

Puritan Bennett™ 980
neonatal ventilator system

Including Synchronized NIV and NIV+



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About Puritan Bennett™

The Puritan Bennett™ 980 neonatal ventilator is the result of 50 years of experience and ongoing innovation – ensuring quality and service, experience and consistency, and reliability and integrity. We’re here to serve you and your smallest patients.

Awards and partnerships

Our partnerships with societies and nonprofits help drive research, community connection, and solutions to the specific challenges NICU patients face regularly.

 [Watch the video](#)



2022 recipient of the American Association for Respiratory Care's Zenith Award – the “people’s choice award” of respiratory care

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Keeping NICU babies safe
and comfortable

We're passionate about helping your smallest patients
breathe better, and we do that by focusing on what
matters most.

We designed the Puritan Bennett™ 980 neonatal
ventilator to deliver ventilation that helps enhance
comfort and care for NICU patients, with a focus on
synchrony, accuracy, and leak compensation to help
avoid the complications associated with intubation.¹

Recommended
for neonates
weighing as little
as 0.66 lbs (300 g)



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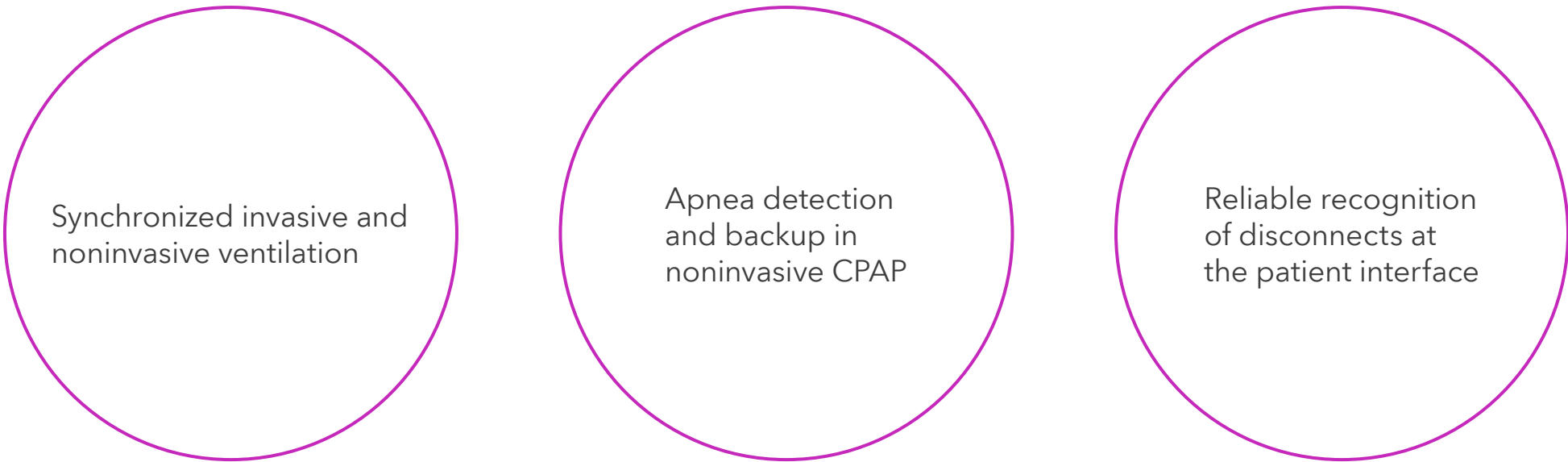
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Simple and smart ventilation for your most vulnerable newborns

Get to know the features that set the Puritan Bennett™ 980 ventilator apart and why clinicians choose it for their most critical patients.

