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Introducing IE Sync™ software for the Puritan Bennett™ 980 ventilator

# Get in sync with your patient's rhythm.

# Making every breath count

The ICU can be unsettling for patients who require mechanical ventilation. With limited consciousness and restricted communication, patients have little control over their own comfort.[1,2]

When conventional ventilation modes can't match a patient's breathing pattern, patient-ventilator asynchrony can occur and hinder their recovery.

Powering a unique way for the patient and ventilator to interact, the IE Sync™ software option for the Puritan Bennett™ 980 ventilator is designed to put the patient in control of the start and end of every breath.

And it empowers you to help liberate your patient from mechanical ventilation at the earliest possible time by avoiding the delays that can be the result of late cycling and missed triggering.

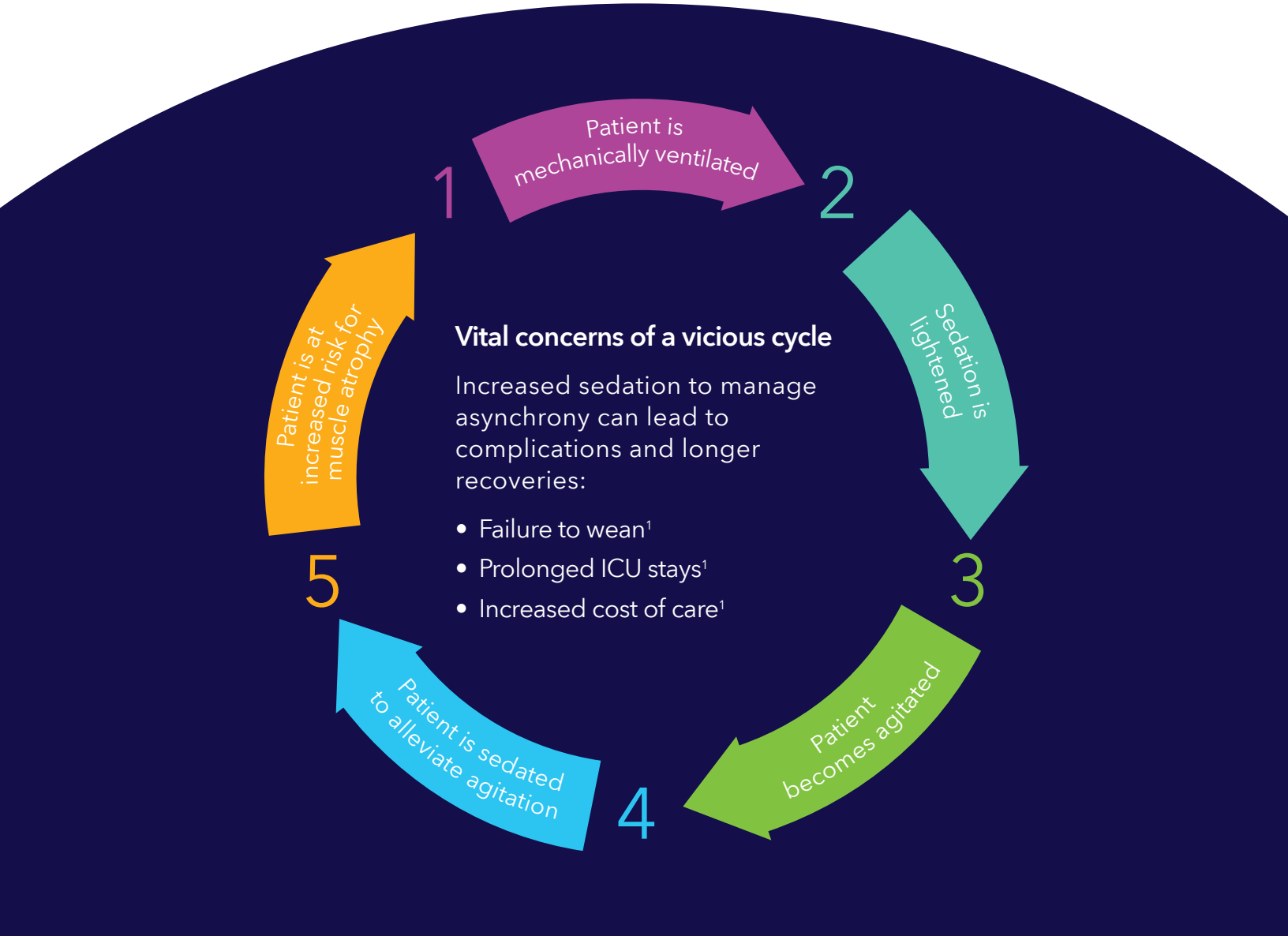
# Break the cycle of asynchrony and sedation.

Patient-ventilator asynchrony is the primary reason 71 percent of ICU patients experience agitation.[1]

Clinicians may increase sedation in response to asynchrony to improve patient comfort. And while greater sedation may alleviate patient anxiety, it can also lead to delirium, longer ventilator dependency,[1] and respiratory muscle atrophy.[3-6]

Asynchrony and sedation can result in this infinite loop that may lead to complications and impact patient outcomes. But the IE Sync™ software option for the Puritan Bennett™ 980 ventilator may help avoid this loop.

Synchronizing with a patient's respiratory rhythms, IE Sync™ software offers a way to help stave off asynchrony and prolonged sedation for a more restful and restorative path to recovery.



