DABIR®

Surgical System

An Innovation in Pressure Injury Prevention

PERIOPERATIVE CARE

When hospital acquired pressure injuries (HAPIs) occur in the perioperative setting they can negatively impact patient outcomes. Patients undergoing long procedures cannot reposition themselves, exposing them to cumulative effects of pressure. Deep tissue pressure injuries can present themselves **48-72** hours after surgical procedures.[1] In some instances, root cause analysis has shown that the origin of the pressure injury took place in the operating room. A meta analysis conducted of surgical procedures for 5,451 patients showed a pooled 15% incidence rate for pressure injuries regardless of time or the type of procedure.[2]

DABIR SURGICAL SYSTEM

Dabir offers an innovative solution for pressure injury prevention in the perioperative setting. The Dabir Surgical System provides whole body skin protection for patients in the perioperative setting. This innovative solution has been clinically demonstrated to mitigate the effects of deep tissue deformation and skin shear to prevent pressure injuries.

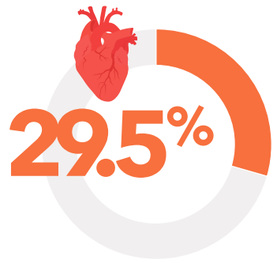
HOW IT WORKS

The Surgical System's low-profile surfaces are comprised of rows of geometric air-filled nodes that alternate by inflating and deflating to provide tissue offloading. This allows tissue reperfusion to occur thereby preventing pressure injuries.

Pressure Injury Prevention in the Perioperative Setting

WHEN REPOSITIONING IS NOT AN OPTION

In the perioperative setting, patients can be exposed to the cumulative effects of pressure beginning in pre-op through the intra-operative phase and into the PACU and ICU. It has been reported that **23% of all HAPIs are acquired intra-operatively during surgeries lasting three hours or more**.[3] Cardiac surgery patients are particularly at risk due to prolonged periods of time without the ability to reposition.[4,5]



Cardiac patients at risk for PIs

Incidence rate for developing perioperative pressure injuries

THE HAPI's BURDEN TO THE HEALTHCARE SYSTEM

In the United States, approximately 2.5 million hospital acquired pressure injuries occur each year that translates into treatment costs ranging from $750 million to $1.5 billion annually.[6] While estimates vary, the average cost to treat late stage pressure injuries is often cited at $43,180.[7]

In the U.S. pressure injuries are classified by the Centers for Medicare and Medicaid Services as "***never events***." Since 2008, healthcare providers are no longer reimbursed for treatment costs associated with the secondary diagnosis of pressure injuries.

Seamless Integration into Clinical Workflows

The Dabir Surgical System seamlessly integrates into your clinical workflow and procedural configurations.

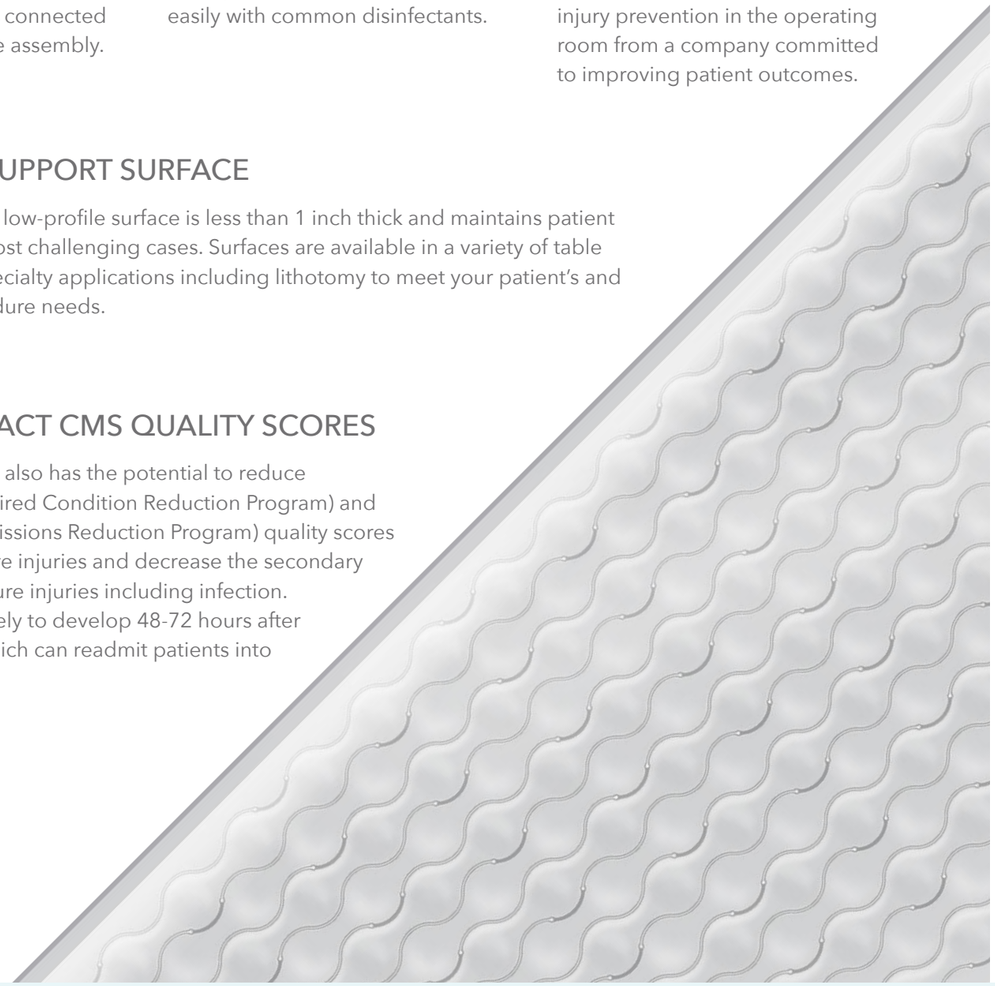
NOISE CONTROL:
The low noise controller sits comfortably on a variety of placement options. It is connected to the surface by a hose assembly.

