



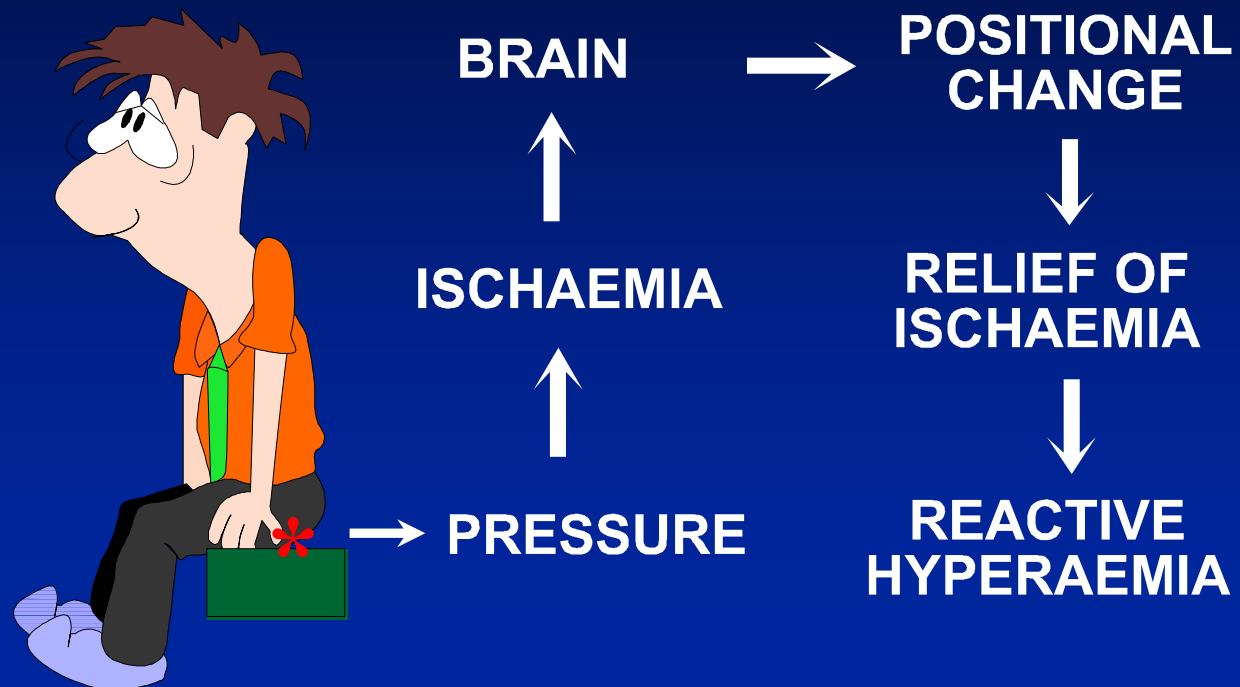
# Pegasus

HEALTHCARE

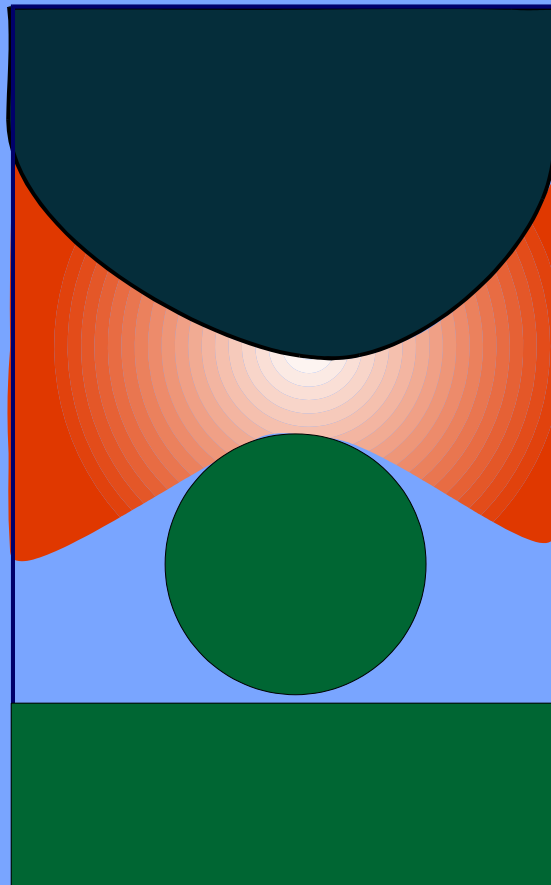
## *Introduction to Support Surfaces*

*Presented by Tony Warr*

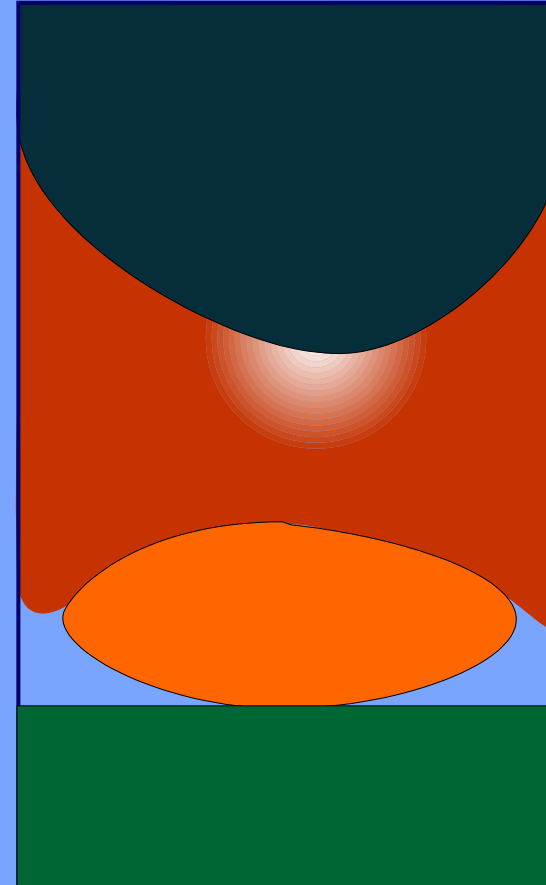
# Normal Body Reaction to the Effects of Gravity



