AlloWrap®
AMNIOTIC MEMBRANE

SURGICAL BARRIER
FOR SPINE PROCEDURES

AlloSource®
DOING MORE WITH LIFE

ALLOWRAP DS & ALLOWRAP DRY
**THE REAL COST OF SCARRING**

It is estimated annual healthcare costs for failed back surgery syndrome (FBSS) are up to $20 billion in the United States and affects up to 40% of patients following spine surgery. The most common occurrence of FBSS is epidural fibrosis, (scar tissue development) reported to occur in up to 91% of patients with 36% of those patients reporting pain. Conventional spinal treatments are proving to be very costly for both the hospital and patient. AlloWrap successfully acts as a dual-sided, natural mechanical barrier when placed between the dura mater and overlying tissue during spinal procedures.

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**PATIENT IMPACT: A LONGER LASTING BARRIER**

An ideal surgical barrier should withstand absorption throughout the body’s natural healing phases; inflammation, proliferation, and remodeling. In doing so, the use of a surgical barrier can result in outcomes with less scarring, potentially reducing pain and assisting the patient in returning to normal functionality.

<table>
<thead>
<tr>
<th>TISSUE PRESENCE</th>
<th>DAYS IN HEALING PROCESS</th>
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</thead>
<tbody>
<tr>
<td>Fresh Amnion (6 days)</td>
<td>0 – 6 days</td>
</tr>
<tr>
<td>Cryopreserved Amnion (6 days)</td>
<td>0 – 6 days</td>
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<tr>
<td>Seprafilm (7 days)</td>
<td>0 – 7 days</td>
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<tr>
<td>Interceed (14 days)</td>
<td>0 – 14 days</td>
</tr>
<tr>
<td>AlloWrap (8+ weeks)</td>
<td>8+ weeks</td>
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</tbody>
</table>

- Alternative therapies dissolve too quickly during the healing process, and don’t protect against scarring. Tissue grafts processed in a like manner as AlloWrap have been shown to remain in the body past the proliferation phase and into the remodeling phase.
- Use of surgical barriers can result in outcomes with less scarring, potentially reducing pain and increasing post-operative functionality.

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**SURGEON IMPACT: EASING THE BURDEN OF DISSECTION**

It is estimated that 9% of spinal surgery patients will require a follow-up revision. Epidural fibrosis is a natural consequence of fusion surgery that could lead to dissection complication and possibly dural tears. AlloWrap has been shown to ease some of these potential complications.

- Aids in the dissection of revision surgery.
- Amniotic based surgical barriers have been shown to contain a natural balance of cytokines that can assist the body in reducing epidural fibrosis, inflammation, and infection at the surgical site. Revision dissections, therefore, can become less complicated.
- Studies have shown that growth promoting and inhibiting proteins found in amniotic barriers can regulate fibrosis and help control inflammation and scarring.

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**THE REAL COST OF SCARRING**

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Conventional spinal treatments are proving to be very costly for both the hospital and patient. AlloWrap successfully acts as a dual-sided, natural mechanical barrier when placed between the dura mater and overlying tissue during spinal procedures.
HOSPITAL: REDUCING HOSPITAL COSTS

Financial costs to the hospital for spinal revision surgeries are estimated to average between $68,000 - $137,000 per case.\textsuperscript{15,16} AlloWrap can help contain these expenditures.

- When AlloWrap is implanted it reduces susceptibility of time-consuming and complex dissection, which makes it a cost-effective solution for hospitals. It has the potential to reduce operating room time of future surgeries and post-surgery hospital stay due to incidental durotomies.
- Surgeons will estimate a 2 to 3 times increase in operating room time for revision surgery due to the complex dissection of scar tissue and adhesions.\textsuperscript{11} Increased operating room time is directly correlated to increased hospital costs and using AlloWrap could help control these costs.

 REGARDLESS OF THE SURGICAL APPROACH, BOTH ALLOWRAP DS AND ALLOWRAP DRY ARE IDEAL NATURAL SURGICAL BARRIERS FOR SPINAL PROCEDURES.

AlloWrap’s dual-sided design allows for \textit{in situ} placement, without concern for orientation. AlloWrap DS has a moist, hydrated format which is especially suitable for endoscopic surgical application, whereas AlloWrap Dry is dehydrated for precision open-surgical placement.
7. Duncan, Jan MD. *Clinical experience with allowrap DS amniotic membrane used as a barrier to minimize adhesions following spinal surgery.* Allosource 00098 – Lit (002) – 02/2019
11. Samaniego, Adrian, B.Sc., AlloSource, Centennial, CO Human amniotic tissue as an anti-adhesion, anti-fibrotic barrier in an ovine spinal laminectomy model

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**FOR MORE INFORMATION OR TO ORDER**

**TOLL FREE**
800. 557. 3587
allosource.org/products/allowrap

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**AlloWrap® DS Moist Natural Surgical Barrier**

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<th>PRODUCT DESCRIPTION</th>
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<td>70120004</td>
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<tr>
<td>AlloWrap DS 2 cm x 4 cm</td>
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<td>70120016</td>
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<tr>
<td>AlloWrap DS 4 cm x 8 cm</td>
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**AlloWrap® Dry Natural Surgical Barrier**

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