

Still the One and Only Fluid Immersion Therapy

Heals. Comforts. Restores.



Trusted therapy across the care continuum with
over 450,000 satisfied patients and caregivers

64,000 patients per year and their caregivers
agree - Dolphin's advanced technology supports
wound care best practice





The [Dolphin] therapy surface helps maintain blood flow and tissue perfusion by more evenly redistributing pressure, thereby eliminating high pressure points, reducing tissue deformation, and improving wound healing. The mattress is designed to reduce pressure across the body, maintain an appropriate microclimate and to promote patient comfort.⁶



*Jacqui Fletcher, Clinical Editor, Wounds UK;
Fellow, NICE; Clinical Strategy Director,
Welsh Wound Innovation Centre, UK*



A Fluid Environment from Hospital to Home

Patients suffer from an estimated 200,000 Stage 3 or 4 pressure injuries each year, costing a hospital between \$24,000 - \$36,000 per patient.¹







Pressure injuries are made worse by impaired mobility, decreased perfusion and edema that often requires significant intervention.²

As more patients enter SNF/IRF* with localized ischemia and pressure ulcers, there is a continued need for the Dolphin Fluid Immersion Simulation® (FIS) Therapy system in long and short term care facilities.³

The Dolphin FIS is easy to use and fully autonomic, promotes long-term sustainable care in all care settings including the home.

Emulating the Effects of a Body Floating in Water

Dolphin's combination of immersion and envelopment benefits the patient by:

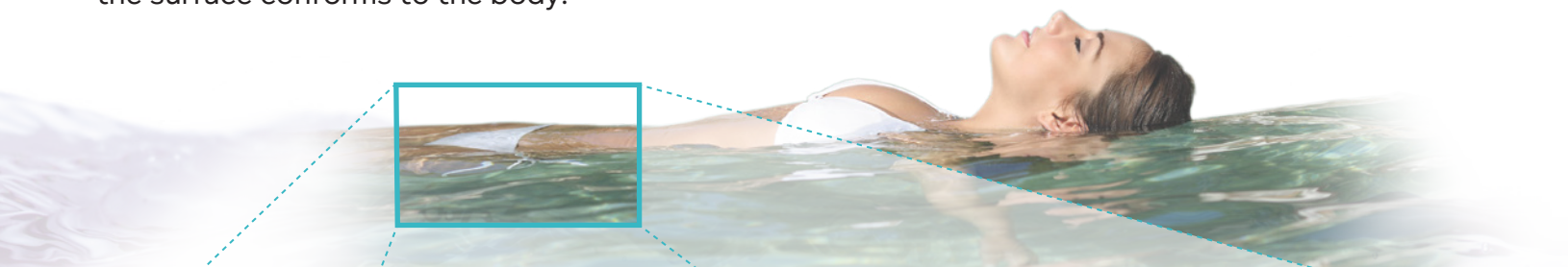
-  Minimizing vascular occlusion, maintaining near normal blood flow
-  Reducing soft tissue distortion from pressure and shear
-  Preventing and treating pressure injuries through Stage 4
-  Decreasing tissue ischemia
-  Maintaining tissue symmetry
-  Improving patient comfort

*Skilled Nursing Facility/Inpatient Rehabilitation Facility

Why Dolphin Delivers Optimal Results in Wound Care

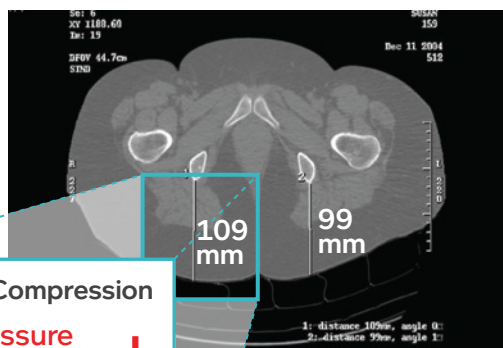
With a 39% incidence rate of pressure ulcers or related injury in hospitals and long-term care facilities,¹ Joerns' Dolphin is an innovative solution to a long-standing challenge in wound care: soft tissue strain from the scientific and mechanical forces applied by support surfaces.

The Dolphin is a successful therapy because it is based on a simple notion: Rather than the body being forced to conform to a surface, the surface conforms to the body.