**Apply Pressure**



**Offload Pressure**



Under pressure Tissue becomes ischaemic  
Relieve the pressure - blood flows

# BLANCHING

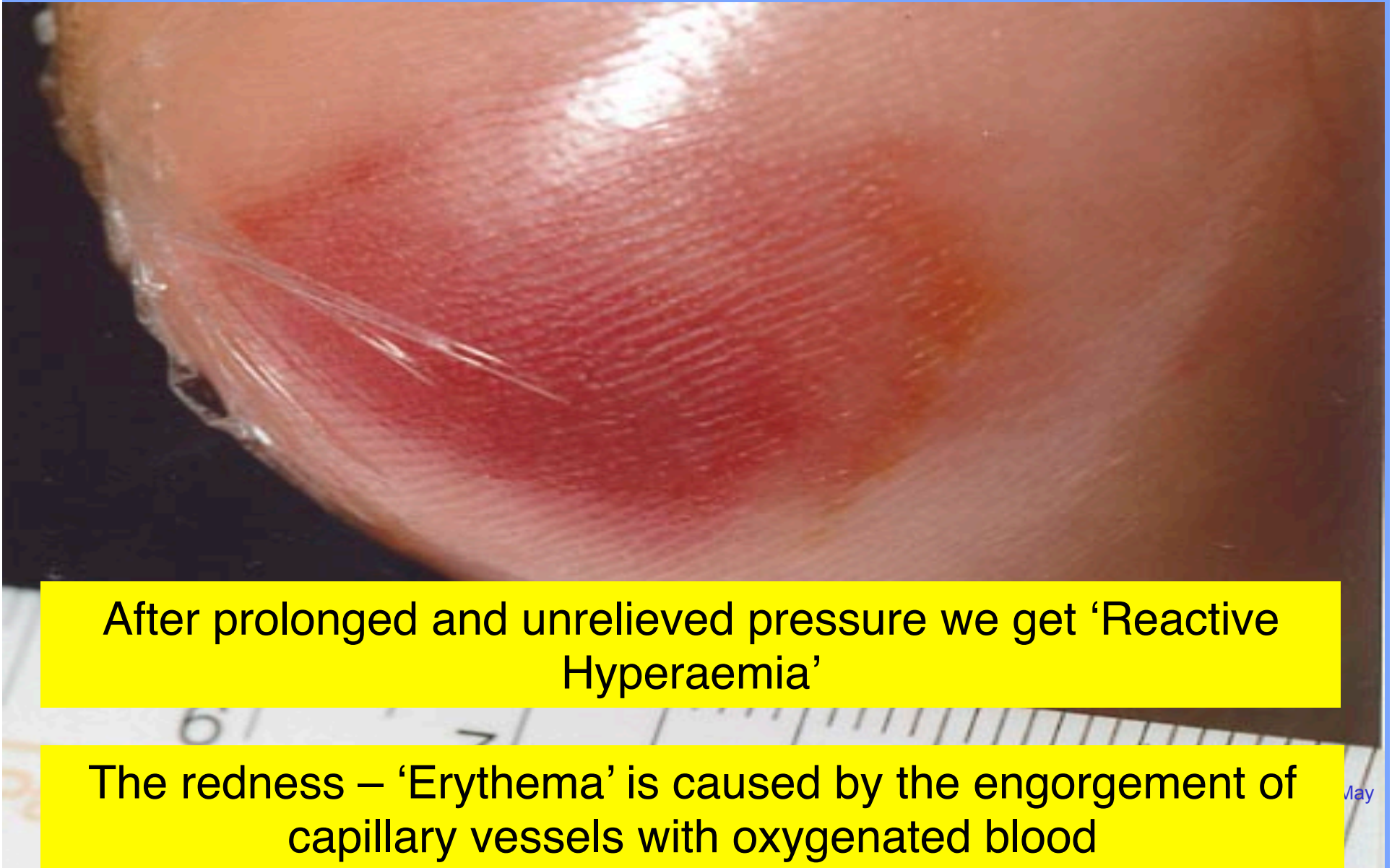
■  
■  
Skin whitens under compression due to local occlusion or vasoconstriction of the blood supply.