Puritan Bennett™ 980 neonatal ventilator NICU product tour



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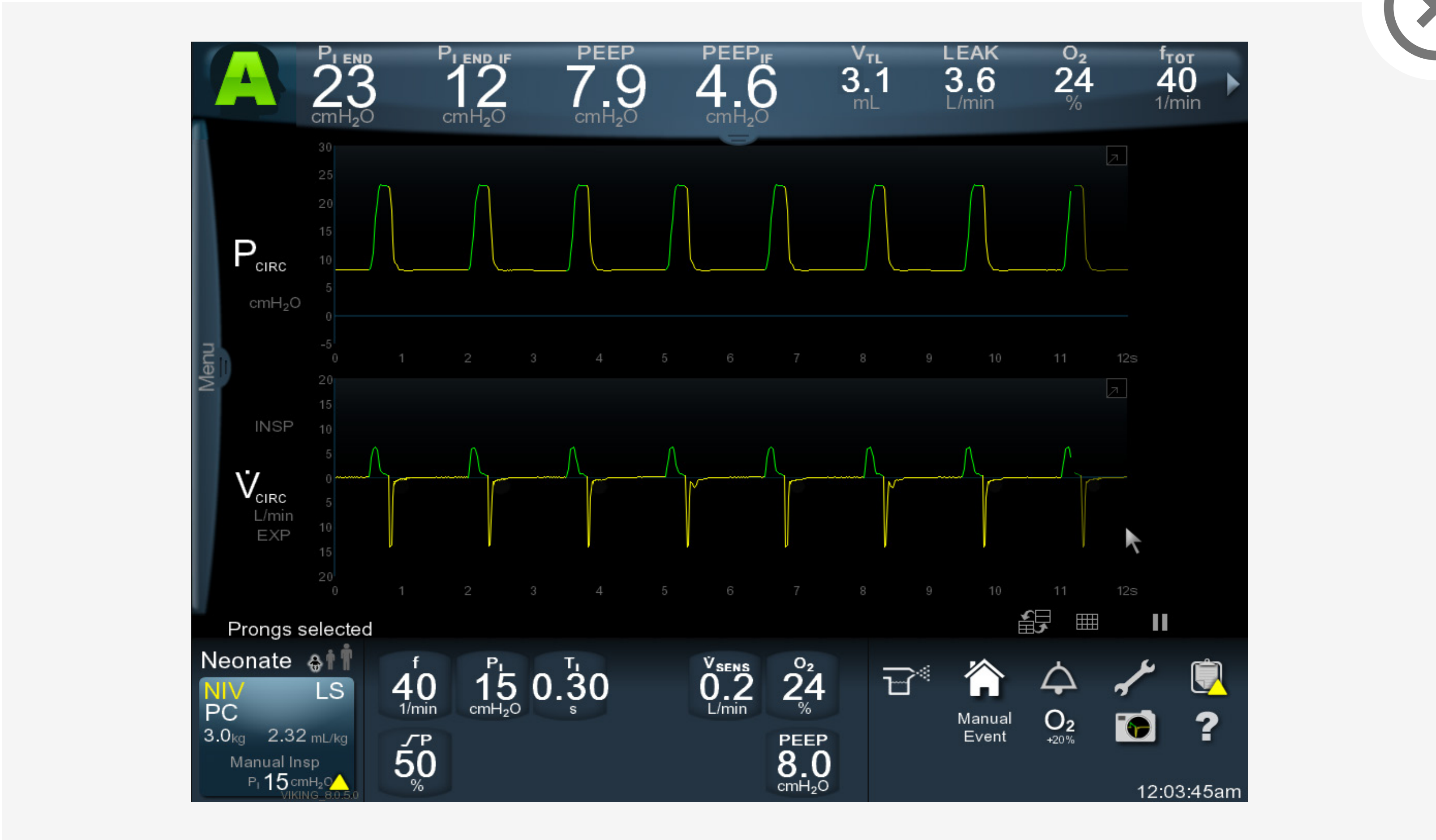
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How can we help improve NICU ventilation?

NICU ventilation requires accuracy, synchrony, and responsiveness. See how the Puritan Bennett™ 980 neonatal ventilator stacks up in these areas. You are changing the way you care for your smallest patients, and we're changing alongside you to help advance your care.



NICU ventilation product tour

Accuracy

Proven tidal volume accuracy during noninvasive neonatal ventilation.²

More details

Synchrony

Recognize leaks to help distinguish patients' spontaneous breaths and minimize the work of breathing.³

More details

Responsiveness

Ensure patient-triggered ventilation as well as accurate volume delivery and monitoring with or without the use of a proximal flow sensor.