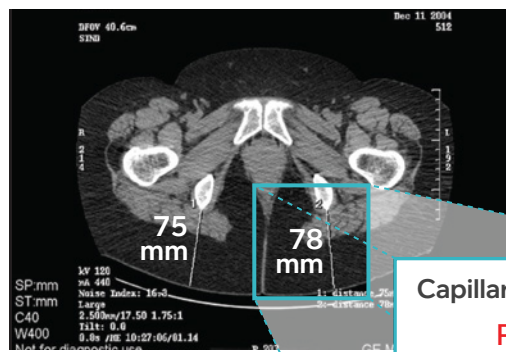


Biomechanical Impact of a Surface on the Body

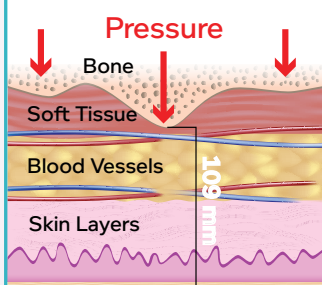
Dolphin FIS



Control

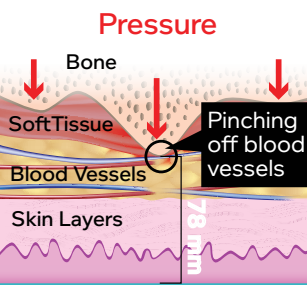


Capillary Compression



The maintenance of tissue perfusion is a key reason for Dolphin Therapy positive outcomes, even in the most compromised of patients.

Capillary Compression



How It Works

The Dolphin system utilizes complex algorithms and a microprocessor to precisely adjust the surface and optimize for each patient's unique 3D anatomical features. It automatically calculates the settings needed to simulate "floating". The system monitors the support surface, constantly adjusting as the patient repositions.

With a fully autonomic system, a caregiver simply turns on the Dolphin before placing the patient in the bed. This reduces the need for intensive training and requires less of the caregiver's time, allowing them to focus more on overall patient care.

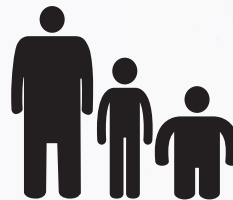
What the Dolphin Does that Air Fluidized Therapy Cannot

Our proprietary Dolphin technology, combined with Joerns unique service network, provides unmatched, advanced wound care therapy from the hospital to the home. With a variety of unique features that speeds up recovery time and prevents further injury, the Dolphin FIS is an optimal solution for complex wound care and prevention.

The Dolphin is an autonomic closed system that simulates the effects of fluid immersion.

Adjusts to individual anthropometric profile

Sophisticated surface area analysis determines the ideal, individualized patient immersion profile, allowing Dolphin to deliver immersion therapy across the entire surface, not just torso and legs.



Flotation and immersion systems based on high volumes of air flow generate heat as a byproduct resulting in increased water loss, which can potentially lead to dehydration and compromised microclimate conditions.

The Dolphin has demonstrated the ability to help reduce the average length of stay and has also proven effective in preventing “Never Events” that can cost facilities billions in additional patient care.

The Dolphin’s auto firm feature easily allows repositioning and transfer of patients and may reduce caregiver work related injuries.

Integrated battery back-up allows continuous therapy during transport and power outages.

As a result, the Dolphin technology not only delivers better outcomes but also addresses broader challenges such as readmission rates, caregiver injuries, and the overall cost of care.

The floating effects are simulated, but the outcomes are real.

San Diego Healthcare System

In laser doppler flow studies, tissue perfusion was significantly improved for Dolphin surface compared to foam surfaces.⁴

- 87% retention of perfusion was maintained on the Dolphin surface compared to 16% on standard beds
- All test subjects had statistically significant improved blood flow using the Dolphin mattress

National Health Services (NHS)

In a pilot study, 18 very high risk and complex patients completed the Dolphin study.⁵

- No pressure injury free patients went on to develop one
- Of patients with existing pressure injuries, 2 healed, 7 improved, 5 remained static
- Staff consistently praised assistance to healing process, and patient comfort

Cardiff and Vale University Health Board

In a review of 19 hospitals and 160 complex patients, Dolphin therapy provided a range of improved outcomes.⁶