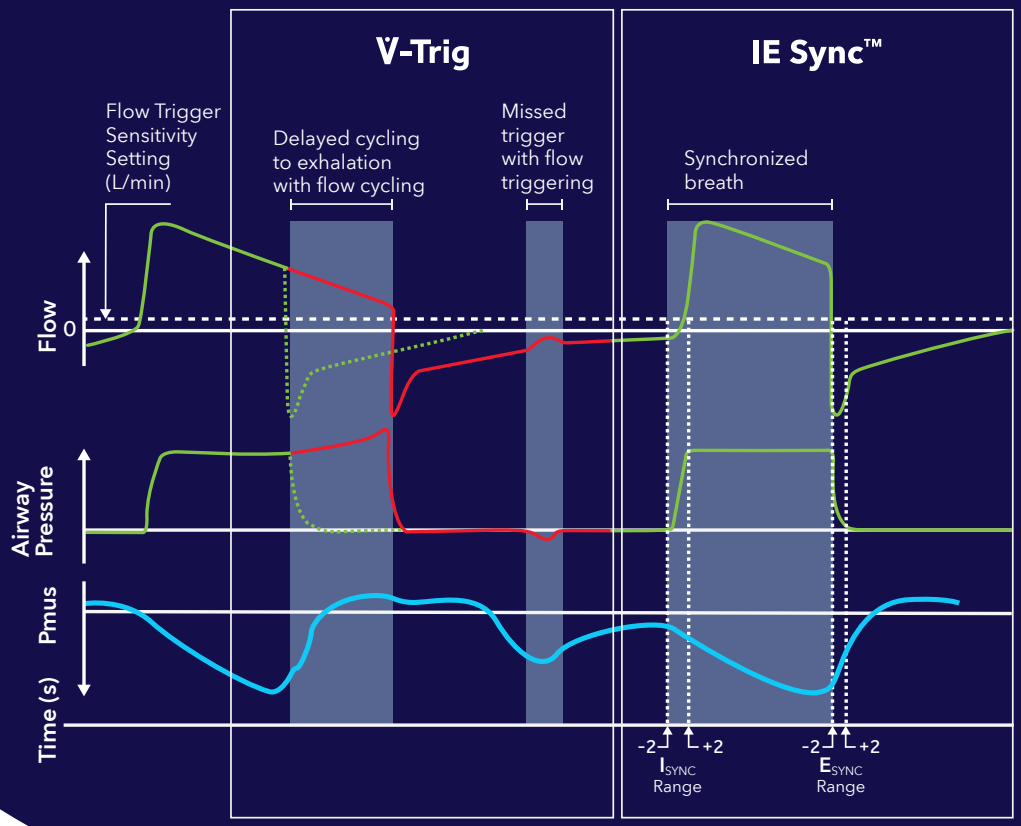
# Detect every breath.

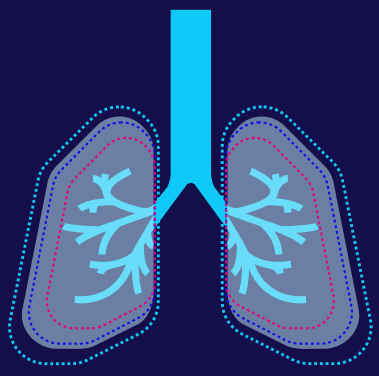
Timing is everything to prevent triggering and cycling asynchrony – especially in patients with certain conditions. In cases of chronic obstructive pulmonary disease (COPD), asynchrony is so common, it impacts up to 80 percent of mechanically ventilated patients.[6]


With conventional triggering and cycling systems, 24 percent of patients experience asynchrony in at least 10 percent of breaths.[7] IE Sync™ was developed to address this problem. With its fine-tuned approach to triggering and cycling, the IE Sync™ software option for the Puritan Bennett™ 980 ventilator is designed to make every breath count for your patient.

IE Sync™ software can even provide timely triggering and cycling of pressure support and volume support breaths when airflow obstruction and air-trapping are present.[8]

For patients, that may amount to fewer missed breaths and potentially less time on ventilators.[7] For clinicians, it may mean avoiding delays in weaning that could impact patient outcomes.



Scan the code to learn more about IE Sync™ software and to see the lungs in action.

Contact your local Medtronic representative to learn more about the IE Sync™ software option for the Puritan Bennett™ 980 ventilator.

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1. Siegel MD. Management of agitation in the intensive care unit. *Clin Chest Med*. 2003:24(4):713–725.
2. Tate JA, Devito Dabs A, Hoffman LA, Milbrandt E, Happ MB. Anxiety and agitation in mechanically ventilated patients. *Qual Health Res*. 2012;22(2): 157–173.
3. Epstein SK. Optimizing patient-ventilator synchrony. *Semin Respir Crit Care Med*. 2001;22(2):137–152.
4. Pohlman MC, McCallister KE, Schweickert WD, et al. Excessive tidal volume from breath stacking during lung-protective ventilation for acute lung injury. *Crit Care Med*. 2008;36(11):3019–3023.
5. Levine S, Nguyen T, Taylor N, et al. Rapid disuse atrophy of diaphragm fibers in mechanically ventilated humans. *N Engl J Med*. 2008;358(13):1327–1335.
6. deWit Marjolein, Miller Kristin B, Green David A, Ostman Henry E, Gennish C, Epstein Scott K Ineffective triggering predicts increased duration of mechanical ventilation. *Critical Care Med*. 2009;37(10):2740–2745.
7. Thille AW, Rodriguez P, Cabello B, Lellouche F, Brochard L. Patient-ventilator asynchrony during assisted mechanical ventilation. *Int. Care Med*. 2006;32:1515–1522.
8. PB980 Triggering Performance Study, Flow triggering vs IE Sync Triggering. Engineering report RE00222008 RevA, Carlsbad, CA




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