# Reactive Hyperaemia.





After prolonged and unrelieved pressure we get 'Reactive Hyperaemia'

The redness – 'Erythema' is caused by the engorgement of capillary vessels with oxygenated blood

# Blanching Erythema?

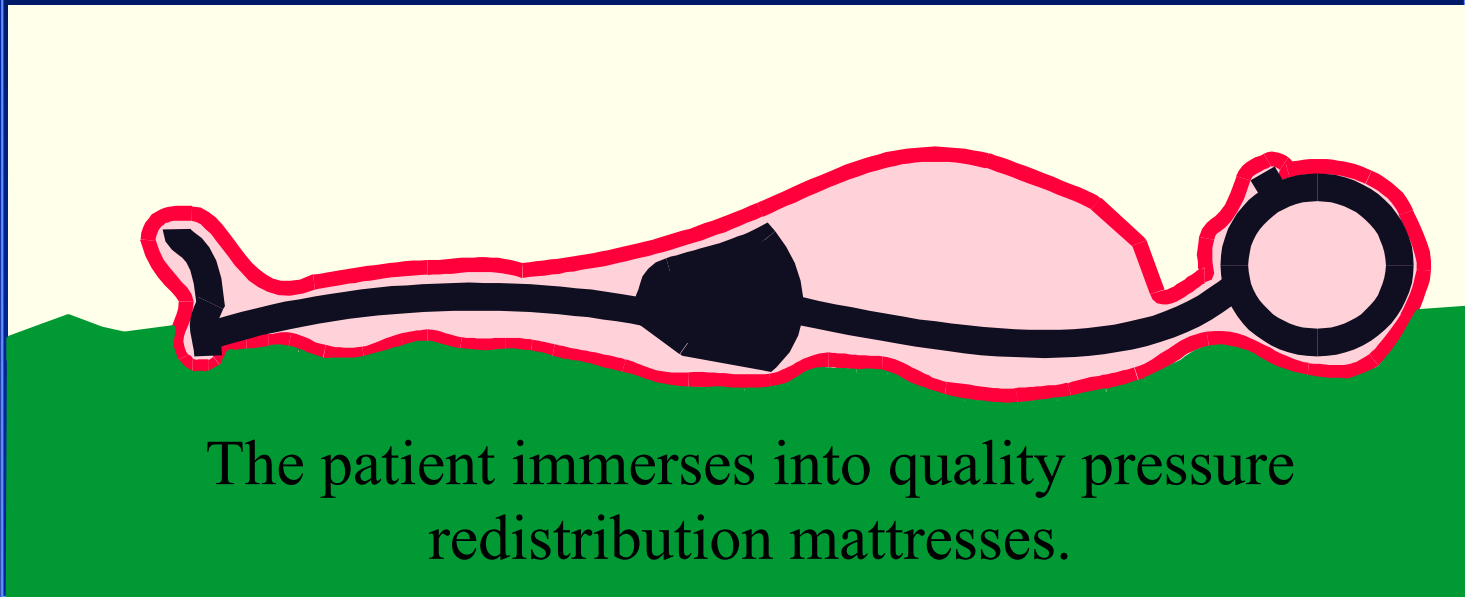


Intact microcirculation is indicated when reddened skin – ‘Erythema’ - blanches or whitens, after light finger pressure is applied.

# **Mode of Action of Pressure Relieving Devices**

- **CONSTANT LOW PRESSURE**

# Constant low pressure



The patient immerses into quality pressure redistribution mattresses.

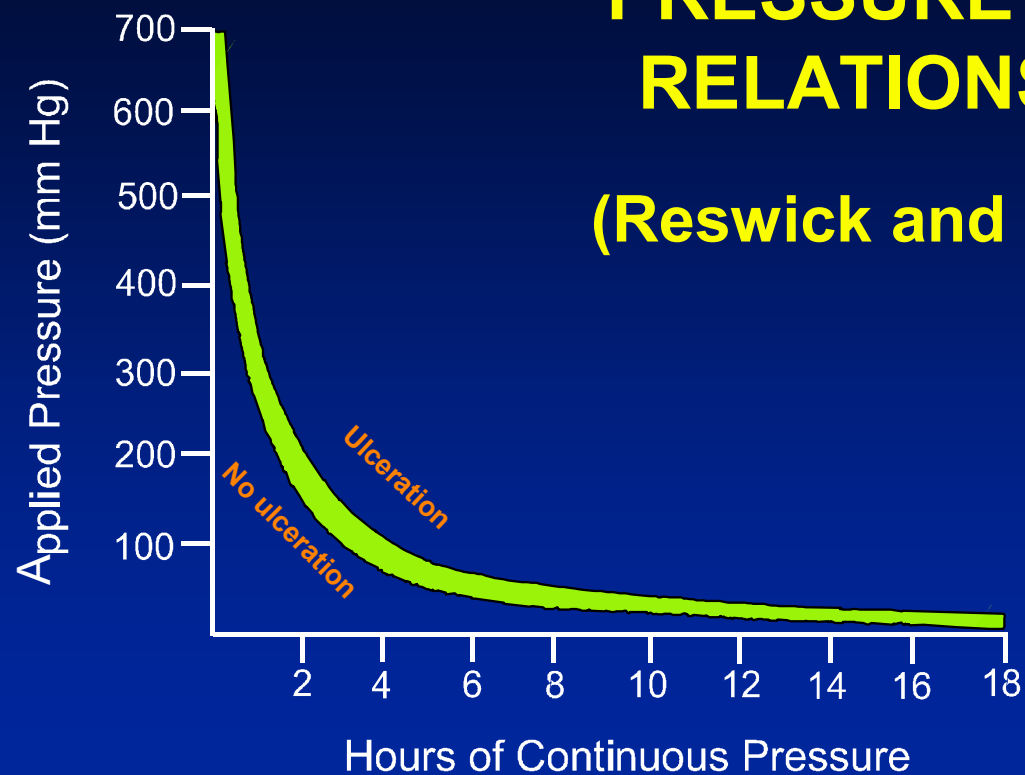
# Constant Low Pressure

- High specification foams.
- Stretch Cover
- Multi Layers of different density Foams





