

# Lunotriquetral Revision Arthrodesis Using the OSStaple™

*A Case Study*

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## History

A 47 y/o HM truck driver sustained an industrial hyperextension injury to his left wrist secondary to a six-foot fall off of his truck. Clinical exam and diagnostic arthrogram confirmed a lunotriquetral ligament injury that later failed conservative treatment of splinting x 2 months. Patient initially underwent primary lunotriquetral (L-T) arthrodesis augmented with distal radius bone graft and a variable pitch screw. The patient experienced clinical and radiographic nonunion postoperatively confirmed at nine months (fig. 1).



Fig. 1

## Surgery

Variable pitch screw was removed, and nonunion site was thoroughly debrided. Lunotriquetral interval was augmented with iliac crest bone graft. In order to mechanically stabilize the arthrodesis site by dynamic compression a 15mm x 12mm Nitinol OSS Staple™ by BioMedical Enterprises, Inc. in San Antonio, TX was selected for improved fixation (fig. 2 & 3).



Fig. 2



Fig. 3

## Conclusion

Revision arthrodesis achieved at 12 weeks postoperative with radiographs showing bridging trabeculae across the lunotriquetral joint. Postoperative course included cast immobilization followed by thumb spica splint with mobilization exercises.