

## **When do Patients Return to Sport? Arthroscopic Anatomic Glenoid Reconstruction vs. Bankart Repair**

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**INTRODUCTION:** Anterior shoulder instability is the most common pattern in shoulder instability, with history of instability and participation in contact or collision sports known as common risk factors. Recurrent instability is a challenging problem, creating major physical and mental barriers to return to same level of athletic or occupational activities. Previous literature has described that anywhere from 60 – 100% of patients return to sport following procedures such as Bankart repair, or Latarjet, for anterior shoulder instability. However, it is currently unknown the rate and timing of return to sport after Arthroscopic Anatomic Glenoid Reconstruction (AAGR). This study aimed to determine the rate of return and the time to return to sport either competitive or recreational level of patients who underwent AAGR. Reasons why patients did not return to sport were explored as a secondary objective.

### **METHODS:**

This is a retrospective analysis of prospectively collected data. A total of 82 patients who had AAGR between 2013 and 2021 were reviewed for data pertaining to return to sport. Participants older than 16 were included in the study if they participated in a sport prior to surgery at the recreational or competitive levels (including varsity and elite) and if the patient had a 2-year follow up clearly outlining whether or not they returned to sport, what sport they played, the date they returned to their sport, and the reason as to why they did not return. A descriptive analysis was completed on the percentage of patients that returned to their pre-injury sport, as well as when they returned. A Chi-squared test was used to analyze the difference in percentage of patients who returned to their sport for recreational level athletes, as well as competitive level athletes. Demographics (age and sex) were also analyzed between the recreational and competitive groups.

**RESULTS:** A total of 82 patients were included in analysis who had a 2-year follow up regarding return to sport outcomes following AAGR. Forty-six patients identified as recreational athletes and thirty-six as competitive. The percentage of patients who returned to sport was not significantly different ( $p > 0.05$ ) between the two levels of sport (competitive = 60%, recreational = 80%). The average time to return for competitive athletes was 16 months, and 13 months for recreational athletes. These values were not significantly different between the two levels of sport. Pain and discomfort (23%), lack of confidence or fear of re-injury (31%), aging out of the league (19%), and prioritizing work/life over sport (27%) were the common reasons for not returning to sport. Although the dataset presented more males ( $N = 62$ ) than females ( $N = 20$ ), the percentage of males (68%) and females (70%) who returned to sport were not significantly different ( $p > 0.05$ ).

**DISCUSSION AND CONCLUSION:** This study provides valuable insights into the rate and time to return to sport following AAGR with distal tibia allograft. The findings suggest that the level of sport (recreational vs. competitive) does not significantly impact the rate of return to sport or the time it takes to return. The rates of return are similar to previously reported values for other shoulder instability procedures. These results can aid in setting realistic expectations for patients undergoing AAGR and can help guide discussions around postoperative rehabilitation.