insight
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less pressure, more support
MEDISTORE'S QUARTERLY PRODUCT FOCUS AND PROMOTION

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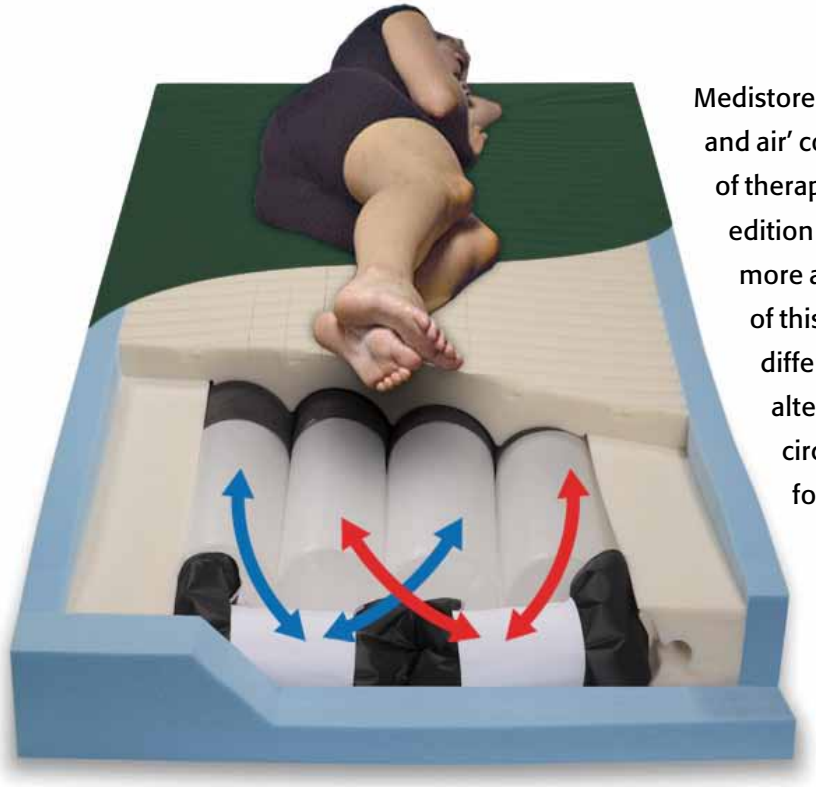
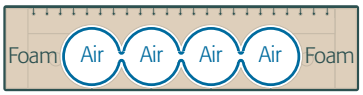


Medistore has recently introduced a 'foam and air' combination mattress to its range of therapeutic pressure surfaces. In this edition of Medistore Insight, we learn more about the features and benefits of this product; understand the differences between static and alternating support; and look at the circumstances for which the foam-air surface is ideally suited.



CROSS SECTION

What is a 'foam-air' combination pressure surface?

As the name suggests a foam-air combination pressure surface consists of a mattress base constructed of foam blocks, with a hollowed out section to allow the insertion of multiple air cells (usually located along the at-risk areas of bony prominences, such as the scapula and sacrum).

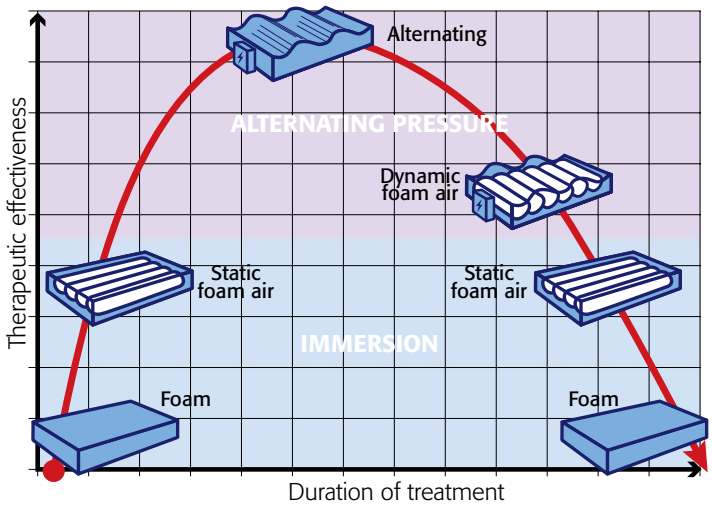
The air cells are interconnected by air tubing, usually in two separate sets, and topped by a layer of foam. The top cover material is the same or similar to that used on other types of alternating pressure surfaces. Some models are equipped with an external powered control unit for alternation or turning function.