## PRESSURE TIME RELATIONSHIP (Reswick and Rogers)





# **Mode of Action of Pressure Relieving Devices**

- **CONSTANT LOW PRESSURE**
- **PRESSURE VARIATION**



# 2 Cell Cycle Range

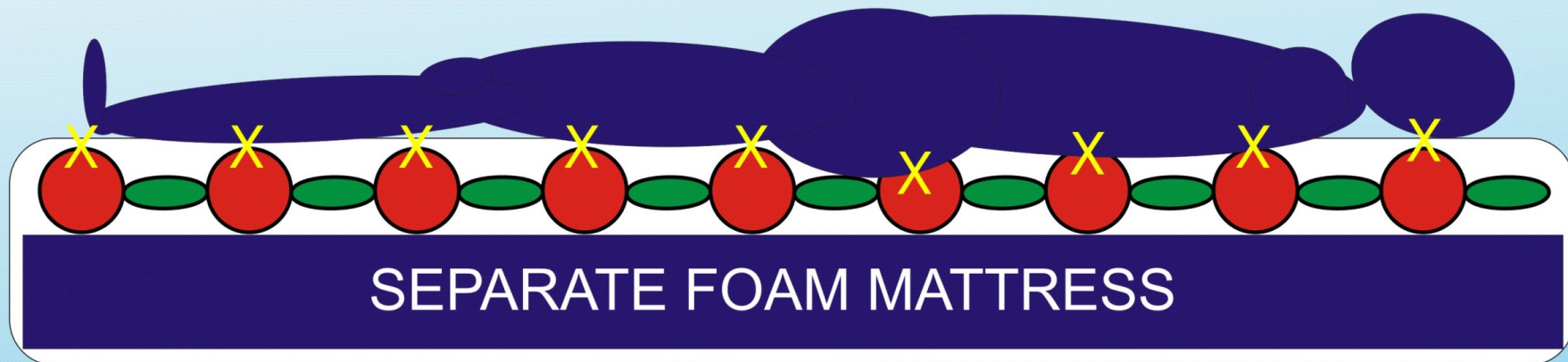
<p><b>High Risk</b></p> <p><b>Limited Mobility</b></p> <p><b>Score Guide</b> Braden 13 to 14</p> <p>Optional chair cushion available with this mattress</p>	<p><b>BI-WAVE</b></p>  <p><b>ND2 Airstream</b></p> <p><b>FULL MATTRESS REPLACEMENT</b> 2 cell cycle</p> <ul style="list-style-type: none"> <li>Existing stage 2 or 3 pressure injury</li> <li>When patient is required to be nursed upright most of the time</li> <li><b>ND2</b> Step down setting for Pt. &lt;45Kg</li> <li><b>ND2</b> Timed Static Mode</li> </ul>	<p><b>Approximately 6 hourly*</b></p> <p>Upper Weight Limit 220kg</p>
<p><b>Moderate Risk</b></p> <p><b>Some Mobility</b></p> <p><b>Score Guide</b> Braden 15 to 17 Pt. &gt; 75yrs old 15 to 18</p> <p>Optional chair cushion available with this mattress</p>	<p><b>VIACLIN</b></p>  <p><b>NDA Airstream</b></p> <p><b>MATTRESS OVERLAY</b> 2 cell cycle</p> <ul style="list-style-type: none"> <li>Existing superficial pressure injury eg. up to stage 2</li> <li>Weight less than 100 kgs (&gt;100 kgs consider Bi-Wave)</li> <li><b>NDA</b> Step down setting for Pt. &lt;45Kg</li> <li><b>NDA</b> Timed Static mode</li> </ul>	<p><b>Approximately 4 hourly during the day. Patient should tolerate 8 hours uninterrupted rest overnight if skin is intact*</b></p> <p>Upper Weight Limit 168kg</p>



## Pegasus NoDec A Airstream - 2 Cell Cycle Dynamic Overlay



# Diagrammatic Side View 2 Cell Cycle Alternating Pressure Air Overlay



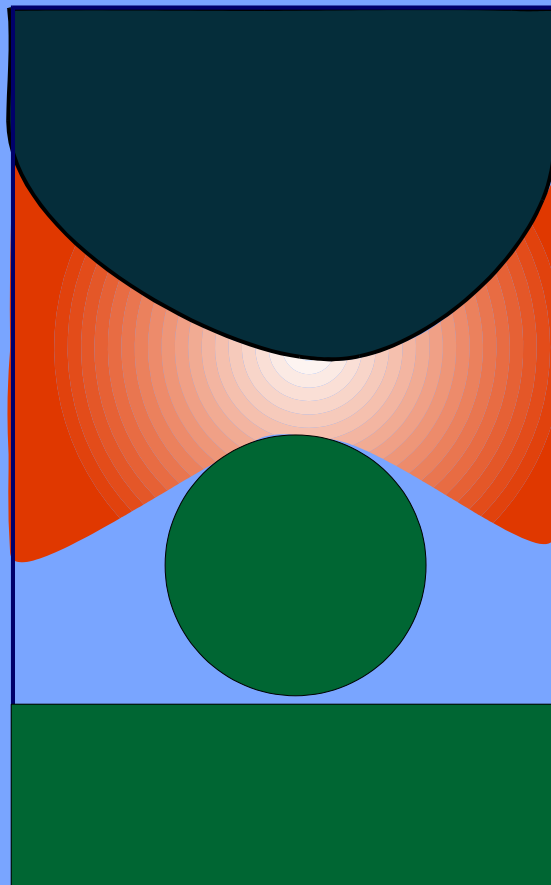
Pegasus Viacilin - Pegasus NoDec A Airstream

