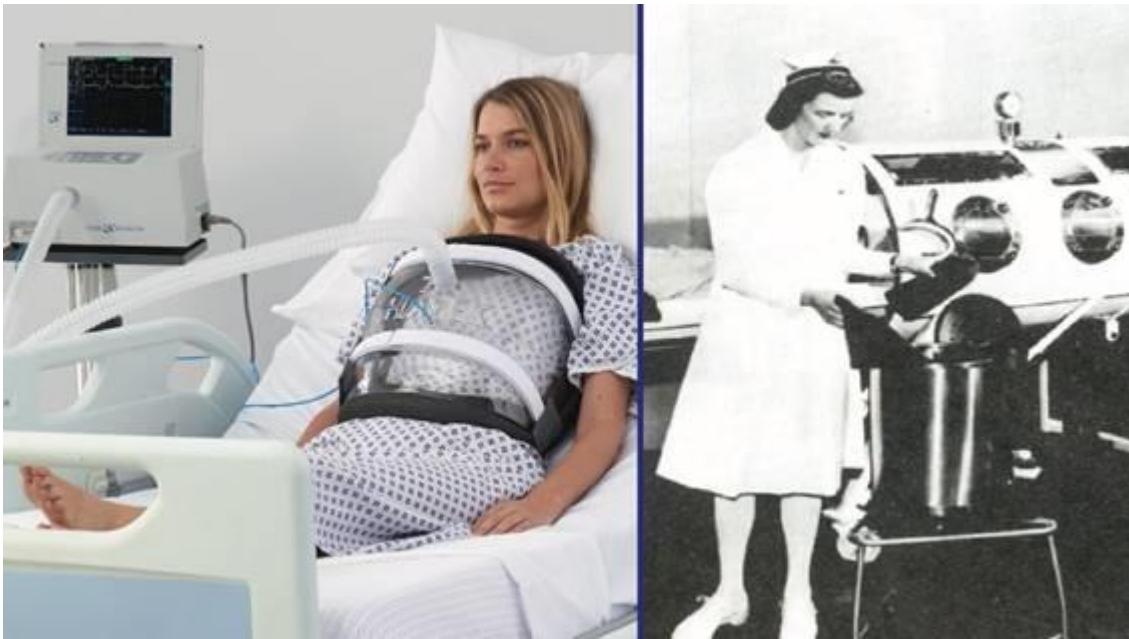


Top 3 Misconceptions About BCV



Misconception #1: This is Old Technology. It seems no different from negative pressure vents of the past.

BCV provides a significant range of benefits for multiple systems including the heart, lungs, and

all biologic functions that are affected by gas exchange. Many of these benefits result from the significant physiologic advantages of lung inflation with a negative pressure gradient. Some of the oldest forms of ventilatory support utilized this type of lung inflation. The Iron Lung type devices used a tank interface and the cuirass ventilators that came later were historical examples of tools that utilized this type of inflation.

BCV, as provided by the Hayek RTX, is not limited to only negative pressure. In the biphasic settings, the RTX also supports exhalation with an active expiratory phase. Early negative pressure devices, as well as modern positive pressure ventilators, fail to provide this critical support to half of the respiratory cycle. This unique component provides better CO₂ clearance, helps manage hyperinflation and expiratory work of breathing. Also, the RTX is a microprocessor-based modern ventilator which advances per computer algorithm gently to the set pressures. The RTX has a digital screen interface with multiple digital and graphic data displayed. The RTX is a modern ICU-to-home microprocessor-based ventilator with capabilities nonexistent on devices from the past or any other presently used. BCV also provides therapy for retained secretions, utilizing Extra-thoracic High-Frequency Chest Wall Oscillation with intra-cuirass pressures up to -50 and +50 at IE ratios of 6:1-1:6.

The technology that has gone into the development of the range of cuirasses and foam seals was not available for historic respiratory support tools. The ability to mold light, flexible, clear cuirass shells couldn't have been manufactured in previous eras. Yes, lung inflation with a negative pressure gradient, used with negative pressure ventilators of the past and all mammalian life forms, has been around a very long time. There are many advantages to this type of support. It is more beneficial than positive pressure alternatives from a physiologic standpoint.

