

# BLES<sup>®</sup>cath

Intratracheal catheter

For less invasive administration of pulmonary surfactant

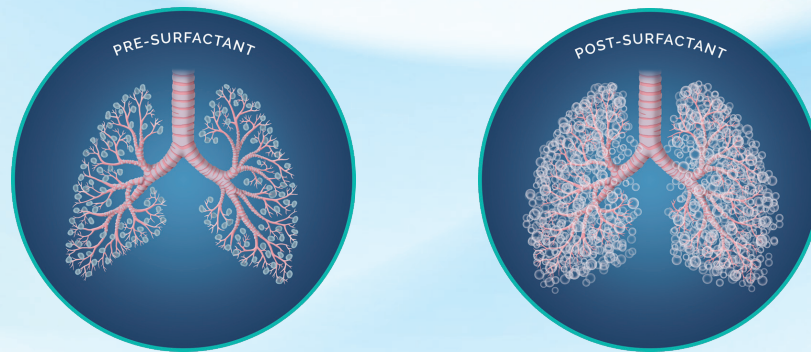
An innovative solution for fast,  
effective mitigation of NRDS

## What is NRDS?

Neonatal respiratory distress syndrome (NRDS) is responsible for high mortality and morbidity in premature neonates (gestational age less than 37 weeks)<sup>1</sup>.

Surfactant is essential for normal lung function<sup>2</sup>. NRDS is caused by lack of surfactant, a complex mixture of phospholipids and proteins that lines the lung air spaces to reduce surface tension at the air-liquid interface preventing the collapse of alveoli<sup>3</sup>.

The desire to improve the survival rate of preterm neonates affected by NRDS propelled researchers to investigate therapies for this condition<sup>4</sup>. Exogenous pulmonary surfactant, such as BLES<sup>®</sup>, is integral to the management of NRDS.



BLES Biochemicals Illustration, Pre surfactant vs. post surfactant. London, Canada: BLES; 2022.

## What is LISA/MIST?

The less invasive surfactant administration (LISA) / minimally invasive surfactant therapy (MIST) method uses a thin catheter inserted into the trachea to deliver exogenous pulmonary surfactant to a spontaneously breathing patient supported by continuous positive airway pressure (NCPAP) or nasal intermittent positive pressure ventilation (NIPPV)<sup>5</sup>. Note: Please follow the established protocols of your healthcare center when using this procedure.

BLES<sup>®</sup> administered using the LISA/MIST technique is intended for neonates  $\geq 28$  weeks gestation and/or  $\geq 1000$  grams. For non-spontaneously breathing patients, use the Intubate-Surfactant-Extubate (InSurE) technique<sup>5</sup>.

- With LISA, long-term follow-ups have reported better pulmonary function and neurocognitive outcomes<sup>6</sup>.

- Studies have shown that LISA is superior to nCPAP alone or the InSurE technique in reducing the risk of developing bronchopulmonary dysplasia (BPD) and intracranial hemorrhage (ICH)<sup>6,7</sup>.

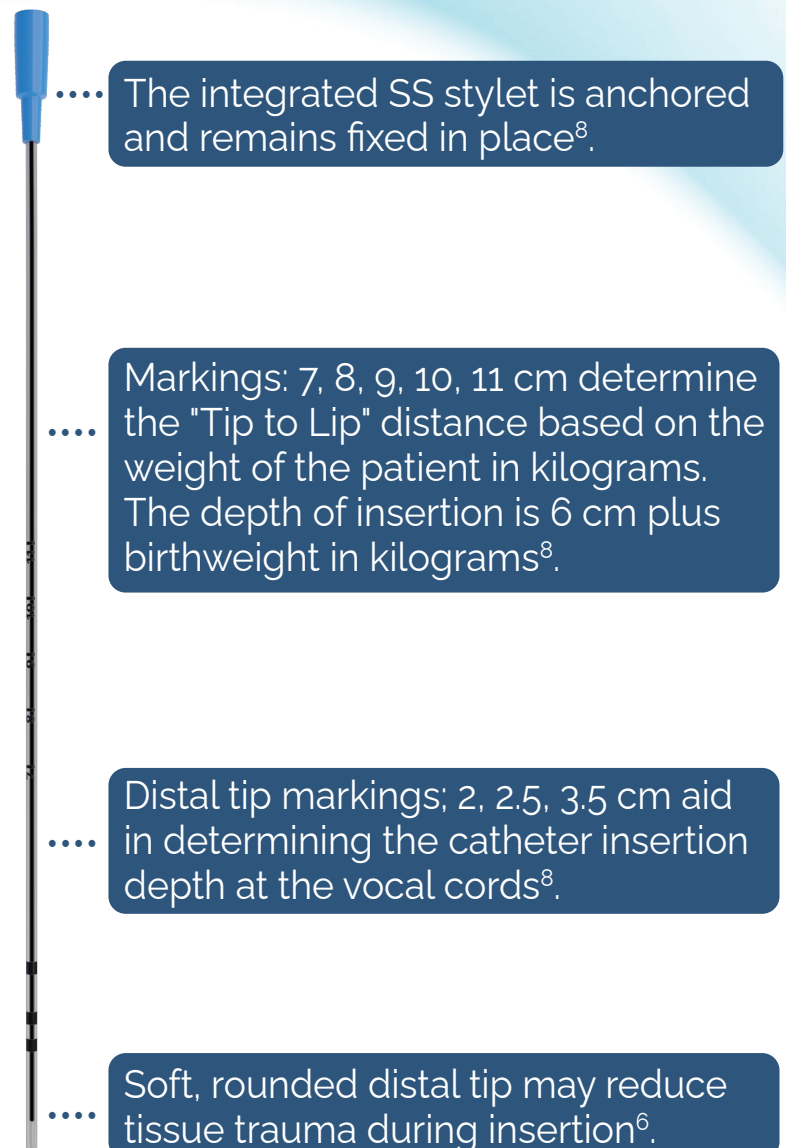
## What is BLEScath®?