Red = Inflated cells  
Green = deflated cells  
Orange = static cells

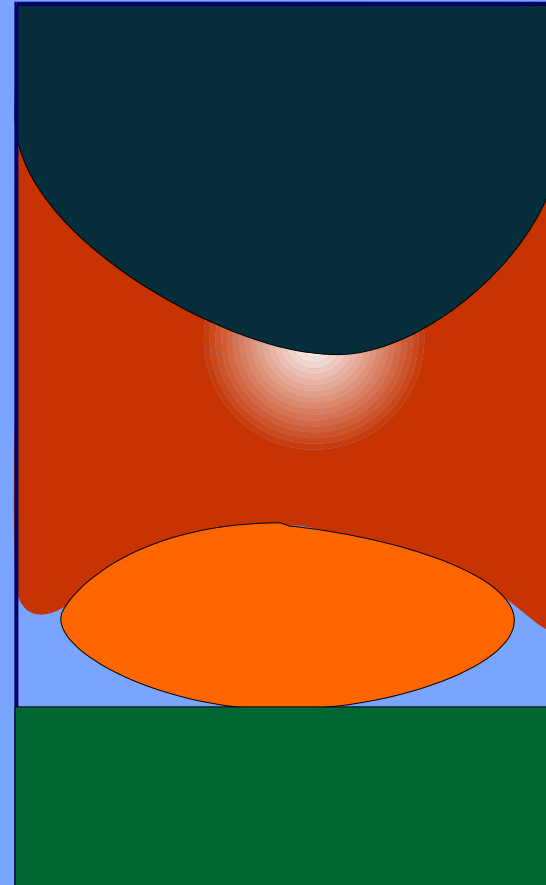


# 2 cell cycle APAM

**Maximal  
inflation**



**Minimal  
inflation**







Inside look at a Pegasus Overlay

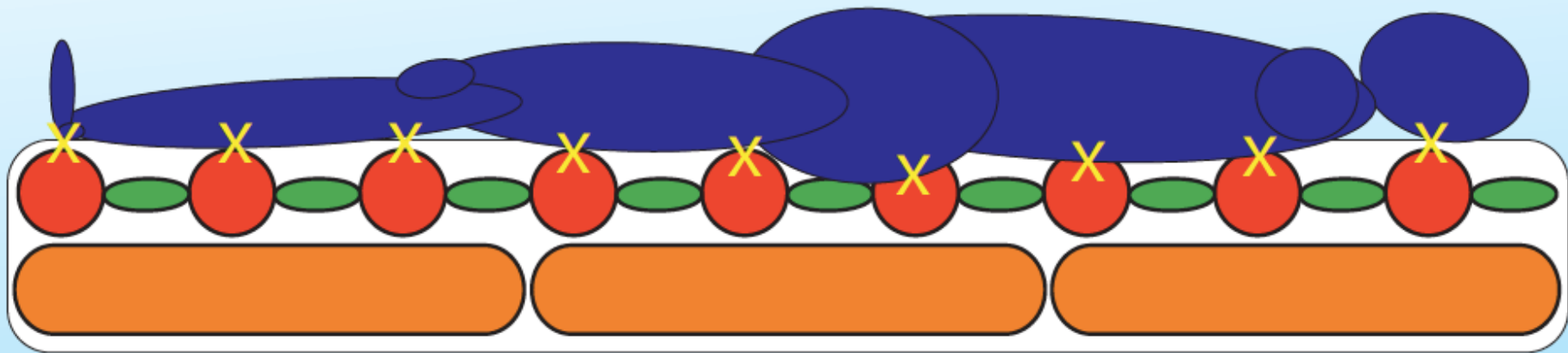
# Installation Story

# Airstream 2





# Diagrammatic Side View 2 Cell Cycle Alternating Pressure Air Mattress



## Pegasus BiWave - Airstream 2

Red = Inflated cells  
Green = Deflated cells  
Orange = Static cells





# Airstream 2

- High risk with existing PIs. up to G3
- 10 minute cycle
- Better Manage PTs. >100Kg
- Pts. who need to sit up in bed
- Static Mode
  - Treatment
  - Repositioning
  - Auto revert to Alternating mode after 30 minutes
- Step down Comfort mode for Under weigh PT's <45kg



Airstream 2 - 2 Cell Cycle - Full Mattress Replacement



Inside look at a Pegasus 2 Cell Cycle FMR





# Installation Story

## Bed mattress must be removed when using full mattress replacement (safety issues/cot sides)

No mattress system replaces PAC and nursing care – they are an adjunct strategy only

Staff can and should change the setting if the patient is underweight/frail

Full patient skin assessment and Braden Risk score is required

Guideline based on Braden, but prescribing a mattress overlay is often ok

NUM, ANUM, senior staff place the order

Bed mattress must be removed when using full mattress replacement (safety issues/cot sides)

MUST put mattress into static mode for patient repositioning, mobilising and transferring from bed to trolley/another bed

Please revisit the securing of power cords as many are getting damaged!



When head of bed attached, must remember that the mattress is attached to whole bed – and rips 2 holes in the mattress!!

