In Football Players with Scaphoid Fractures, How Does Surgical Intervention Compare to a Conservative Intervention for the Outcomes of Repair? A Critically Appraised Topic

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In Football Players with Scaphoid Fractures, How Does Surgical Intervention Compare to a Conservative Intervention for the Outcomes of Repair? A Critically Appraised Topic

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**CLINICAL SCENARIO**
Scaphoid injuries are common in high impact or high collision sports with 11% of all hand injuries and 60%-70% of all carpal injuries being attributed to the scaphoid bone. Athletes at the highest risk include males ages 20-24 years of age and those who participate in football, basketball, or ice hockey. Fracture of the scaphoid are often misdiagnosed which increase the chance of a nonunion fracture. Currently most scaphoid fractures are treated either conservatively or with surgical interventions. The increasing knowledge of this injury leads us to question the best treatment options for future football athletes.

**FOCUSED CLINICAL QUESTION**
In Football Players with Scaphoid Fractures, how does surgical intervention compare to a conservative intervention for the outcomes of repair?

**SUMMARY OF KEY FINDINGS**
Scaphoid fractures are more commonly seen in football lineman and defensive backs who have to repetitively block during competition. Scaphoid fractures have a lower incidence rate but have a high surgical and season ending rate. Both conservative and surgical treatment for scaphoid fractures have long term consequences including but not limited to loss of range of motion, decreased grip strength, nonunion fractures, and arthritic changes. Return to play rate is higher when treated surgically versus conservatively; operative union rate is higher than a non-operative union rate; cast with surgical intervention has a faster return than a cast with a conservative intervention. Overall, patients who undergo surgery have a better return to sport rate.

**STRENGTH of RECOMMENDATION**
Articles used in this review were graded at a IIa level. This level was reached from the inclusion of a systematic review, prognostic study, two descriptive epidemiological studies, and two literature reviews. The Center for Evidence-Based Medicine (CEBM) Criteria was used to assess each article. The systematic review was rated a 1a level due to the fact that it includes different levels of studies and is able to be generalized to multiple populations. The prognostic study was graded 2b because of the fact that it includes different levels of studies and is able to be generalized to multiple populations. Both descriptive epidemiological studies were graded at 2b levels because they used the NCAA Injury Surveillance Program to gather data on a single untreated population. Finally, the two literature reviews were graded 2c levels because they would fall under the umbrella of “outcome research” looking at the overall effects of interventions on public health.
REFERENCES


