

SMALL PATIENTS. BIG DECISIONS. CONFIDENCE IN DELIVERY.



Pulse oximetry can help you guide interventions in Labour & Delivery — or frustrate your efforts to respond effectively. The difference depends on the technology and its ability to post timely and accurate information in real-world conditions. See how Nellcor™ pulse oximetry with Oximax™ technology meets five key challenges in the delivery room.

**FASTER, ACCURATE READINGS WITH A CARDIAC-BASED TECHNOLOGY.
ALL FROM THE HEART.**

Challenge 1



Speed to post

Seconds count in neonatal care decisions.¹ Don't lose them waiting for an accurate vital signs reading.

Up to 6 seconds faster to post heart rate

A Medtronic analysis of studies by Saraswat² and O'Donnell³ shows that Nellcor™ pulse oximetry posted data several seconds faster than other, similar pulse oximeters.

Challenge 2



Accurate pulse rates

Inaccurate pulse rate readings may guide clinicians to inappropriate or unnecessary interventions.⁴

No deviation from ECG readings

Nellcor™ pulse oximetry showed no clinically significant difference from ECG reference.⁴

Challenge 3



Motion

Neonate motion can cause irregular venous blood flow that affects accurate monitoring.⁴

95%+ specificity in measurements⁵

Nellcor™ pulse oximetry was the first motion tolerant technology to comply with ISO 80601-2-61.3.⁵

Challenge 4



Poor perfusion

Saturation rates as low as 66% in the first minutes of life may make neonates difficult to assess.^{4,6}

60% SpO₂ +/- 3% accuracy⁷

Nellcor™ pulse oximetry has demonstrated best-in-class accuracy at saturation rates as low as 60%.⁷

Challenge 5



Skin sensitivity

Monitoring may be unavoidable, even though attaching a sensor may pose a risk to the fragile skin of a newborn.⁸

No adhesives

Nellcor™ non-adhesive sensors use the patients' own skin moisture to secure sensor, while comparable in accuracy to adhesive sensors.⁹

Guide gentle, minimally invasive care for your most fragile patients. See how Nellcor™ pulse oximetry can support your clinical decisions.

Visit [medtronic.ca/rms](https://www.medtronic.ca/rms)

1. Wyckoff MH, Aziz K, Escobedo MB, et al. Part 13: neonatal resuscitation: 2015 American Heart Association guidelines update for cardiopulmonary resuscitation and emergency cardiovascular care. *Circulation*. 2015;132(suppl 2):S543-S560.
2. Saraswat A, Sirmionato LK, Dawson JA, et al. Determining the best method for nellcor pulse oximeter sensor application in neonates. *Acta Paediatr*. 2012;101(5):484-487. doi: 10.1111/j.1651-2227.2011.02571.x.
3. O'Donnell CP, Kamlin CO, Davis PG, Morley CJ. Obtaining pulse oximetry data in neonates: a randomized crossover study of sensor application techniques. *Arch Dis Child Fetal Neonatal Ed*. 2005;90:F84-F85. doi: 10.1136/adc.2004.058925.
4. Rabi Y, Dawson JA. Oxygen therapy and oximetry in the delivery room. *Semin Fetal Neonatal Med*. 2013;18(6):330-5. doi: 10.1016/j.siny.2013.08.007.
5. Louie A, Feiner JR, Bickler PE, Rhodes L, Bernstein M, Lucero J. Four types of pulse oximeters accurately detect hypoxia during low perfusion and motion. *Anesthesiology*. 2018;128(3):520-530. doi: 10.1097/ALN.0000000000002002.
6. Dawson JA, Kamlin CO, Vento M, et al. Defining the reference range for oxygen saturation for infants after birth. *Pediatrics*. 2010;125(6):e1340-e1347. doi: 10.1542/peds.2009-1510.
7. Nellcor Oxygen Saturation Accuracy Specification Grid. Internal data on file.
8. Widiati E, Nurhaeni N, Gayatri D. Medical-device related pressure injuries to children in the Intensive Care Unit. *Compr Child Adolesc Nurs*. 2017;40(sup1):69-77. doi: 10.1080/24694193.2017.1386973.
9. Medtronic. Nellcor™ Non-adhesive Sensors Brochure. 2018.