Brief overview of the products themselves and how they work

# **Mode of Action of Pressure Relieving Devices**

- **CONSTANT LOW PRESSURE**
- **PRESSURE VARIATION**
- **PRESSURE ELIMINATION**

# Pegasus 3 Cell Cycle Range

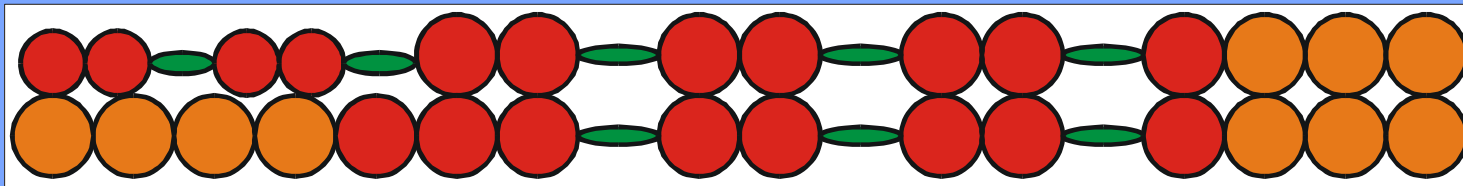
PATIENT RISK CATEGORY	DEGREE OF BED MOBILITY	RECOMMENDED AIR MATTRESS		RECOMMENDED REPOSITIONING
<p><b>Very High Risk</b></p> <p>Score Guide Braden ≤10</p> <p>No chair cushion available with this mattress</p>	<p><b>Completely Immobile</b></p>	<p><b>CAIRWAVE</b></p>  <p><b>ND3 Airstream</b></p>	<p><b>FULL MATTRESS REPLACEMENT</b> <i>High efficiency 3 cell cycle</i></p> <p>Support surface of choice where repositioning is difficult, dangerous or otherwise inappropriate, eg.</p> <ul style="list-style-type: none"> <li>critically ill;</li> <li>morbid obesity; or</li> <li>in the presence of a significant stage 3 or 4 pressure injury</li> </ul>	<p><b>No repositioning required for pressure relief*</b></p> <p><small>(Royal College of Nursing; Nursing update 7:39 1993)</small></p> <p><b>Therapeutic Upper Weight Limit 287kg</b></p>
<p><b>High to Very High Risk</b></p> <p>Score Guide Braden 11 to 12</p> <p>Optional chair cushion available with this mattress</p>	<p><b>Very Limited Mobility</b></p>	<p><b>TRINOVA</b></p> 	<p><b>FULL MATTRESS REPLACEMENT</b> <i>High efficiency 3 cell cycle</i></p> <ul style="list-style-type: none"> <li>Designed for heel &amp; sacral pressure areas</li> <li>Existing stage 3 or 4 pressure injury</li> <li>When a high to very high risk patient is required to sit out of bed</li> </ul>	<p><b>Approximately 6-8 hourly*</b></p> <p><b>Upper Weight Limit 260kg</b></p>





# Diagrammatic side view 3 cell cycle Mattress

## THREE CELL PROFILES



## PEGASUS TRINOVA

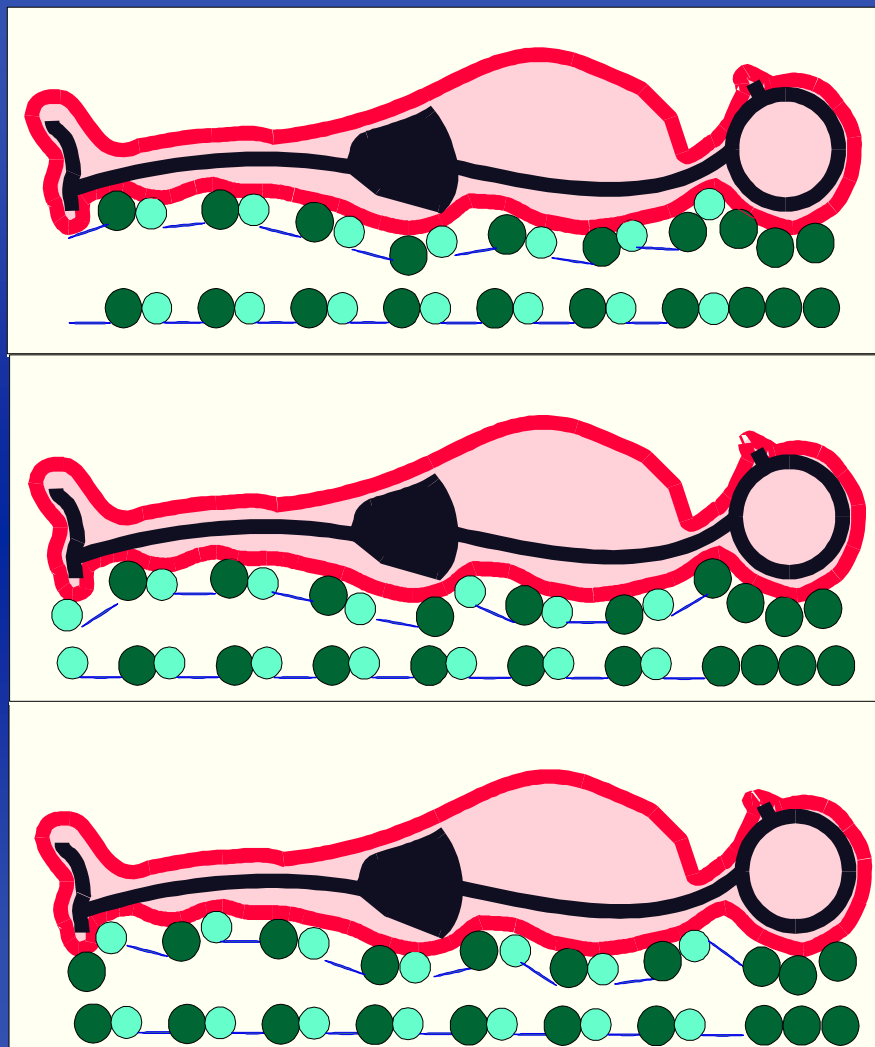
Red = Inflated cells  
Green = deflated cells  
Orange = static cells



