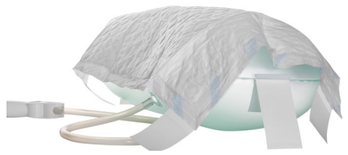
IPV – Inflatable Prone Ventilation

The IPV is a set of inflatable cushions that lift and position the patient for prone ventilation. The IPV is supplied with two covers for more patient protection and comfort.



- Available in different sizes:

  L for patients up to 150 kg (330lb)
  XL for patients up to 180 kg (400lb).

- Compatible with the Hummingbird and the Inflatable Board (IBO).

OPTIMAL POSITIONING

The IPV cushions are designed as a mirror image of the human skeleton. In this way, they support the thorax and pelvis, while leaving the abdomen free. A free hanging abdomen increases the longvolume available for ventilation.

REDUCTION OF BACK STRAIN

The IPV cushions are inflatable and reduce the heavy lifting of patients in the ICU. When used in combination with the Inflatable Board (IBO), the ergonomic burden for the ICU staff is reduced to the minimum.

OPTIMAL HYGIENE

The IPV is world's first disposable prone ventilation support! The IPV is designed for single use or single patient use. This ensures better hygiene in the ICU and avoids spreading infections among patients.

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Application in the Intensive Care Unit

Scientific studies highlight the benefits of optimised PEEP and long recruitment for ARDS patients ventilated in alternating supine/prone position, but it is ergonomically one of the most challenging and demanding position changes for nurses. The IPV (Inflatable Prone Ventilation) consists of a pelvic and a thoracic cushion allowing the patient to lie in prone position with a free hanging abdomen. Prone ventilation allows better respiration and thus maximum lung ventilation and oxygen absorption in the patient's blood. The unique selling point of the Ergotrics innovation is the use of compressed air instead of manual labour, which is an ergonomic breakthrough in the ICU.

Interested in product information or a demo?
info@ergotrics.com • www.ergotrics.com

The science supporting prone ventilation

"In 2018 Guérin et al published a prospective international prevalence study (APRONET study) showing that Prone Ventilation was used in 32,9 % of severe ARDS (Adult Respiratory Distress Syndrome) and was associated with low rate of complications, a significant increase in oxygenation, and a decrease in driving pressure."

- Guérin, C., Beuret, P., Constantin, J.M. et al. (2018). A prospective international observational prevalence study on prone positioning of ARDS patients: the APRONET (ARDS Prone Position Network) study. Intensive care medicine, 44(1), 22-37.

"The effects of prone positioning - During prone ventilation, [...], the diaphragm is displaced caudally (especially in obese patients and when the abdomen is left unsupported), decreasing compression of the posterior-caudal lung parenchyma [1]. These effects improve ventilation and oxygenation [2]."

[1] Agostoni, E., Mead J. Statics of the respiratory system. In: Handbook of Physiology, Macklem P, Mead J (Eds), American Physiologic Society, Bethesda 1986. p.387.
[2] Pelosi, P., Croci, M., Calappi, E., et al. Prone positioning improves pulmonary function in obese patients during general anesthesia. Anesth Analg 1996; 83:578.

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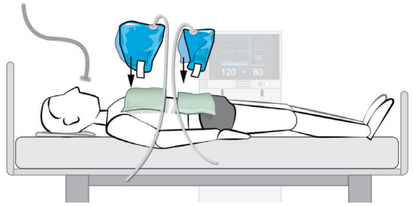
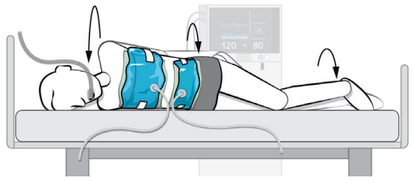
5 steps



STEP 1

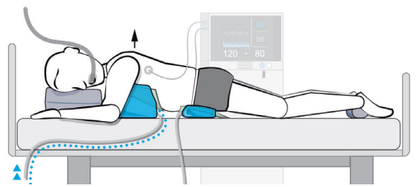
Apply the thoracic and pelvic cover on the patient.

IPV is flat when deflated. Apply the thoracic and pelvic cushion on the correct cover.



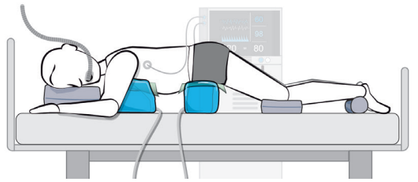
STEP 2

Turn the patient into prone position. The side stripes ensure that the IPV remains correctly positioned when the patient is tilted.



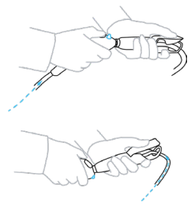
STEP 3

Loosen the side stripes before you inflate the IPV cushions using the Ergotrics Hummingbird. Stop inflation when you hear the whistle and close the pinch clamp.



STEP 4

Check if the IPV cushions and covers are correctly positioned under the patient.



STEP 5

Deflate or inflate the cushions to vary the pressure and height.