- 49 patients showed pressure injury improvement, 7 healed, 31 remained static
- 71% of patients with lesions due to maceration improved or healed
- 115 patients reported improved comfort
- 91% of patients noted pain improvement

Memphis VA Medical Center

Dolphin therapy showed positive outcomes vs. Air Fluidized Therapy (AFT) in VA spinal care units.⁷

- The 60 bed spinal units in a large VA facility experienced high heel pressure injury incidence rates (11%) and high rental cost using AFT
- Management goals were to prevent or heal pressure injury and reduce rental costs
- After purchasing 44 Dolphin therapy surfaces:
 - Unit heel incidence decreased from 11% to 0%
 - Rental savings equated to \$13,000 per Dolphin surface purchased

Sparrow Specialty Hospital

A study compared Myocutaneous flap healing on the Dolphin mattress vs. Air Fluidized Therapy.⁸

- Patients were tracked for over one year
- Outcomes included incisional healing, successful flap closure, and improved patient comfort postoperatively
- Based on the clinical outcomes, ease of clinician use and significant cost savings, Dolphin replaced AFT as protocol surface of choice

Indications for Use

- 💧 Patients within intensive care units, plastic surgery, vascular surgery, trauma units and orthopedic units
- 💧 Patients with pressure-related tissue damage and those undergoing flap surgery for wound repair
- 💧 Prevention of skin breakdown in vulnerable patients including spinal cord injury where the spine has been stabilized
- 💧 Where repositioning is challenging, e.g. for patients in ICU/CCU/NICU
- 💧 Patients who are noncompliant with repositioning



Let us show you a Dolphin.

The benefits of this advanced wound care therapy – convenient, cost effective advanced wound therapy from Hospital to Home.

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2. S. Coleman, C. Gorecki, E.A. Nelson, et al. Patient risk factors for pressure ulcer development: systematic review. *Int J Nurs Stud.* 2013;50(7):974–1003.

3. S.D. Horn, S.A. Bender, M.L. Ferguson, R.J. Smout, N. Bergstrom, & G. Taler, et al. (2004). The national pressure ulcer long-term care study: Pressure ulcer development in long-term care residents. *Journal of the American Geriatric Society*, 52(3), 359-367.

4. Som Kohanzadeh, MD; Andrew Breithaupt, MS; Artur Bondarchuk, MD; Dhaval Bhavsar, MD; Lars Evers, MD; Kevin Broder, MD; Marek Dobke, MD; Richard Bodor, MD. Division of Plastic Surgery, UC San Diego and VA La Jolla Medical Center, San Diego, California, Effectiveness of the Dolphin Bed as a Tool to Improve Tissue Perfusion in Points of Compression. Data on file.

5. Jacqui Fletcher, Clinical Editor, Wounds UK; Fellow, NICE; Clinical Strategy Director, Welsh Wound Innovation Centre, UK; Co-authors – Ceri Harris, Clinical Nurse Specialist Wound Healing, Cardiff and Vale University Health Board, Cardiff, UK; Kirsty Mahoney, Clinical Nurse Specialist Wound Healing – Community, Cardiff and Vale University Health Board, Cardiff, UK., A small-scale evaluation of the Dolphin Fluid Immersion Simulation® Mattress; *Wounds UK | Vol 10 | No 1 | 2014*

6. Jacqui Fletcher, Clinical Editor, Wounds UK; Fellow, NICE; Clinical Strategy Director, Welsh Wound Innovation Centre, A 160 patient evaluation of Dolphin Fluid Immersion Therapy. Data on file.

7. Nursing Executive Center, The Advisory Board Company 2009, Safeguarding Against Nursing Never Events-Best Practices for Preventing Pressure Ulcer and Patient Falls, pg.72. Data on file.

8. Keum-Lee Mayes, RN, WCC, Supervisor, Wound/Dialysis Services, Sparrow Specialty Hospital, Lansing, MI; Julia Melendez, RN, BSN, JD, CWOCN, National Clinical Director, Joerns Healthcare, Cost Effective Care without Clinical Compromise: Incorporating the Dolphin Fluid Immersion Simulation® Mattress System into the Postoperative Care of Patients undergoing Myocutaneous Flaps, Wild on Wounds National Conference. Sept 12 - 15, 2012; Las Vegas, NV.