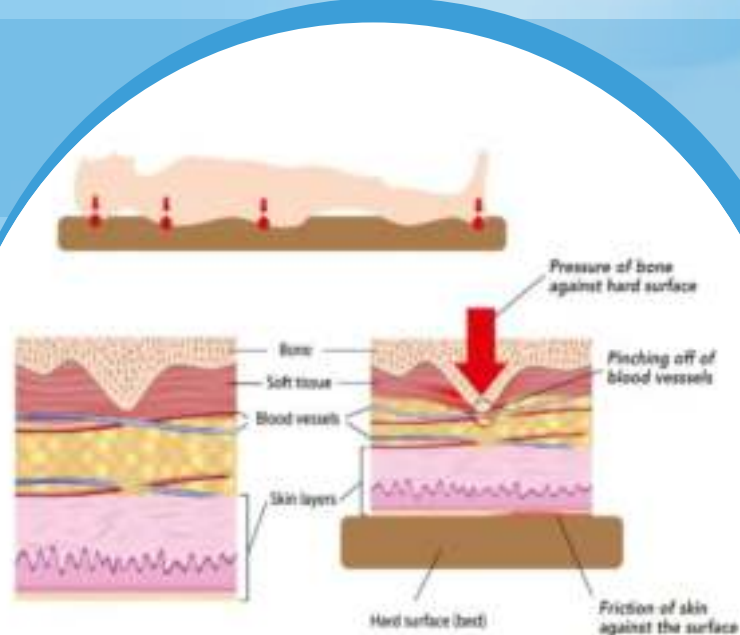




AKTC Alternating Pressure Air Mattress

What are Pressure Ulcers or Bed Sores?

Even though it is the largest organ of the human body, the skin does not receive as much attention as the other organs. This “negligence” can have severe impact on a critically ill patients admitted to the ICU. Patients bedridden for a long time face the risk of developing pressure ulcers on their skin.



- When skin is in direct contact with the mattress for longer periods of time, pressure ulcers occur due to tissue ischemia (reduced blood flow) in the skin.
- It usually occurs on bony prominences due to the pressure of the bone against the hard surface.
- Blood vessels get compressed and prevents oxygen and other nutrients from reaching the skin cells.
- This leads to skin breakdown which further leads to ulcer formation.

Why is an Alternating Pressure Air Mattress (APAM) better?

- Unlike the standard Constant Low Pressure-CLP mattresses (foam mattress, gel-filled, water filled, etc.) that remain static, APAMs have internal air cells that inflate and deflate in an alternating fashion. This ensures that no body part of the patient is in constant contact with the mattress continuously.
- The continuous motion prevents direct pressure on the body which avoids the blockage of blood vessels to the skin.
- The alternating function also ensures aeration and makes sure that the skin cells receive enough oxygen to avoid pressure ulcers.
- Numerous studies have shown that APAMs are more effective than CLP mattresses. The results showed that CLP mattresses had a 33.9 % incidence of pressure ulcers whereas APAMs had an incidence rate of only 13%. [6]
- Another comparison study showed that the incidence rate for a standard foam mattress was 13.5% whereas APAMS had an incidence rate of 5.9%. [6]
- APAMs have a delayed formation of pressure ulcers which results in reduced hospital stay when used, as compared to CLPs.

Fig (a): Patient on a standard bubble mattress

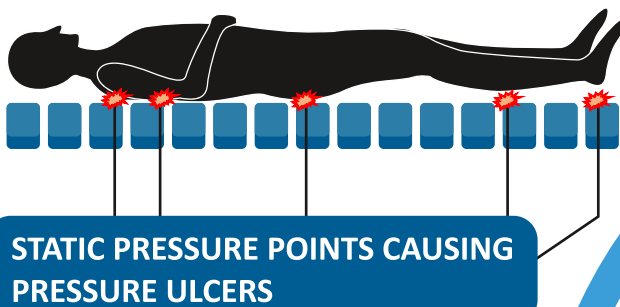
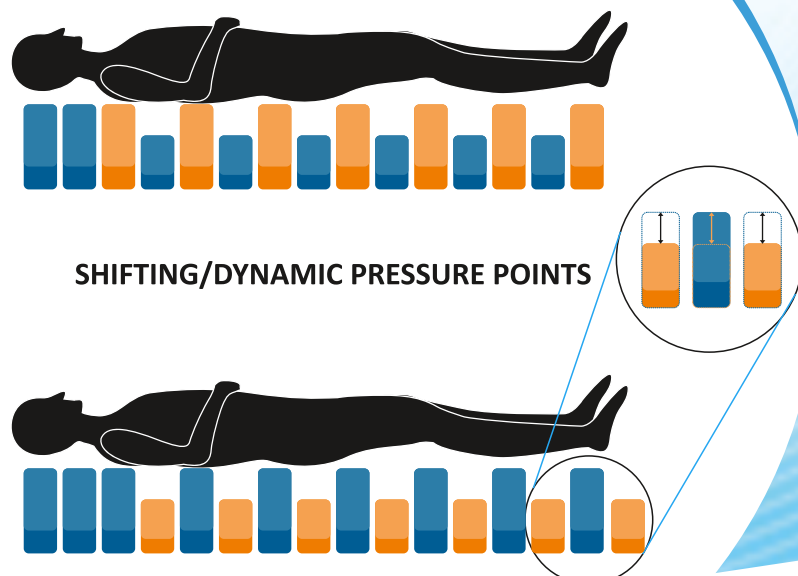


