

sentec

Advancing Noninvasive
Patient Monitoring



Watch the lungs breathe!

Regional lung function monitoring powered
by Electrical Impedance Tomography (EIT)

Continuous monitoring – without radiation exposure



Highly compact electronics wrapped in soft, breathable fabric

Sentec's LuMon System uses electrical impedance tomography (EIT) – where weak electrical signals are applied and converted into images – to enable clinicians to visualize lung function at the bedside continuously, noninvasively, and without exposure to radiation.

LuMon™ Monitor

- Standalone device
- Compact & lightweight design
- Versatile and intuitive graphical user interface (GUI)

LuMon™ Belt

SenTec's LuMon™ Belt features an adhesive-free, textile belt/skin interface, which is particularly important for patients with sensitive and fragile skin. They are available in seven different sizes to fit even the smallest newborn.

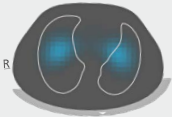
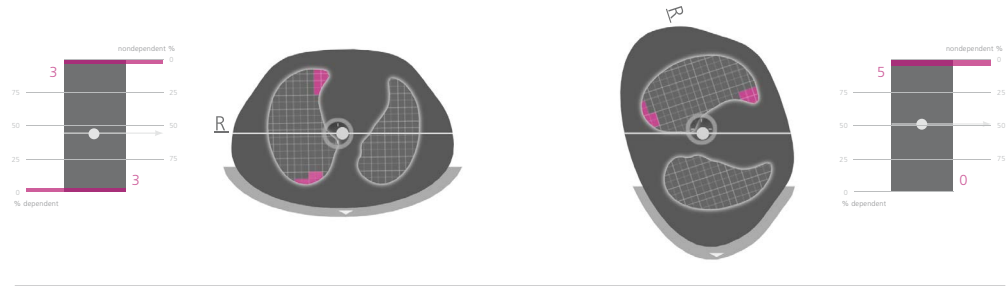
The LuMon™ Belt, is secured around the newborn's chest. Its 32 embedded electrodes assess the ventilation in different lung regions, constantly converting the measured data into images.

LuMon™ Belts are for single-patient use and can be used for up to 72 hours.

Silent Spaces: See what really matters

The so called Silent Spaces – lung areas receiving little or no ventilation – occur for a variety of reasons including lung collapse, fluid build-up or even overdistension. The LuMon™ System allows visualization of Silent Spaces and provides insight into potential causes (depending if Silent Spaces are in dependent or non-dependent lung areas) so that further examination and appropriate treatment can be delivered.

Reliable data regardless of patient positioning



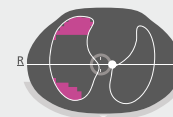
VentView

Watch the distribution of air within the lungs during breathing just like a movie. This information on regional ventilation is brought to you continuously and in real-time.



LuFuView

The LuFuView images update with each breath, displaying vibrant indicators of regional lung function.



Silent Spaces

Finally see what really matters. The Silent Spaces images are designed to highlight lung areas receiving little or no ventilation to help detect collapsed, fluid-filled, or distended lungs – even pneumothoraces or pleural effusions.

Innovative and cost-effective technology

sentec

Advancing Noninvasive Patient Monitoring

EIT-based, regional lung function monitoring has the potential to optimize mechanical ventilation, to reduce ventilator-induced lung injuries and shorten the duration of mechanical ventilation.

The use of EIT may help neonatologists choose between intubation and non-invasive ventilation, in assessing surfactant therapy, or to identify potentially harmful conditions such as displacement of the endotracheal tube, pneumothorax, and pleural effusion ^[1, 2].

In comparison to standard care, the use of EIT in preterm neonates is furthermore expected to result in cost-savings, lower mortality, and reduced rate of Bronchopulmonary Dysplasia (BPD) ^[3]. SenTec's skin-friendly LuMon™ Belts provide gentle care for the NICU's most fragile patients ^[4].

References:

[1] Masner et al.: *Electrical impedance tomography for neonatal ventilation assessment: a narrative review. J. Phys.: Conf. Ser.* 2109, 1272: 012008.

[2] Rahtu et al.: *Early Recognition of Pneumothorax in Neonatal Respiratory Distress Syndrome with Electrical Impedance Tomography. Am J Respir Crit Care Med.* 2019, 200(8): 1060-1061.

[3] Voermans A et al.: *Early cost-effectiveness analysis of continuous monitoring of lung-aeration with electrical impedance tomography in preterm neonates with respiratory distress syndrome. Presented at ISPOR Europe 2019, Copenhagen, Denmark.*

[4] Becher et al.: *Feasibility and safety of prolonged continuous monitoring with electrical impedance tomography in neonates and infants with respiratory failure. Intensive Care Med.* 2019, 7(3): 55.



2ST800-111 Rev000 © SenTec AG, 11/2020



Contact us!

call: + 41 (0) 81 330 09 70
mail: info-eit@sentec.com
visit: www.sentec.com

SenTec AG
Kantonsstrasse 14, CH-7302
Landquart, Switzerland