More details

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Accuracy

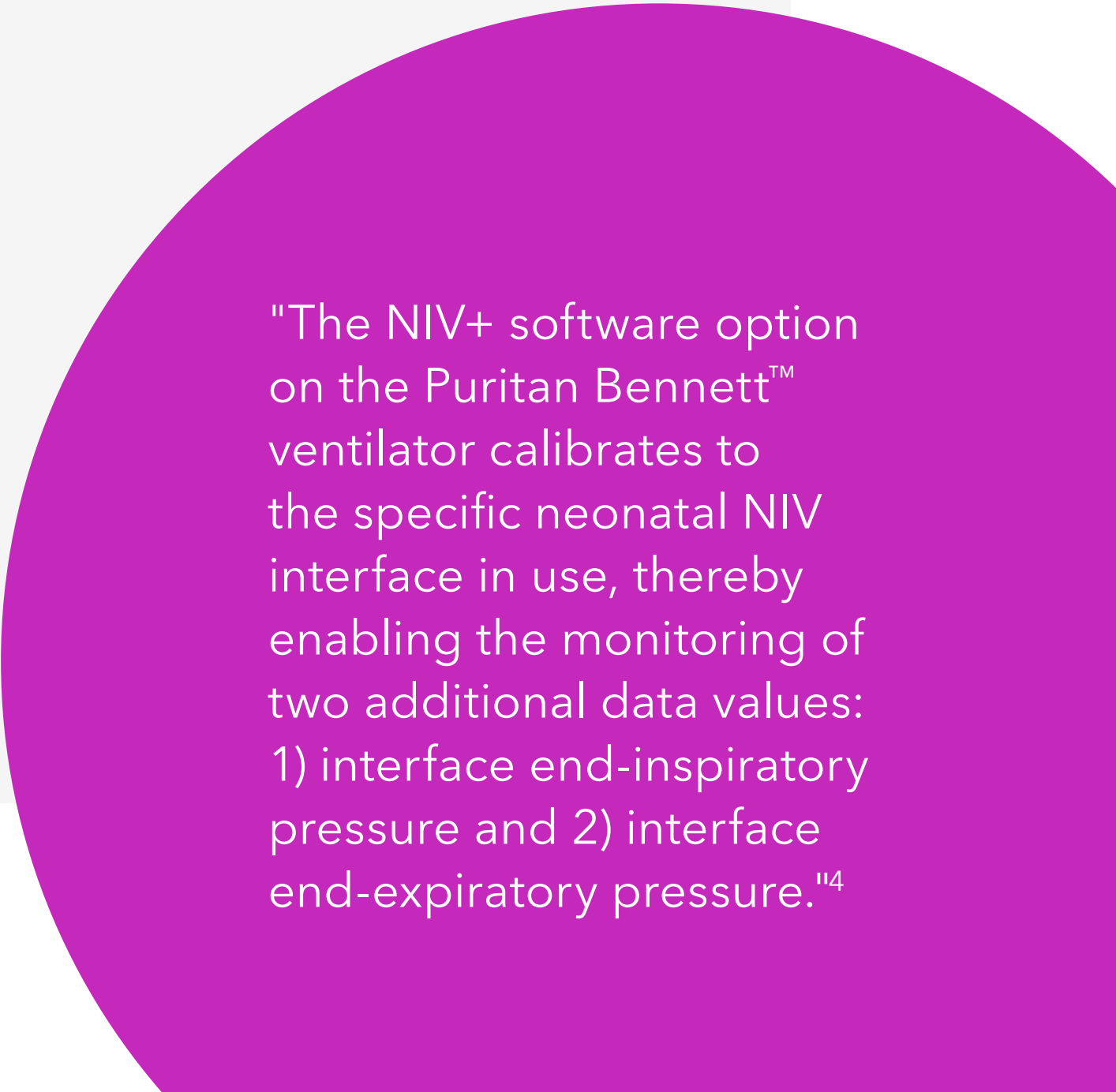
Accuracy is a critical component in delivering safe and effective ventilation for NICU patients. The Puritan Bennett™ 980 neonatal ventilator [provides safe and accurate ventilatory support](#) by better managing breath delivery.² With changing patient conditions, like sedation levels or patient position, maintaining accurate ventilation is key to providing consistent care.