**PEGASUS**  
HEALTHCARE

*Dynamic Surfaces*



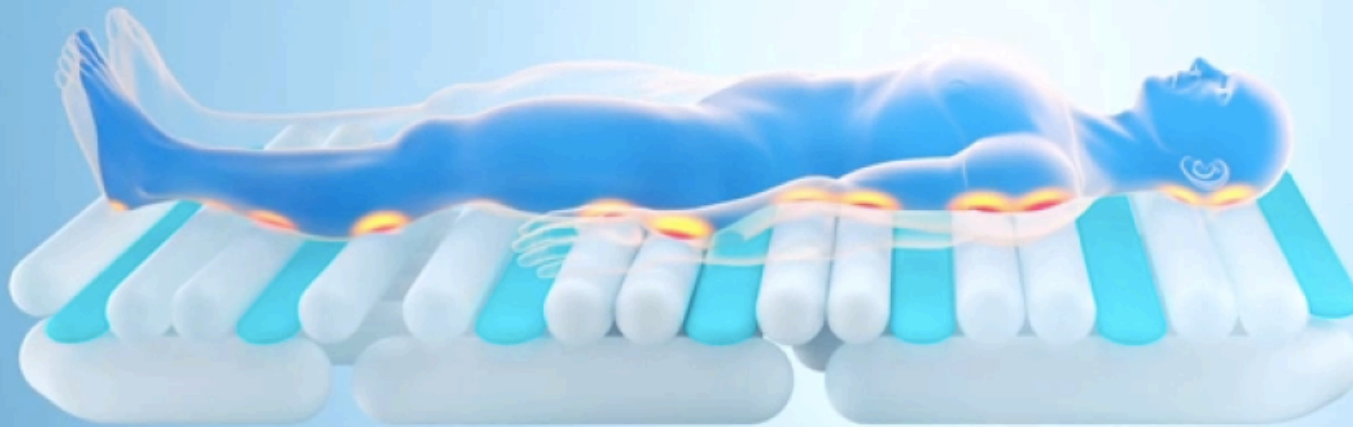


# Pressure elimination

3 cell cycle  
APAM

Trinova  
Cairwave

# Cairwave – Airstream 3 - Trinova



**Effective,  
proven prevention  
& therapy**

- Real zero pressure
- 3 cell system
- 7,5 minute cycle



**01:58**

- Vacuum assist  
deflation\*

\*Airstream 3 & Cairwave models only



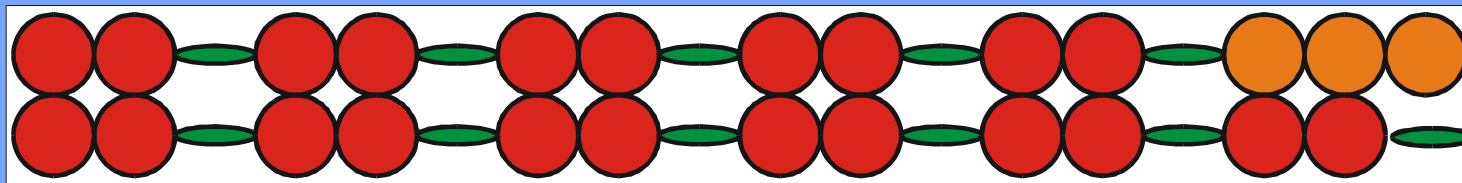
Pegasus Cairwave - 3 Cell Cycle Full Mattress Replacement.



## Pegasus AirStream - 3 Cell Cycle Full Mattress Replacement.

# Diagrammatic side view 3 cell cycle Mattress

## THREE CELL PROFILES



## PEGASUS CAIRWAVE

Red = Inflated cells  
Green = deflated cells  
Orange = static cells



**PEGASUS**  
HEALTHCARE

*Dynamic Surfaces*

# 3 cell-cycle, high output mattress







# Issues to consider when prescribing an APAM





- Degree of bed mobility.
- Weight of patient.
- Sensation
- Location of Pressure Ulcer.
- Stage of Pressure Injury.
- Evaluation of risk assessment score
- Continuous Evaluation of Erythema.
- Previous History
- Skin integrity
- Moisture (Continence, pads, Kylies and catheters)
- Drugs
- Poor peripheral circulation.
- Respiration



# Issues to consider when prescribing an APAM

- Degree of bed mobility in & out of bed
- Weight of patient.
- Sensation cognition
- Neurological cognition
- Continence (moisture, pads, Kylies and catheters)
- Stage & Grade of any Pressure Injury.
- Evaluate the risk assessment score
- Clinical Judgment
- Number, severity and location of any existing pressure injuries
- Previous History of PI. & risk of development of new PIs
- Age & Skin integrity
- Drugs
- Poor peripheral circulation.
- Respiration
- Cardiac
- Continuous Skin Checks & Evaluation of Erythema.