EASY TO CLEAN:
The low-profile surface is multi-patient use and cleans easily with common disinfectants.

EASY TO USE:
This easy to use system represents an innovative solution for pressure injury prevention in the operating room from a company committed to improving patient outcomes.

LOW-PROFILE SUPPORT SURFACE

When fully inflated, the low-profile surface is less than 1 inch thick and maintains patient stability even on the most challenging cases. Surfaces are available in a variety of table widths, lengths and specialty applications including lithotomy to meet your patient's and specific surgical procedure needs.



POSITIVELY IMPACT CMS QUALITY SCORES

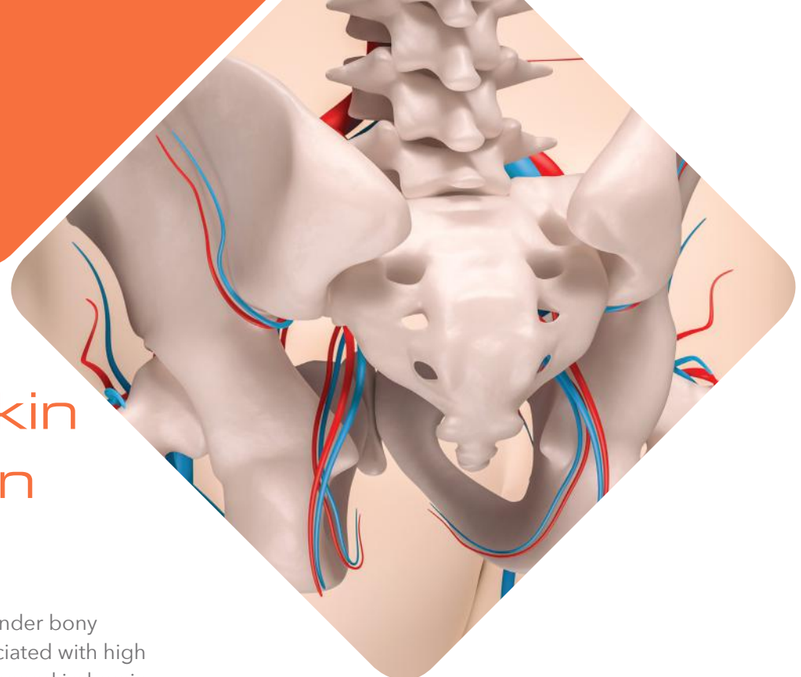
Using the Dabir system also has the potential to reduce **HACRP** (Hospital-Acquired Condition Reduction Program) and **HRRP** (Hospital Readmissions Reduction Program) quality scores associated with pressure injuries and decrease the secondary complications of pressure injuries including infection. Pressure injuries are likely to develop 48-72 hours after surgical procedures which can readmit patients into hospital care.

Readmission Rate

23%
OF PATIENTS
who develop pressure injuries during hospital stay are readmitted

The Dabir Surgical System has been shown to improve patient outcomes and has been successfully used in thousands of surgeries including cardiac, plastic surgery, neurosurgery, pediatric, transplants, and many more.

