

Long Term Effects of Elbow Dislocation

A simple elbow dislocation isn't always so simple. By simple, we mean a dislocated joint that can be set back into its proper place. There's no fracture and surgery isn't needed to relocate the joint. The joint is stable. That's all good. But how's that elbow looking and working years later?

To answer this question, orthopedic surgeons from a trauma unit take a look back at their records and find 110 adults with a simple elbow dislocation. Patients included ranged in age from 15 to 88 years old. All were treated with closed reduction. That's what it's called when the elbow can be put back in place without an incision. The procedure was done while the patients were awake but sedated (relaxed).

The elbow dislocations occurred as a result of falls, assault, car accidents, and sports-related trauma. At the time of the injury after reduction, X-rays were taken to make sure everything was in order. Reduction was followed by immobilization in a splint (for no more than three weeks) and then early range-of-motion and movement.

Patients were advised to avoid certain movements (e.g., supination or a palm up position with the elbow fully extended) during the healing phase. No heavy lifting is allowed -- this guideline is usually in place for six weeks after the injury. Physical Therapy was prescribed if stiffness was a problem.

Everyone in the study filled out a survey of self-reported questions about their pain, physical activities, and level of function. Each patient was re-examined by an orthopedic surgeon to assess motion, strength, stability, blood supply, nerve function, and cosmetic appearance.

They discovered that although most patients were "satisfied" with the results of treatment, they didn't have normal elbow motion or function. Pain and stiffness were the most common symptoms reported. Grip strength was reduced compared to normal. About 20 per cent of the group had to give up participation in sports that they enjoyed before the injury occurred.

Patients who lost elbow flexion (ability to bend the elbow fully) had poorer function. Patients with reduced elbow extension (ability to straighten the elbow all the way) had more pain. In either case, impaired motion was linked with poorer function and less satisfaction with the results.

Is it possible to tell who might develop these problems after a simple elbow dislocation? Actually, yes -- when present, the factors just mentioned (elbow motion, pain, stiffness) predict a poorer outcome.

And there was one other significant predictive factor: female sex. The authors weren't sure why there was a difference in long-term results comparing function between men and women. Surprisingly, the women with poorer outcomes weren't more dissatisfied with their results compared with men.

In summary, simple elbow dislocations can result in some long-term residual symptoms and loss of function in a large percentage of adults. Despite reported pain, stiffness, and instability, affected individuals seem to function without limiting their daily activities. Levels of satisfaction don't seem to fall despite what might be perceived as limitations by the examiners.

The next step in researching this area is to look at the results and responses based on different patient group types. For example, do the results of older adults who experience elbow dislocation from a low-stress impact (fall) differ from younger adults injured in a high-energy traumatic injury? What about manual workers versus office workers? Athletes? Housewives? Are there any significant differences in the

long-term results for these various patient types?

Reference: Raymond E. Anakwe, MBChB, MRCSed, et al. Patient-Reported Outcomes After Simple Dislocation of the Elbow. In *The Journal of Bone and Joint Surgery*. July 6, 2011. Vol. 93-A. No. 13. 1220-1226.