



## Does the Extent of Cubital Tunnel Release Render the Ulnar Nerve Unstable?

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- **Purpose:** The purpose of this study is to reveal whether increasing the extent of decompression results in an increased tendency for subluxation of the ulnar nerve.
- **Methods:** Sixteen cadaveric elbows were examined for nerve instability following in situ ulnar nerve decompression. A release of the ulnar nerve was performed through the cubital tunnel, and extended 7cm distal to a point centered between the medial epicondyle and olecranon. The nerve was then released proximally over a distance of 10 cm in 2 cm increments. Elbows were ranged at each 2 cm interval of release.
- **Results:** A statistically significant trend of instability was noted as the level decompression was advanced proximally ( $p < 0.05$ ). Overall, eight of the sixteen elbows (50%) ultimately displayed instability of the ulnar nerve following in situ decompression. The highest rate of instability occurred at the interval between 4 and 6 cm of release, although this finding was not significantly different from other intervals of release.
- **Conclusion:** Our study reveals that in situ decompression with a considerable proximal release may result in subsequent instability of the ulnar nerve. **We recommend limiting decompression to the cubital tunnel if clinical and electrodiagnostic studies indicate the cubital tunnel is the source of compression.** Further proximal decompression beyond 4 cm might lead to frank instability which could be a source of ongoing nerve symptoms or require additional surgical procedures.