Are you ‘Flying Blind’ with NIV pressures?

Learn how these two new measurements – interface end-inspiratory pressure and interface end-expiratory pressure – provide a more representative reading of the true pressures being delivered to the patient.⁴ Featuring: Greg Spratt, BS, RRT, CPFT

More info on NIV+ software

See the evidence



"The NIV+ software option on the Puritan Bennett™ ventilator calibrates to the specific neonatal NIV interface in use, thereby enabling the monitoring of two additional data values: 1) interface end-inspiratory pressure and 2) interface end-expiratory pressure."⁴

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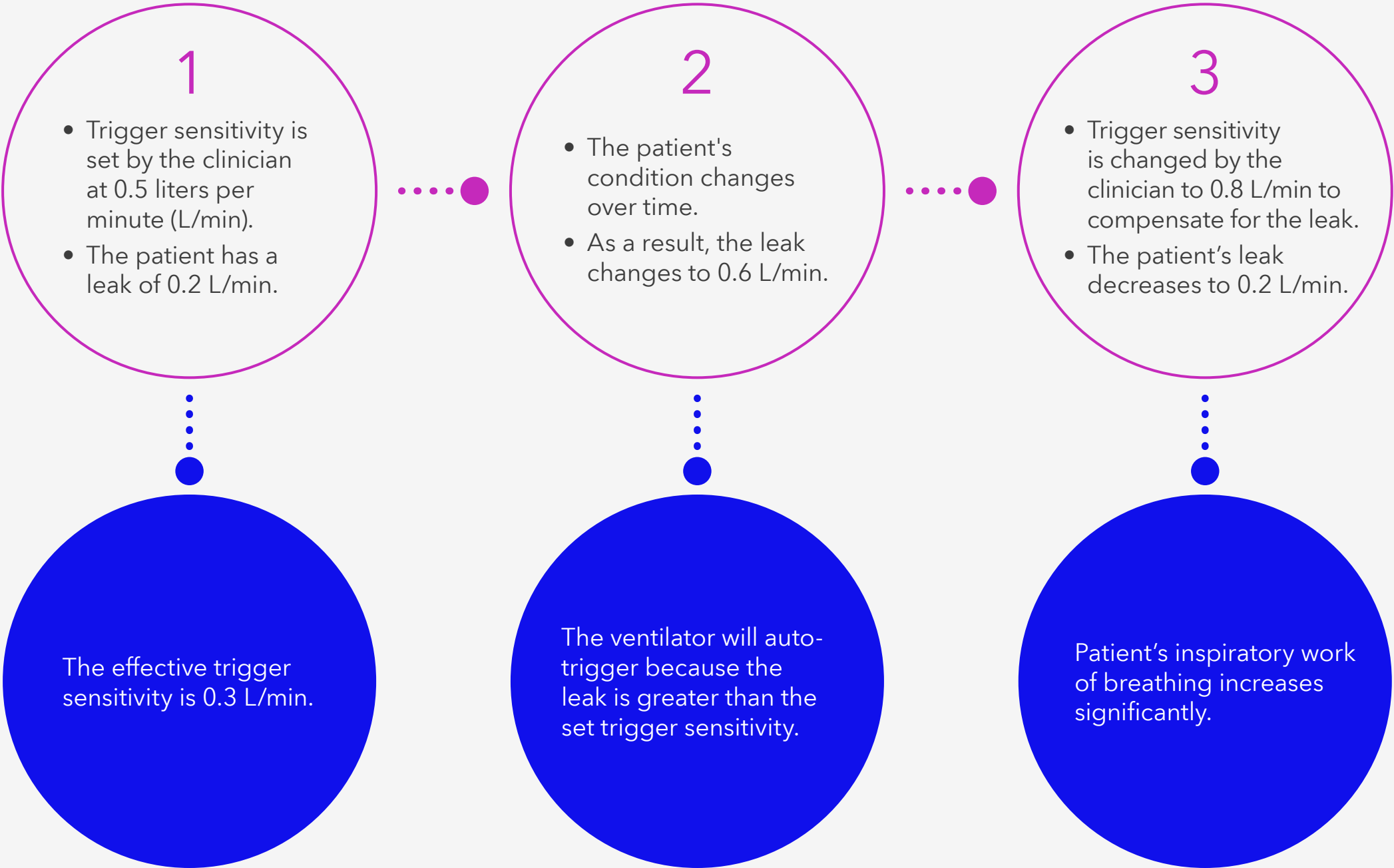
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Synchrony