Fig (b): Patient on an Alternating Pressure Air Mattress



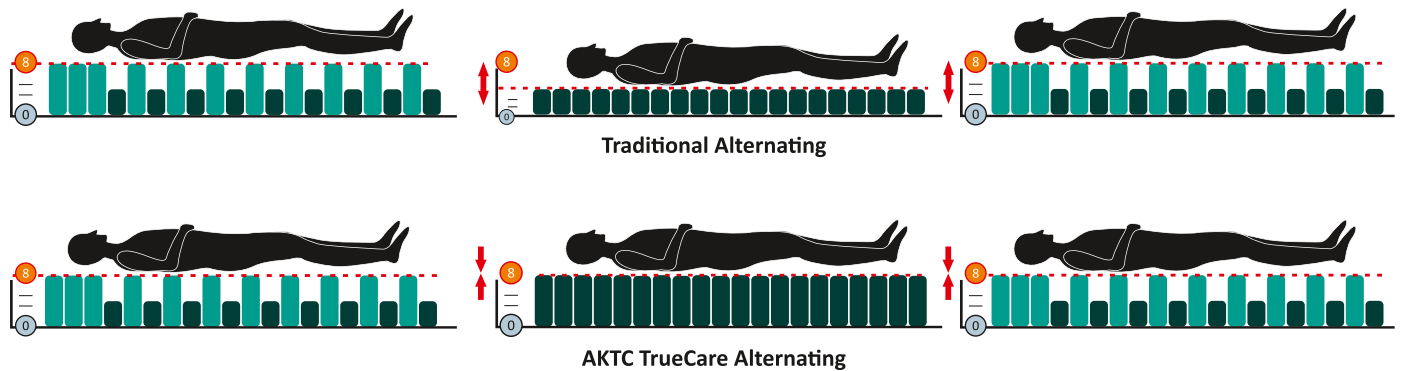
AKTC Air Mattress System

The AKTC Air mattress system is an Alternating Pressure Air Mattress used in the prevention and cure of pressure ulcers. The AKTC mattresses offer patients a comfortable and relaxing support surface by using the established principles of alternating therapy, which can both prevent skin breakdown and enhance healing.

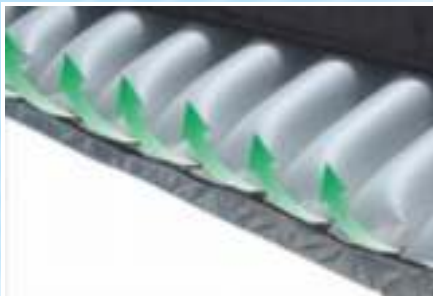
Special Features:

AKTC TrueCare Alternating:

TrueCare Alternating is a patented technology that keeps the patient at the same height on the mattress throughout the alternating cycle. It ensures that one set of cells remain inflated at a constant point while the next set of cells deflate and inflate, hence keeping the patient at the same height. This avoids unpleasant upward-downward movement of the patient which in turn enhances comfort.



iLAL(Independent Low Air Loss):



iLAL technology effectively reduces moisture and skin heat on the support surface by providing a stream of air flow known as low air loss. Low air loss is ventilated through 1.5mm diameter holes (2 rows of 15 cells each) located on the manifold underneath the air cells.

Air Pump:



Our Offerings



**AKTC 5 Inch Accu Savvy
Mattress Overlay System**



**AKTC 8 Inch Optimal Dual
Mattress Replacement System**

Product Specifications:	AKTC 5 Inch Accu Savvy Mattress Overlay System	AKTC 8 Inch Optimal Dual Mattress Replacement System
Mattress Dimensions (cm)	200 (L) x 85 (W) x 12.7 (H)	200 (L) x 90 (W) x 20 (H)
Mattress Weight	5.8 Kg	8 Kg
Cover Material	Nylon- PU	Nylon- PU
No. of Air Cells	16 Cells	18 Cells
Max Weight bearing capacity	135 Kg	255 Kg
Pump Dimensions (cm)	33 (W) x 24 (D) x 13 (H)	42 (W) x 23 (D) x 13 (H)
Pump Weight	3.5 Kg	4.6 Kg
Pump Output	8L per minute	9L + 9L per minute

References:

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3. Effectiveness of an alternating pressure air mattress for the prevention of pressure ulcers: Katrien Vanderwee, Maria H. F. Grypdonck, Tom Defloor.
4. Testing The Effectiveness Of Pressure Mattresses For People Over 65 Years Residing In The Community: A Phd Research Proposal And Protocol: Katherine Rae
5. Incidence and risk factors associated with the development of pressure ulcers in an intensive care unit: González-Méndez, Lima-Serrano, Martín-Castaño, Alonso-Araujo, Lima-Rodríguez
6. The Prevention and Management of Pressure Ulcers in Primary and Secondary Care: NICE Clinical Guidelines, No. 179



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