BLEScath® is intended for the administration of BLES® using the LISA technique for rescue treatment of infants suffering from NRDS<sup>8</sup>.

### Pivotal Benefits

BLEScath® is for BLES® administration using the LISA method<sup>8</sup>. The administration of surfactant via a thin catheter compared with an endotracheal tube is associated with a reduced risk of death or BPD<sup>9</sup>. LISA may offer cost savings to institutions by decreasing the need for ventilation, consumables, diagnostic procedures, and investigations<sup>10</sup>.

BLEScath® is a user-friendly device with an integrated stainless steel (SS) stylet that may be suitable for healthcare practitioners who may not be familiar with the use of Magill forceps<sup>11</sup>. BLEScath® is designed to be compatible with bovine lipid extract surfactant suspension, a low-viscosity surfactant. BLEScath® has not been tested with other commercially available pulmonary surfactants.



User-friendly semi-rigid intratracheal catheter reducing the need for Magill forceps<sup>11,12</sup>.

The SS stylet allows the catheter to be bent into the user's preferred shape<sup>8</sup>.

The SS stylet is rigid yet flexible for ease of insertion<sup>8</sup>.

Thin diameter 5 Fr catheter maintains physiologic pharyngeal function<sup>6,8</sup>.

## Technical Specifications

Size	5 Fr
Length	205 mm

## Material Specifications

- Latex Free
- Stainless Steel
- Di(2-ethylhexyl) phthalate (DEHP) Free
- Radiopaque polyvinyl chloride (PVC)



BLEScath's® SS stilet, the first of its kind, keeps its desired shape during the procedure. The integrated SS stilet is anchored and remains fixed in place.



Research has shown successful administration of BLES® via LISA in 95.3% of patients studied<sup>12</sup>.

## Ordering Information

Each package contains one 5 Fr catheter with integrated SS stilet.

1 unit = 1 catheter

10 units per case

✉ [info@blesbiochem.com](mailto:info@blesbiochem.com)

☎ +1-519-457-2537

📠 +1-519-457-7470

### References

1. Najafian, B., Khosravi, M. H. Neonatal Respiratory Distress Syndrome: Things to Consider and Ways to Manage. In: Barria, R. M., editor. Update on Critical Issues on Infant and Neonatal Care [Internet]. London: IntechOpen; 2020.
2. Soll R, Özek E. Prophylactic animal derived surfactant extract for preventing morbidity and mortality in preterm infants. Cochrane Database of Systematic Reviews 1997, Issue 4.
3. Griese M. Pulmonary surfactant in health and human lung diseases: state of the art. Eur Respir J. 1999 Jun;13(6):1455-76.
4. Sweet DG, Carnielli V, Greisen G, Hallman M, Ozek E, te&nbsp;P&nbsp;A, et al. European consensus guidelines on the management of respiratory distress syndrome – 2019 update. Neonatology. 2019;115(4):432–50.
5. BLES® Product Monograph, Jan.31, 2022.
6. Herting E, Härtel C, Göpel W. Less invasive surfactant administration. Current Opinion in Pediatrics. 2020;32(2):228–34.
7. Lemyre B, Lacaze-Masmonteil T, Shah PS, Bodani J, Doucette S, Dunn M, et al. Poractant alfa versus bovine lipid extract surfactant: Prospective Comparative Effectiveness Study. Journal of Perinatology. 2022;42(4):468–75.
8. BLEScath® Instructions for Use (IFU) MDO102C.
9. Abdel-Latif ME, Davis PG, Wheeler KI, De Paoli AG, Dargaville PA. Surfactant therapy via thin catheter in preterm infants with or at risk of respiratory distress syndrome. Cochrane Database of Systematic Reviews. 2021;2021(5).
10. Federici C, Fornaro G, Roehr CC. Cost-saving effect of early less invasive surfactant administration versus continuous positive airway pressure therapy alone for preterm infants with respiratory distress syndrome. European Journal of Hospital Pharmacy. 2021.
11. Vento M, Bohlin K, Herting E, Roehr CC, Dargaville PA. Surfactant administration via thin catheter: A practical guide. Neonatology. 2019;116(3):211–26.
12. Bhattacharya S, Read B, McGovern E, da Silva O. High-volume surfactant administration using a minimally invasive technique: Experience from a Canadian neonatal intensive care unit. Paediatrics & Child Health. 2018;24(5):313–7.

For more information, please visit our website [BLEScath.com](http://BLEScath.com)

**BLES**  
Biochemicals Inc.

BLES Biochemicals Inc.  
60 Pacific Court, Unit 8  
London, Ontario,  
Canada N5V 3K4