Airway leaks are common with both invasive and noninvasive neonatal ventilation – and can result in a variety of trigger and cycle asynchronies.³ Patient-ventilator asynchrony can increase the patient's work of breathing and time on the ventilator.³ Delivering synchronized breaths, with both invasive and noninvasive ventilation, can have important benefits for neonates.³

Example consequences of ineffective leak compensation



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Responsiveness

Gentle, responsive ventilation, matched to a neonate's lung volume and breathing rhythm, may reduce stress and help improve outcomes.⁵ The Puritan Bennett™ 980 neonatal ventilator is designed to be responsive to patient efforts and [provide accurate volume monitoring and management](#) with or without a proximal flow sensor. The ventilator can provide synchronized breath delivery while ventilating invasively or noninvasively and when delivering a nebulizer treatment inline.⁶



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See how software sets us apart

The Puritan Bennett™ 980 neonatal ventilator is built
on state-of-the-art breath-delivery technology that
includes innovative software features, such as:

NIV+ software

Leak Sync software

NeoMode 2.0 software



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NIV+ software

The right feedback on pressure delivery for your NICU patients

NIV+ software helps support the holistic picture of how a neonate’s respiratory care is managed with the Puritan Bennett™ 980 neonatal ventilator. It was designed to provide two new accurate ventilation pressures.

By showing you actual delivered pressure, this software may help you determine effective pressure delivery to your patient. It also can help you to assess the impact of leaks on pressure delivery and provide a reliable alert of disconnect.

NIV+ software can help with:

- Calibration for prongs and masks
- Monitored data values that reflect end-inspiratory and end-expiratory pressures at the patient
- Efficiency of neonatal ventilation with varying interfaces and variable leaks

Measure end-inspiratory and end-expiratory pressures at the patient interface with NIV+ software.

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Leak Sync software

Addresses leak-related issues during neonatal ventilation:

- Triggering and cycling synchrony
- Appropriate pressure and volume management for volume-targeted breaths
- Work of breathing

For invasive ventilation, Leak Sync software:

- Acclimates to all leaks (one of only two ventilators to do so in a comparative study and the only ventilator recommended in a volume-targeted strategy)³
- Allows for accurate volume monitoring during lung-protective VC+ and VS breath types

For noninvasive ventilation, Leak Sync software:

- Acclimates to all leaks in NIV (only ventilator to do so in a comparative study)³
- Facilitates synchronized NIPPV
- When compared to nasal CPAP, synchronized NIPPV decreases the incidence of:
 - Respiratory failure⁷
 - Asynchronous thoracoabdominal motion⁸
 - The need for intubation³

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NeoMode 2.0 software

Providing safe ventilatory support for neonates

The Puritan Bennett™ NeoMode 2.0 software option offers a broad range of functionality that helps clinicians effectively ventilate neonates.

This software option includes features that allow clinicians to:

- Set a tidal volume as small as 2 mL[†] for neonatal patients weighing as little as 300 grams
- Adjust the ideal body weight (IBW) setting without disconnecting the patient or interrupting ventilation
- Exercise greater control over the FiO₂ setting by temporarily increasing FiO₂ in increments as small as 1%
- Deliver effective noninvasive ventilation, with several modes of ventilation
- Adjust tidal volume in increments as small as 0.1 mL when ventilating with volumes between 2 mL and 5 mL
- Enable responsive breath triggering during invasive and noninvasive ventilation by adjusting the flow sensitivity from 0.1 to 10 L/min

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[†]TVC+ mode only.