# **Pegasus** *Equipment Selection Guide*

PATIENT RISK CATEGORY	DEGREE OF BED MOBILITY	RECOMMENDED AIR MATTRESS		RECOMMENDED REPOSITIONING
<b>Very High Risk</b>  <div>Score Guide Braden &lt;=10</div> <div>No chair cushion available with this mattress</div>	<b>Completely Immobile</b>	<b>CAIRWAVE</b>  <b>ND3 Airstream</b>	<b>FULL MATTRESS REPLACEMENT</b> <i>High efficiency 3 cell cycle</i> Support surface of choice where repositioning is difficult, dangerous or otherwise inappropriate, eg. <ul style="list-style-type: none"> <li>critically ill;</li> <li>morbid obesity; or</li> <li>in the presence of a significant stage 3 or 4 pressure injury</li> </ul>	<b>No repositioning required for pressure relief*</b>  <small>(Royal College of Nursing; Nursing update 7/99 1993)</small>  <b>Therapeutic Upper Weight Limit 287kg</b>
<b>High to Very High Risk</b>  <div>Score Guide Braden 11 to 12</div> <div>Optional chair cushion available with this mattress</div>	<b>Very Limited Mobility</b>	<b>TRINOVA</b>  	<b>FULL MATTRESS REPLACEMENT</b> <i>High efficiency 3 cell cycle</i> <ul style="list-style-type: none"> <li>Designed for heel &amp; sacral pressure areas</li> <li>Existing stage 3 or 4 pressure injury</li> <li>When a high to very high risk patient is required to sit out of bed</li> </ul>	<b>Approximately 6-8 hourly*</b>  <b>Upper Weight Limit 260kg</b>
<b>High Risk</b>  <div>Score Guide Braden 13 to 14</div> <div>Optional chair cushion available with this mattress</div>	<b>Limited Mobility</b>	<b>BI-WAVE</b>  <b>ND2 Airstream</b>	<b>FULL MATTRESS REPLACEMENT</b> <i>2 cell cycle</i> <ul style="list-style-type: none"> <li>Existing stage 2 or 3 pressure injury</li> <li>When patient is required to be nursed upright most of the time</li> <li><b>ND2</b> Step down setting for Pt. &lt;45Kg</li> <li><b>ND2</b> Timed Static Mode</li> </ul>	<b>Approximately 6 hourly*</b>  <b>Upper Weight Limit 220kg</b>
<b>Moderate Risk</b>  <div>Score Guide Braden 15 to 17 Pt. &gt; 75yrs old 15 to 18</div> <div>Optional chair cushion available with this mattress</div>	<b>Some Mobility</b>	<b>VIACLIN</b>  <b>NDA Airstream</b>	<b>MATTRESS OVERLAY</b> <i>2 cell cycle</i> <ul style="list-style-type: none"> <li>Existing superficial pressure injury eg. up to stage 2</li> <li>Weight less than 100 kgs (&gt;100 kgs consider Bi-Wave)</li> <li><b>NDA</b> Step down setting for Pt. &lt;45Kg</li> <li><b>NDA</b> Timed Static mode</li> </ul>	<b>Approximately 4 hourly during the day. Patient should tolerate 8 hours uninterrupted rest overnight if skin is intact*</b>  <b>Upper Weight Limit 168kg</b>



Dynamic Cushions  
Pegasus DAYCARER



Static Cushions  
ROHO QUADTRO  
JAY 2



*\* Recommended Repositioning Interval is intended for use as a guide only. If non-blanchable erythema is observed either reposition the patient more frequently or upgrade to a higher level support surface.*

**Pegasus OnLine Orders - [www.pegasusvic.com](http://www.pegasusvic.com)**  
**24 HOUR RENTAL HOTLINE: 9596 6377**

# Pegasus Products in BHS Consignment in Order of Efficacy.

## Airstream 3 & Cairwave.

- Minimal Repositioning
- Difficult to heal stage 3 & 4
- Fragile, Palliative, Pain Management with established PI
- Repositioning is Difficult , Dangerous or Inappropriate.

## Pegasus Trinova

- Healing of difficult, serious wounds is the primary focus

## Pegasus Airstream 2

- Airstream 2 is the Mainstay of Acute Wards - 80% of usage.
- Existing PIs, Previous History PIs, > 100Kg, Need to sit p in Bed

## Airflex Trio

- Prevention all wards, no or low end PIs, Comfort, Palliative

# Mattresses for Patients with 'Special Needs' available overnight from Melbourne Service Ctr.

## Total Heel Protection – Airstream 2 THP

- Therapeutic management of PIs on the Heels and Lower limbs

## Bariatric

- 3 Cell cycle based on Airstream 3
- 2 x Sizes , 1000mm, 1200mm.

## Pediatric

- 3 Sizes, Humide Crib, Crib, Cot

# Selecting the right APAM

- If ward mattress unavailable use consignment Mattress
- Use Pegasus online guide to help select the most suitable mattress
- Call wound CNC if in doubt
- Airstream 2 will suit most patient needs
- If selected mattress isn't unavailable use next level up & call Pegasus
- Pts. With special needs consult with Wound CNC

# Some Take home messages.....

- PI's and sDTI's can occur in as little as 1-2 hours
- Nurse onto wound when possible
- Ward Mainstays. Trios & AS2
- Any doubts check BHS 'CPG' Clinical Practice Guidelines
- TDS skin checks are not optional after 2 hour then top to toe skin check every Shift
- APAMs are not a substitute for regular positioning
  - Continue to reposition patients every 2 hrs regardless of surface
  - Top to Toe skin check every shift
  - Determine any change to repositioning frequency in consultation with the Wound CNC and with consideration to:
    - Response to current regime
    - Tissue Tolerance
    - Activity and mobility
    - General medical condition and treatment objectives



rotate for CPR operation

normal operation



CPR Mechanism for all NoDec Models, Located next to Pump.

Also used to Manually Deflate the Mattress for Storage



NoDec A & 2 AirStream Display Normal Pressure Mode



## NoDec A & 2 AirStream Display Panel Low Pressure Setting







# Airstream3



## Control Panel



Mode Button – Dynamic to Static mode. Static 30 minutes only

Program Button – Low, Normal & High Pressure setting

Max Inflate – For bed side procedures. Max Time 20 Minutes