When should it be used?

Ideally suited for palliative care or recovering residents, a foam-air pressure surface should be considered as a "step-down" product that bridges between a full alternating pressure mattress and a static mattress.

It should not be used by residents with an increasing risk of pressure injury, however can be used as a 'step up' from a static pressure surface.

Therapeutic Effectiveness



article continued inside

insight

What is a 'foam-air' combination pressure surface? *continued*

Static versus alternating surfaces

A number of different types of support surfaces are available and no single support surface has been shown to consistently perform better than all others under all circumstances. The type of support surface best for each individual will depend on a number of factors such as general health, ability to change positions, body mass as well as the condition, quality and location of any existing pressure injuries.

Support surfaces can be categorised according to whether the support is 'static' or 'alternating' (sometimes referred to as 'dynamic').

Static devices reduce pressure by immersion – by spreading the weight of the body over a larger area. Static devices mold to the contours of the body and maintain a constant level of immersion.

Alternating devices usually use electricity or a battery pack to alter the level of pressure (through inflation and deflation of air or movement of fluid) in the different chambers within the support device. The intent of this type of product is to provide pressure relief at various points of skin contact, in order to promote reactive hyperaemia - preventing pressure injuries by enabling blood perfusion.

Static surfaces

Static surfaces offer pressure reduction via immersion. The performance of a static mattress is judged by its ability to immerse the patient over the surface, this can be measured by comparing the total surface area of contact between mattresses, and the average interface pressure over the area.

A good static mattress allows the user to exert his/her weight over a greater surface area, thereby reducing the average pressure acting on the at-risk bony prominences. A multi-layered foam mattress with memory foam topper is generally effective, however a well-designed static foam-air mattress is able to react to movement and changes in sleeping position via the redistribution of air between cells.

With any static surface however, once the patient has settled on the mattress, constant interface pressure is still exerted on the skin and the bony prominences, until he/she changes position or is repositioned by a carer. For residents with poor skin integrity and poor mobility, this may still pose a risk of pressure injury, unless their condition is closely monitored, and the use of an alternating pressure surface may be considered.

Alternating surfaces

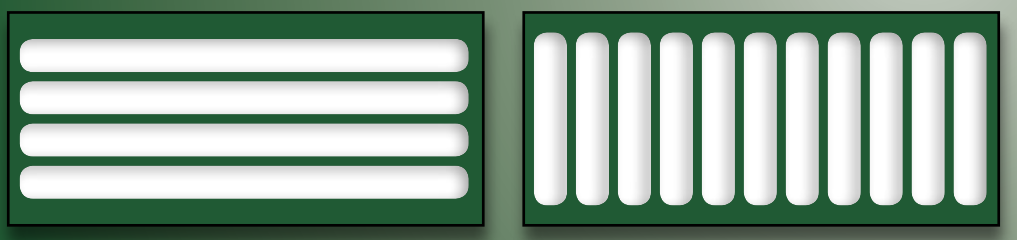
Alternating surfaces offer pressure relief due to alternating pressure – the ability to allow periods of zero interface pressure on the skin to promote reactive hyperaemia, by cyclically alternating the areas of contact and support. The performance of an alternating mattress is judged by the duration of zero interface pressure in a cycle, and how quickly a cell can "pull away" from the body during alternation.

A dynamic, alternating pressure mattress (APM) remains the most effective pressure relieving surface for the treatment and prevention of pressure injuries, due to its ability to achieve zero interface pressure and promoting reactive hyperaemia. This is particularly important for residents with poor skin integrity and/or residents who are immobile and infrequently repositioned. No static mattress, be it foam, air, or a combination of foam and air, can consistently achieve periods of low (under 10mmHg) to zero interface pressure.

However, despite being the more therapeutically effective option, there are circumstances, conditions and environments in which some users may find an APM less ideal, including:

- residents who are adversely effected by the noise and motion of some APMs
- reliance on electricity may be an issue for regions which experience frequent power outages
- residents who constantly self adjust pressure settings; remove power cords; or generally dislike APM's
- palliative care residents who require comfort and quiet (not suitable for all)

Longitudinal versus lateral air cells



LONGITUDINAL LATERAL

Lateral cells pose a greater risk of bottoming out, especially when profiled into the Fowler position, as the air is not pressurised like an APM.

Once the air has been displaced from one cell to the others, the cell does not return to its original shape as easily and will not provide support until additional weight is removed.