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Added safety in the NICU

Safety features can provide peace of mind in the NICU. See the extra steps we've taken to ensure your smallest patients are protected.

Ventilator assurance

- Allows ventilation to continue in the event of certain system failures

Status display

- Provides a back-up display, even if the graphic user interface is unavailable

Standby state

- Pauses ventilation and preserves settings while the patient is disconnected
- Autodetects patient upon reconnection

2 mL

Delivers tidal volumes
as low as 2 mL for
neonates weighing as
little as 300 g

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At your service in the NICU

Our service team provides expertise, delivered without compromise. We're here for you any time – 24/7/365. And like you, we understand that capital equipment is more than a purchase – it's a lifecycle investment.

Our trusted service partnership includes:

- Customizable service offerings, ranging from comprehensive to shared service
- Demonstrated economic value through our service agreements
- Tracking maintenance schedules and managing OEM parts inventory
- Local support from engineers in all 50 states
- Field service engineer customer satisfaction averaging 9.8 out of 10⁹



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Total NICU care

See how we support patients and clinicians with best-in-class therapies, protection, and monitoring.

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NICU product portfolio

We are proud of our airway management technologies that help patients and healthcare providers breathe easier. Get to know our NICU product portfolio:

Airway protection

- Shiley™ airways tracheostomy and endotracheal tubes

Breathing systems

- DAR™ filters
- Breathing circuits
- TY-CARE™ closed suction systems
- Jacketed circuits

Adjunctive therapies

- SonarMed™ airway monitoring system
- Active humidification
- High-flow oxygen therapy
- Puritan Bennett™ cuff pressure manager

Ventilators

- Puritan Bennett™ 980 ventilator
- Puritan Bennett™ 840 ventilator



†The SonarMed™ airway monitoring system should not be used as the sole basis for diagnosis or therapy and is intended only as an adjunct in patient assessment.

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Explore the portfolio

- Acute care ventilation
- NICU ventilation
- Ventilator filters
- Intubation
- Tracheostomy
- Active humidification
- Automatic cuff pressure management



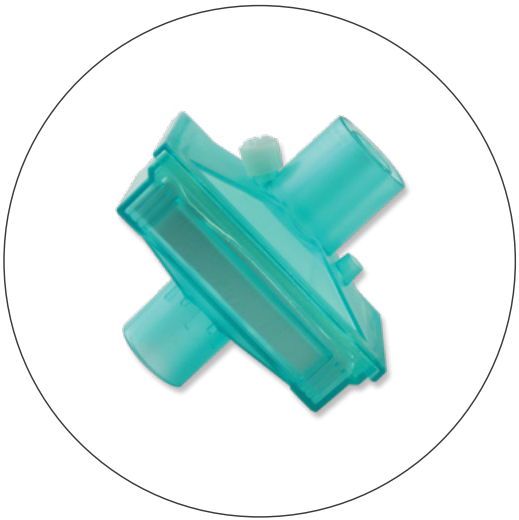
Puritan Bennett™
980 ventilator



Puritan Bennett™ cuff
pressure manager



SonarMed™ airway
monitoring system



DAR™ filters



Shiley™
tracheostomy tubes



Shiley™
endotracheal tubes

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Get started today.

Contact us at [medtronic.com/NICU](https://www.medtronic.com/NICU)

Please pay close attention to warnings and their associated consequences as described in the Puritan Bennett™ 980 ventilator operator’s manual.

The ventilator system is not intended to be a comprehensive monitoring device and does not activate alarms for all types of conditions. Do not operate the ventilator in a magnetic resonance imaging (MRI) environment. Risks associated with using a mechanical ventilator include but are not limited to hypoxemia, hypercarbia, hypocarbia, and infection.

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9. Service 800 survey data 4/2021 -3/2022. Used with permission.