In a clinical study published in the JWOCN, the Dabir Surgical System reduced pressure injuries in neurosurgery cases from 6% to 0%. It has the potential to increase HCAHPS scores, Press Ganey scores, and other quality metric scoring systems for acute care providers.



Promotes Increased Skin Blood Flow in Sacral Area

Lengthy surgeries often expose tissues under bony prominences to loading conditions associated with high risk of developing pressure injuries. Prolonged ischemia may be one of the factors increasing risk. Alternating pressure (AP) has been shown to offload tissues and increase skin blood flow (SBF).

OUTPERFORMS SACRAL DRESSINGS

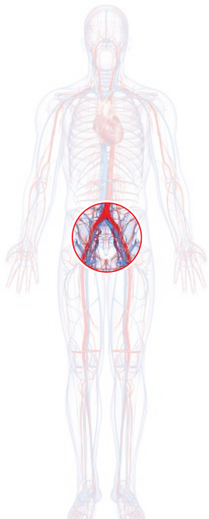
In lab testing, use of sacral dressing did not decrease interface pressure compared to OR pad alone condition. Use of the active Dabir surface lowered the IP values at the sacrum to less than 32 mmHg during the deflation cycles. The presence of the multiple layers in the sacral dressing did not decrease the IP values at the skin interface. IP values lower than 32mmHg is usually recommended to prevent occlusion of blood flow in the capillaries.

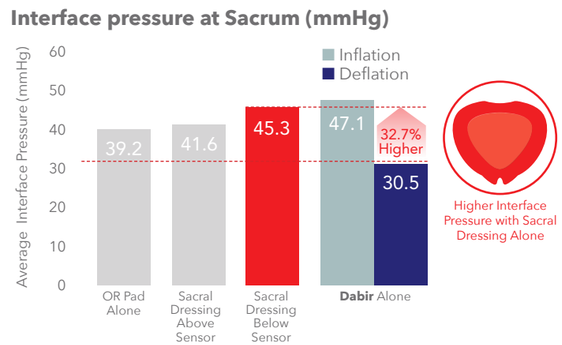
MORE EFFECTIVE THAN STANDARD PROTOCOL

The AP support surface was more effective at increasing sacral SBF over time than standard protocols, especially in participants with lower BMI who are at high risk for developing hospital-acquired pressure injury (HAPI).

The tissue decompression observed during the deflation cycles may allow enhanced perfusion thus limiting risk for developing PIs from ischemia and constant loading.

Sacrococcygeal, Stage III pressure injury
Image courtesy of NPUAP





Average interface pressure e (IP) under the sacrum during the deflated cycles of the Dabir surface was significantly less (<32 mmHg) than the continuous IP observed for the OR pad alone and sacral dressings (above and below). The IP values at the skin/sacral dressing inner layer interface were higher compared to the sacral dressing outer layer/OR pad interface. Red dotted line indicates IP of 32 mmHg.

Dabir Surfaces are Compatible

COMPATIBLE WITH COMMONLY USED GROUNDING PADS

The effectiveness of electrosurgical procedures is dependent on having sufficient contact area between the patient and the grounding pad.

Test data show that Dabir surfaces are compatible with popular commercially available grounding pads and provide effective periodic pressure reduction throughout the surgical duration.

DISPOSABLE PATIENT TRANSFER SURFACES

Internal data demonstrated that the Dabir surgical surface is compatible with popular patient transfer devices when it is placed above the Dabir surface. The data also shows that the interface pressure during the deflation cycles of the Dabir surface is significantly lower than the continuous pressure observed with the patient transfer surface alone. Patient transfer surface should be deflated when the Dabir surface is used.

About Dabir Surfaces

Patients who are immobile for prolonged periods of time are at risk for pressure injury. Immobilization can be the result of many factors including surgery, the recovery process, during mechanical ventilation, or with a paralysis related injury. As a preventative solution, the Dabir surface can preserve arterial, venous, and lymphatic blood flow for these patients and help maintain healthy tissue perfusion. Rows of geometric nodes provide dynamic alternating pressure relief and reduce the effects of tissue deformation and skin shear. This innovative surface was designed by Dabir to take the guesswork out of pressure injury prevention.

References

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[8] Patricia Karga, Vinoth K.Ranganathan, Michael Churillaa, DavidBrienza, Sacral skin blood flow response to alternating pressure operating room overlay: Journal of Tissue Viability Volume 28, Issue 2, May 2019

For more information on the **Dabir Surgical System**, contact your local sales representative or visit **dabir-surfaces.com**

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R01-0008-00075-AB