

## **11 Year Study Proves Best Solution for AC Joint Separation Surgery**

*Dr. Steven Struhl, a leading Orthopedic Shoulder Specialist, had his 11-year study published in The American Journal of Sports Medicine this past week. The study reveals that his "Continuous Loop" procedure has better results than tendon grafting and suture-button techniques, as well as other traditional methods for an AC Joint Separation*

([PRWEB](#)) August 30, 2015 -- The in-depth study of 35 patients of [Steven Struhl, MD](#) (Orthopedic Surgeon and Shoulder Specialist) patented "Closed-Loop Double Endobutton Repair" or "continuous loop" procedure for an [Acromioclavicular Joint Separation](#) has shown superior results when compared to suture-button and traditional techniques.

Figures show that there are 60,000 new complete AC Joint Separations that occur each year in the U.S. Without surgical intervention, the biomechanical and cosmetic consequences of the injury are permanent. It is a common shoulder injury that requires clinical attention by an orthopedic shoulder specialist.

### **TWO-DIMENSIONAL APPROACH FOR A THREE-DIMENSIONAL PROBLEM**

The natural movement of the shoulder and ac joint is more complex than a traditional two-dimensional x-ray shows us, since the joint motion moves in 3 planes (protraction/retraction, abduction/adduction, and anterior/posterior tilt). Traditional surgeries typically cannot withstand the everyday movement of the shoulder and ac joint, and this results in limiting widespread acceptance of surgeries. Therefore, some doctors take a "wait and see" approach.

### **TRADITIONAL METHODS..."WAIT AND SEE"**

Unfortunately, most of the injuries will be treated non-operatively. Without operating, these AC Joint Separations will suffer:

- Cosmetic defects.
- 40-45% will have residual symptoms.
- Nearly 1/4 will have unsatisfactory outcomes.

"It is very common to be advised to adopt a 'wait and see' approach. This stance will likely turn an acute injury into a chronic deformity. The patient will then be requiring reconstruction, most likely with a graft, and with most certainly inferior outcomes", explains Dr. Struhl.

### **SUTURE-BUTTON CONFIGURATION PRONE TO KNOT SLIPPAGE AND BREAKAGE**

Previous studies have shown that suture-button configurations that require a knot have poor results as a long-term solution. In fact, studies have shown that this method experiences slippage in 31% to 50% of the cases, as well as surgical complication rates of 27% to 52%.

Due to these unsatisfactory results, Dr. Steven Struhl and his team began research to find a solution where consistent long-term success without slippage for both acute and chronic ac joint dislocations could be achieved by combining a comprehensive soft tissue repair with a continuous loop procedure.

## U.S. Patented "Closed-Loop Double Endobutton Repair" or "Continuous Loop" AC Joint Separation Procedure with SUPERIOR RESULTS

This study demonstrated that the use of a continuous loop design, significantly improved outcomes over standard suture-button configurations. Results proved that the “closed-loop” eliminates the problem of knot slippage or breakage that is inherent to a standard suture-button device. More importantly the loop has similar stiffness and more than double the strength of one’s own ligament. The "loop" was found to be durable and reliable, showed effective healing, and large load-bearing grafts were avoided.

### Patented Technique

Dr. Struhl explains, “The surgical design was to use a continuous loop to eliminate knot breakage and slippage, is in line with biomechanical principles and always creates a biologic connection between the coracoid and the clavicle. The technique is open, the joint is reduced, a hole is drilled, the channel length is measured and the appropriate loop size is chosen and prepared with sutures. When the measured channel is within 1mm, a standard endobutton is used. When the measurement is in between, a larger loop is chosen, which leaves excess loop that is filled with an extended button that is thicker and wider and compensates for the extra loop.”

### Study Group with comprehensive evaluations

The study group consisted of 35 patients, who were followed for 4 to 11 years. Industry best practices of outcome scoring systems were used to validate results. For each patient, X-rays were done and quantitated comparing normal with the operative side. Follow-up information was obtained on all 35 patients and comprehensive evaluations were performed on 31.

### The Results...Across the board positive scores!

At follow up, the average constant score was 98 (0-100), the mean University of California, Los Angeles Shoulder Rating Scale score was 34 (0-35), the mean American Shoulder and Elbow Surgeons Shoulder Score (ASES) was 98 (0-100) and the Simple Shoulder Test (SST) score was 11.3 (0-12). The average amount of “slippage” was only 1.2 mm, which is well below the clinical failure rate of 3 mm.

There was no tendency for loss of reduction over the 11-year period. Cosmetic appearance of both the incision and the shoulder was quite good. One patient did re-dislocate after an acute trauma; there was one asymptomatic late fracture and one patient required a late distal clavicle excision for pain. Follow-up MRI evaluation was performed on 10 patients, which confirmed a robust healing response.

### Why does the Double Endobutton Continuous Loop Work?

- It has a strong and durable fixation
- Allows for normal physiologic movement
- Surgeon friendly that minimizes complication risk and plan for long-term biologic stability.

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About Steven Struhl, MD



Steven Struhl, MD is board certified in both Orthopedic Surgery and Sports Medicine/Arthroscopic Surgery and has been in private practice for over 22 years. He is currently on faculty at NYU Langone Medical School and is a member of the teaching service at the Hospital for Joint Diseases. He has authored numerous peer review articles and his research has been presented both nationally and internationally.

For more information about Dr. Steven Struhl's patented "Closed-Loop Double Endobutton Repair" for an AC Joint Separation, please visit [www.shouldersandknees.com](http://www.shouldersandknees.com) or [www.acjointseparation.com](http://www.acjointseparation.com). For a copy of this study, please visit <http://ajs.sagepub.com/content/early/2015/08/07/0363546515596409>.



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