



US DEPARTMENT OF DEFENSE  
**BLAST INJURY RESEARCH PROGRAM**  
**COORDINATING OFFICE**

## **Pain Management and Rehabilitation after Amputation Epidural Adhesiolysis: An Evidence-based Review**

Researchers at CRSR at USUHS published an extensive review article in the *Journal of Neurological Sciences* summarizing the benefits of the epidural lysis of adhesions (LOA) and a general overview of the process itself. Through the mechanical dissolution of epidural scar tissue, LOA may directly alleviate pain and facilitate the spread of analgesic substances to areas of pain generation. Although most commonly performed for failed back surgery syndrome (FBSS) in the lumbar region, a growing body of evidence that suggests LOA may be effective for spinal stenosis (SS) and radicular pain stemming from a herniated disc. There is preliminary evidence that LOA is more effective than conventional caudal epidural steroid injection (ESI) for FBSS and SS, and that LOA is more effective than sham adhesiolysis and conservative management for lumbosacral radiculopathy. For cervical disc herniation and SS, there is only anecdotal evidence suggesting effectiveness and safety. LOA may be more effective than traditional epidural steroid administration because of the high volume of corticosteroid administered, the use of hypertonic saline, and to a lesser extent the use of hyaluronidase and a navigable catheter to mechanically disrupt scar tissue and guide medication administration. Although LOA is widely considered a safe intervention, the complication rates are higher than those for conventional ESI. This review article suggests that larger randomized studies comparing epidural LOA to sham adhesiolysis, conventional ESI, and conservative treatments are needed to confirm efficacy, and to identify those patients and conditions most likely to respond to treatment. With further development, LOA has the potential to be an effective solution for treating pain in injured Warfighters.