

Median nerve injury

Injury of [median nerve](#) at different levels causes different syndromes with varying motor and sensory deficits.

Above the elbow

see [High Median Nerve Injury](#)

At the wrist

Common mechanism: Wrist laceration

Motor deficit: Weakness in flexion of radial half of digits and thumb, loss of abduction and opposition of thumb. Presence of an ape hand deformity when the hand is at rest, due to an hyperextension of index finger and thumb, and an adducted thumb.

Presence of benediction sign when attempting to form a fist, due to weakness in flexion of radial half of digits.

Sensory deficit: Loss of sensation in lateral 3 1/2 digits including their nail beds, and the thenar area. Within the wrist: Carpal tunnel syndrome

Common mechanism: Carpal tunnel syndrome, an injury by compression in the carpal tunnel, without transection of the median nerve, due to overuse by activities such as keyboard typing and cooking.

Motor deficit: Weakness in flexion of radial half of digits and thumb, weakness in abduction and opposition of thumb. Absence of an ape hand deformity or when attempting to form a fist, the benediction sign, due to compression of the median nerve, as opposed to complete median nerve palsy.

Sensory deficit: Numbness and tingling in lateral 3 1/2 digits including their nail beds but excluding the thenar eminence which is supplied by the palmar cutaneous branch of the median nerve .

Unlike in wrist laceration, there is no loss of sensation in the area of the central palm, as the palmar cutaneous branch runs above the flexor retinaculum, and is not affected in compression in carpal tunnel syndrome.

Median nerve dissection after brachial artery catheterization revealed by high-resolution ultrasound

Stefanou MI, Schubert V, Ruschil C, Winter N, Schuhmann MU, Ziemann U, Grimm A. Median nerve dissection after brachial artery catheterization revealed by high-resolution ultrasound. Clin Neurophysiol. 2019 Apr 18;130(7):1081-1082. doi: 10.1016/j.clinph.2019.04.007. [Epub ahead of print] PubMed PMID: 31077909.

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