# Prone positioning and Nimbus Professional alternating pressure system





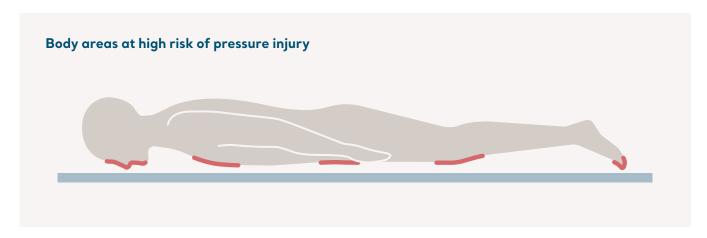
## Prone positioning and pressure injury complications

Lengthy prone positioning sessions in critical care, are associated with an increased frequency of pressure injury development.<sup>1</sup>

Such injuries can lead to a protracted hospital stay, patient suffering, possible surgical intervention, and increased costs of care <sup>2</sup>

When utilised, patients often spend up to 16 hours out of every 24 hour period in the prone position.<sup>3</sup>

Caregivers are challenged to prevent pressure injuries developing over body areas such as the face, breast region, genitals, knees and toes, not typically at risk when the patient is managed supine, but at high risk when patients are in the prone position.



Support surface selection, is an important component of the pressure injury prevention strategy to be deployed with this high risk patient population.

### Nimbus Professional alternating pressure mattress replacement system

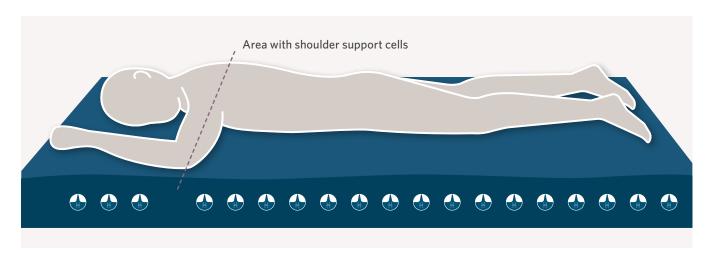
### Pressure redistribution

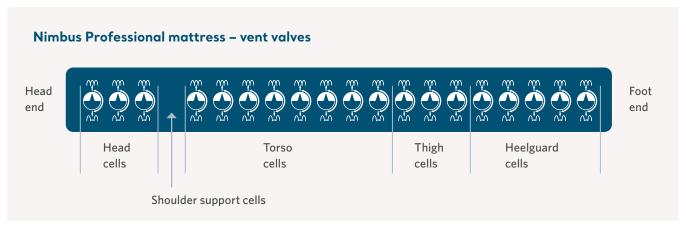
The alternating pressure mode of the Nimbus Professional mattress ensures the pressure under the patient is frequently redistributed through the periodic inflation and deflation of alternate mattress cells over a ten minute cycle. Clinical studies on the Nimbus product range consistently demonstrates excellent outcomes for the most vulnerable patients or those with existing wounds. 4-11



### Zoned wound valve technology

Allows caregivers to completely deflate individual cells under the patient's body, providing an adaptable support surface for the management of highly vulnerable areas. Cell deflation can be targeted at body areas at particular risk.





For prone positioning caregivers can off-load selected cells under the patient for longer periods, as follows:

- Deflate only one cell in the Head Section when the patient is in the supine position, or all three cells in the Head Section can be deflated if appropriate when the patient is in the Prone position. Ensure the head, neck and airway are appropriately supported
- Deflate only one cell in the torso section.
- Deflate only one cell in the thigh/heel section.



### Infection Control

The Nimbus Professional mattress also offers the addition benefit of a welded cover with Arjo's Premium Fabric (optional). Premium cover fabric is one of the toughest medical fabrics available.<sup>12</sup> It is an ideal choice for busy environments where fast, high volume turnaround and frequent cleaning is essential, especially where stronger cleaning agents are required.

For additional information related to other features of the Nimbus Professional mattress please refer to the Nimbus Product Brochure. For further information related to the operation of the mattress or use with prone positioning please refer to the instructions for use.

### References

- 1. Girard R, Baboi L, et al The impact of patient positioning on pressure ulcers in patients with severe ARDS: results from a multicentre randomised controlled trial on prone positioning, Intensive Care Med (2014) 40:397-403
- 2. Bunker D, Thomson M, Chin Necrosis as a Consequence of Prone Positioning in the Intensive Care Unit Case Reports in Medicine Volume 2015, Article ID 762956, 3 pages
- 3. Guerin C, Reignier J, Richard JC, Beuret P, Gacouin A, Boulain T, Mercier E, Badet M, Mercat A, Baudin O, Clavel M, Chatellier D, Jaber S, Rosselli S, Mancebo J, Sirodot M, Hilbert G, Bengler C, Richecoeur J, Gainnier M, Bayle F, Bourdin G, Leray V, Girard R, Baboi L, Ayzac L, Group PS (2013) Prone positioning in severe acute respiratory distress syndrome. N Engl J Med 368:2159–2168
- 4. Ward C, Wubbels M, Schembri L (2012) Using Complete Pressure Off-loading and Advanced Wound Care to Treat a Complex Sacral Pressure Ulcer. Poster Presentation
- 5. Clancy J (2011) Winning the war against pressure ulcers. Poster presentation
- 6. Malbrain M, Hendriks B, Wijnands P et al (2010) A pilot randomised controlled trial comparing reactive air and active alternating pressure mattresses in the prevention and treatment of pressure ulcers among medical ICU patients. Journal of Tissue Viability 19(1):7-15
- 7. Finnegan MJ (2008). Comparing the effectiveness of a specialised alternating air pressure mattress replacement system and an air fluidised integrated bed in the management of post- operative flap patients. A randomised controlled study. Journal of Tissue Viability 17(1): February 2008
- 8. Russell L, Reynolds TM (2000) Randomised controlled trial of two pressure relieving systems. Journal of Wound Care 9(2):52-55
- 9. Evans D, Land L, Geary A (2000). A clinical evaluation of the Nimbus 3 alternating pressure mattress replacement system. Journal of Wound Care 9(4):181-186
- 10.Land L, Evans D, Geary A et al (2000) A clinical evaluation of an alternating pressure mattress replacement system in hospital and residential care settings. Journal of Tissue Viability 10(1): 6-11
- $11.\ Phillips\ L\ (2010)\ Nimbus\ range\ of\ pressure\ redistributing\ mattresses.\ Wounds\ UK,\ 2010,\ 6\ (2):\ 116-122$
- 12. The Impact of Cleaning Chemicals on Polyurethane Mattress Cover Materials and their Propensity for Physical Damage, Jo Milnes MA(Hons), MSc(Dist): Technical Manager, Dartex Coatings Limited, Acton Close, Long Eaton, Nottingham, NG10 1FZ. 2013

March 2020 Only Arjo designed parts, which are designed specifically for the purpose, should be used on the equipment and products supplied by Arjo. As our policy is one of continuous development we reserve the right to modify designs and specifications without prior notice. <sup>®</sup> and <sup>™</sup> are trademarks belonging to the Arjo group of companies. <sup>©</sup> Arjo, 2020

At Arjo, we are committed to improving the everyday lives of people affected by reduced mobility and age-related health challenges. With products and solutions that ensure ergonomic patient handling, personal hygiene, disinfection, diagnostics, and the effective prevention of pressure injury and venous thromboembolism, we help professionals across care environments to continually raise the standard of safe and dignified care. Everything we do, we do with people in mind.

Arjo AB · Hans Michelsensgatan 10 · 211 20 Malmö · Sweden · +46 10 335 4500

www.arjo.com

