

The Benefits of Positive Expiratory Pressure (PEP) Therapy for Respiratory Health.



Positive Expiratory Pressure (PEP) therapy is highly effective in improving lung volume, reducing hyperinflation, and clearing secretions [1]. It is particularly beneficial for pregnant women and both pre- and postoperative patients, enhancing respiratory health and overall well-being. In Sweden, the blow bottle is the preferred PEP device [4].

Pre-Operative Benefits:

PEP therapy is essential for optimising lung function before surgery. It helps reduce postoperative pulmonary complications, potentially leading to shorter hospital stays and fewer instances of fever. By preventing atelectasis (lung collapse) and improving oxygenation, PEP therapy supports smoother surgical procedures and better outcomes [1][2].

Post-Operative Benefits:

After surgery, PEP therapy is crucial for recovery. It helps prevent complications such as pneumonia and atelectasis by improving mucus clearance and lung volumes. This results in faster recovery, shorter hospital stays, and reduced incidence of postoperative pneumonia [3][2]. A study in the Medical Journal of Cairo University found that a bubble PEP device, combined with conventional treatment, enhanced PaO₂ and SAT levels and reduced PaCO₂ in thoracic surgery patients compared to conventional treatment alone [5].

Benefits for Pregnant Women:

During pregnancy, PEP therapy addresses respiratory challenges due to physiological changes. The American College of Obstetricians and Gynecologists highlights the importance of maintaining optimal respiratory function. PEP therapy helps keep airways open, reduces atelectasis risk, and promotes effective mucus clearance [1], countering the restrictive effects of a growing fetus on diaphragm mobility. Additionally, in laparoscopic surgeries, PEP therapy can manage post-operative phrenic nerve pain from CO₂ gas by facilitating deep breathing and alleviating discomfort [5].

Conclusion:

Incorporating PEP therapy into the care regimen for pregnant women and surgical patients offers significant respiratory benefits, leading to better health outcomes and smoother recoveries. PEP devices are affordable, user-friendly, and essential for acute care practices, reflecting a commitment to patient-centred care.

Alora Medical's RespiPEP Devices:

Alora Medical's RespiPEP devices, including the RespiPEP Therafizz (for standard use) and the RespiPEP Theravance (for supine patients), are now available and covered by major medical aids. **For more information, visit Alora Medical at <http://www.aloramed.co.za> or contact info@aloramed.co.za for distribution and sales inquiries.**

RespiPEP™: your sustainable choice for healthier lungs and a cleaner planet.

References:

1. Liverani, Nava, and Polastri, 2019. "An Integrative Review on Positive Expiratory Pressure (PEP) Therapy for Patients with Pulmonary Diseases. Wiley.
2. Zhang, Xiang-yu, Wang, Qixing, Zhang, Shougin, Tan, Weilin, Wang, Zheng, and Li, Jue, 2014. "The Use of a Modified Oscillating Positive Expiratory Pressure Device to Reduce Fever and Length of Hospital Stay in Patients After Thoracic and Upper Abdominal Surgery: A Randomised Trial." *Journal of Physiotherapy*, 61(2015), 16-20.
3. Saliba, Kerrie A., Blackstock, Felicity, McCarren, Bredge, Tang, Clarice Y., 2022. "Effect of Positive Expiratory Pressure Therapy on Lung Volumes and Health Outcomes in Adults With Chest Trauma: A Systematic Review and Meta-Analysis." APTA.
4. Johansson, Sjöholm, Stafberg, and Westerdahl, 2013. Breathing Exercises with Positive Expiratory Pressure after Abdominal Surgery—The Current Physical Therapy Practice in Sweden. Johansson et al., J Anesthe Clinic Res 2013, 4:6.
5. OMNIA, NAGIB, FATMA, GHADA, ABDULLAH, and ISMAIL, 2023. Efficacy of Bubble Positive Expiratory Pressure Device in Post Thoracic Surgery Patients. Med. J. Cairo Univ., Vol. 92, No. 1