

Surgery may be the best option for first-time shoulder dislocation in young athletes

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Video Abstract

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Abstract

Shoulder dislocations and partial dislocations are some of the most common and disabling injuries in active young people, especially athletes. After the bone has been popped back and the initial agony is over, the issue of what to do next is much debated. One option is surgery to try to repair the damage, but whether that is preferable to less-invasive care remains controversial. Researchers now have evidence that supports the surgical option, at least for young people suffering a first event. The team monitored the degree of bone damage to the shoulder socket, or glenoid bone, which holds the head of the humerus in place. Until now, there has not been much information about the extent of this damage to guide a decision on the best approach. The shoulders of 714 student athletes were imaged by MRI scanning, and the subjects were then followed for four years. During this time, 22 of the sample group experienced a first-time anterior dislocation or partial dislocation—events in which the arm bone is pushed forward from its normal location. One individual suffered such an injury in each shoulder. The injuries included five full dislocations and 18 partial dislocations. Another six athletes with a previous history of shoulder injuries experienced one dislocation and five partial dislocations. Comparing the MRI scans made before and after the injuries revealed the level of bone loss in the glenoid bone, and also any associated damage to the surrounding tissues. On average, a single injury led to a 6.8% decline in glenoid bone width. Four shoulders suffered 13.5% or more bone loss, while 12 shoulders had at least 5% bone loss. Subjects with a previous history of shoulder injuries had pre-existing bone loss averaging 10.2%, increasing to an average of 22.8% after the event that occurred during the study period. Based on their findings, the researchers recommend early surgical stabilization of the injured shoulders in young people sustaining a first-time anterior shoulder instability. The team believes this early action will promote better recovery with less risk of future shoulder injury.