Older technology does not equate to inadequate technology. The RTX takes that superior means of inflation and adds support of exhalation allowing tailoring of each breath to meet the patient's needs. The RTX can provide ventilator support that does not inhibit speaking or oral food and fluid intake.

The physiologic function of the RTX indeed mimics a breath delivery philosophy as ancient as the first life form that drew breath into the lungs. This fantastic tool could only have resulted from applying modern technology. RTX is not at all old technology.

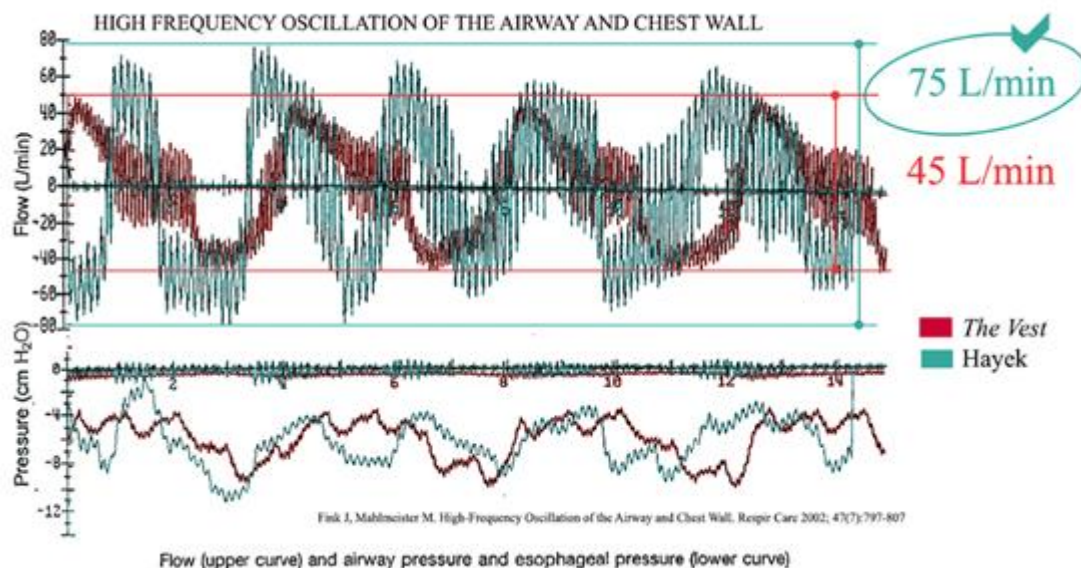
Misconception #2: This device only benefits the neuromuscular patient.

True, the RTX offers many great benefits for the care of NM patients. Still, BCV can also be used in acute and chronic patients in the hospital, intermediate care settings, and at home for many conditions affecting the lungs. The benefits of BCV go far beyond just supporting Neuromuscular based respiratory failure and secretion retention. It can be used in almost any circumstance where PPV would be used. The RTX is a noninvasive ventilator that offers serious clinical advantages to most types of acute and chronic patients needing ventilatory support.

[Learn more about the benefits of BCV here!](#)

Misconception #3: It's just another “vest device”.

Actually, Biphasic Cuirass Ventilation is very different from a High-Frequency compression vest in many ways.



- The RTX can provide true High-Frequency Chest Wall Oscillation (HFCWO) with cough support to clear secretions, but it can also offer direct noninvasive support of ventilation. No vest devices provide these capabilities.

- High-Frequency Chest Wall Compression (HFCWC), as provided by most vest types of devices, cannot match the secretion thinning and mobilizing effect that can be generated by the high-frequency biphasic pressure wave of HFCWO of the RTX.
- Users report greater comfort with BCV.
- Vest type devices provide no support for expectoration. This portion of airway clearance is dependent on the patient's ability to generate an adequate cough flow or support of an additional device and interface. BCV provides direct support of expectoration. It is the ability to support a cough that sets this therapy apart from any other.
- The necessity of a vest to inflate over the chest wall can restrict the chest wall expansion. In contrast, Biphasic Cuirass Ventilation enhances chest wall excursion by employing negative lung inflation.

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