

How It Works:

Dolphin Fluid Immersion Simulation® (FIS) software utilizes complex algorithms and a microprocessor to precisely adjust the surface density to each patient's unique anatomical features. It automatically calculates the exact settings needed to simulate floating in a fluid medium.



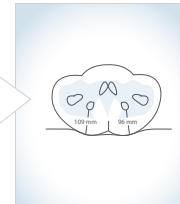
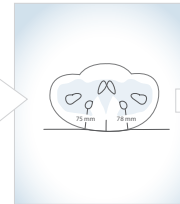
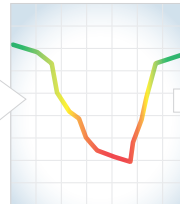
Step 1

Patient lies down and the FIS software begins to work



Step 2

FIS software automatically calculates the exact settings needed to mimic immersion in a fluid medium to relieve any contact pressure



Step 3

Soft tissue distortion is minimized and near normal blood flow is maintained

Tissue Distortion Comparison

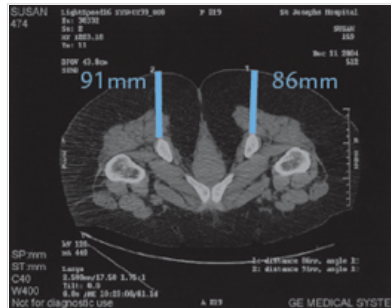


Figure 1

CT scan of subject in prone position shows natural symmetry of the gluteal area and distances from the most posterior point of the ischial tuberosities to the skin surface as 91mm and 86mm.

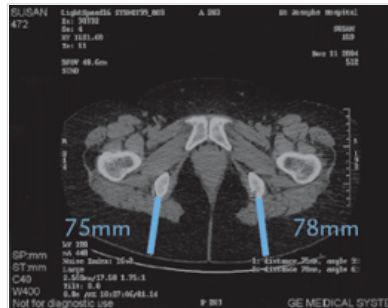


Figure 2: Two-dimensional surface

CT scan of subject in the supine position on a two-dimensional surface shows subcutaneous tissue and muscle has compressed and distorted, as well as the lumen diameter of micro-circulation has been reduced, with complete loss of gluteal fold. Distances from the most posterior point of the ischial tuberosities to the skin surface are 75mm and 78mm.

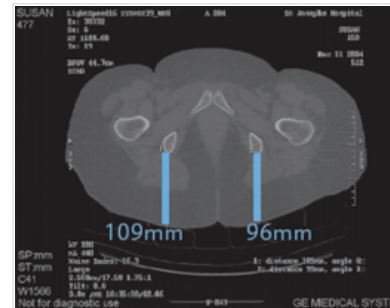


Figure 3: Three-dimensional surface

CT scan of subject on the three-dimensional Dolphin surface indicates the natural symmetry of the gluteal area returns and maximization of the normal lumen diameter of micro-circulation, with restoration of tissue symmetry. Distances from the most posterior point of the ischial tuberosities to the skin surface are now 109mm and 99mm.

Additional Clinical Evidence to Support the Effectiveness of the Dolphin Fluid Immersion Simulation

Effectiveness of the Dolphin System as a Tool to Improve Tissue Perfusion in Points of Compression

- Division of Plastic Surgery, UC San Diego and VA La Jolla Medical Center, San Diego, CA
- Findings: The Dolphin System provided statistically significant improvements of tissue blood flow as compared to standard beds and gurneys.

Safeguarding Against Nursing Never Events: Best Practices for Preventing Pressure Ulcers and Patient Falls

- The Advisory Board Company found that the Dolphin system reduced nosocomial pressure ulcers from 11% - 0%¹.
- Recommendations: Fluid Immersion Simulation recommended for consideration by hospitals treating significant population of spinal cord injury patients or other patient populations with multiple system breakdowns. The Dolphin system was rated 5 out of 5 stars for effectiveness.

1 2009 The Advisory Board Company. 18645
http://www.biologics900t.com/Nursing_Executive_Center-Pressure_Ulcer_Prevention_Cutting_Edge_Technology.pdf

These clinical studies were conducted by UC San Diego, VA La Jolla Medical Center, and the Advisory Board Company. Universal Hospital Services, Inc. makes no representations or warranties as to the accuracy of these studies and assumes no liability or responsibility for any error or omission.