Due to the much larger longitudinal cells of the PressureGuard CFT, only a portion of the air cells at the sacral area is compressed, leaving sufficient air pressure within the cells to prevent bottoming out.

Longitudinal cells also cover a larger area of the mattress, compared to other products, and better immersion can be achieved over a greater surface area of the body.

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Introducing the PressureGuard CFT® from Span America

The PressureGuard CFT is a non-powered dynamic air/foam mattress system that delivers customised pressure reduction, while providing the patient with a stable surface to maximise functional ability and maintain safe positions.

It uses exclusive Constant Force Technology™ to automatically adjust the mattress's network of interconnected air cylinders and elasticised reservoirs to optimal levels of pressure relief for each patient, regardless of their weight or position on the surface.

Provides a cost effective pressure injury prevention alternative when resources limit care options. The system requires minimal setup and maintenance, and no programming. It generates no noise or heat and uses no electricity, making it immune to power interruptions.

Ideal for the majority of palliative care situations, the PressureGuard CFT is suited for residents at risk of developing pressure injuries, provided that the patient regularly repositions themselves, or is regularly repositioned by a carer, and the skin condition is monitored (moisture, integrity, nutrition).

FEATURE	BENEFIT FOR THE PATIENT
Constant Force Technology™ (CFT) 	The patented CFT system has dual elasticised reservoirs connected to its two cell sets, which will react immediately to changes in patient weight distribution and repositioning, keeping pressures evenly distributed throughout mattress. Other static foam-air mattresses lack this feature and are slower to react, particularly during and after profiling Further info: www.spanamerica.com/cft
Geo-Matt™ 	Clinically proven Geo-Matt™ design creates a unique anti-shearing top surface. 800 individually-responsive blocks in distinct head, torso, and foot zones enhance therapeutic support and comfort. The blocks move in concert with the body to reduce the effects of injury-causing shear on the skin Further info: www.spanamerica.com/science_behind_geo_matt & www.youtube.com/watch?v=f1iznq6uREg
Heel slope 	The foot end of the mattress is tapered down towards the edge to better accommodate the contours of the heels/ankles, redistributes load to pressure-tolerant lower legs and calves. Reduces heel pressures while providing complete foot support Further info: www.spanamerica.com/science_behind_safety_edge & www.youtube.com/watch?v=AQy3ZHdaX9M
Safety Edge 	Firmer perimeter bolsters gently prompt patient toward centre of bed to help prevent the patient from rolling off the edge of the mattress Facilitates safer transfers and stable edge-of-bed sitting Shaped, slotted inner bolsters and topper's underside arches work in concert to cradle and surround air cylinders. Interlocking, integrated design provides flexible, progressive support and maximises structural integrity Further info: www.spanamerica.com/science_behind_heel_slope

FEATURE	BENEFIT FOR THE CARER
Minimal setup required	The CFT is ready for use once unpacked and pressure-adjusted to suit local altitude conditions via an automatic valve (supplied)
Simple to use and maintain	No servicing required apart from regular cleaning and hospital grade disinfection, and periodical checking of air pressure by sight and feel. Should the air pressure in the cells require adjustment, a simple-to-use kit is available (see below)
Air renewal kit	Should pressure adjustment be required, the CFT mattress features two inflation ports at the foot end, for use with an air renewal kit consisting of a hand pump and two adjustment valves is available as an option to help extend the usable life of the product Many static foam-air products do not allow the air cells to be serviced, once the air cells have deflated after the warranty period has expired, they may be unable to provide sufficient pressure relief and support
Designed, developed and made in the USA	Span America is a reputable US-based manufacturer of pressure management and patient positioning products, with over 30 years of experience in the design, development and manufacture of a comprehensive line of innovative specialty foam surfaces. The CFT is widely-used in medical facilities in the USA

a lightweight special

To promote the launch of the PressureGuard CFT from Span America, Medistore is offering a promotional price on our new non-powered foam-air pressure surface.

Ideal for palliative care residents who require comfort and quiet or for the noise and motion sensitive resident, this product offers a great alternative to help prevent pressure injury.

PressureGuard CFT® Single Pressure Surface
8080-29

$2,550 *(RRP $2,700)*

- proven for both pressure injury healing and prevention
- minimal setup required
- easy to maintain
- no reliance on power source
- no noise, heat or movement generated
- comfortable and quiet

Unlimited offer while available stocks last Standard payment terms and freight charges apply. Please contact Medistore for a custom freight quote

medistore

pressure care and manual handling specialists

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