

# Median nerve palsy

To polio n. medianus most often occurs due to injury in the anatomical narrows through which it passes.

## The most common injury to the median nerve

### Median nerve injury in the axilla

The median nerve arises from the union of the *radix medialis and lateralis* from the lateral and medial fasciculus. This connection arises in the axilla, where it can be injured, for example, in case of **dislocation articulation humeri**. **Paralysis of this nerve can also occur in stabbing and gunshot wounds.**

### Median nerve injury on the forearm

N. medianus enters the forearm through the heads of *m. pronator teres* (canalis pronatorius). Here, this nerve can be *pressed* and the first three fingers tingling (ladies with heavy handbags). Here, too, he may be injured and subsequently paralyzed.

In the further course, it sinks between the second and third muscle layers of the flexors. In the distal part of the forearm, the median nerve enters **superficially** and lies just below the superficial fascia between the tendons of the *m. flexor carpi radialis* and *m. palmaris longus*. In this place, he is easily and *most often vulnerable* to even a shallow cut (e.g. when working with a circular saw, a collision with a window pane, a suicide attempt, etc.).

### Median nerve injury in canalis carpi

From the distal part of the forearm, the median nerve then enters the canalis carpi, where it runs under the *lig. carpi transversum*. In this place, this nerve is compressed in **carpal tunnel syndrome**. It can be injured by **fractured wrists** eg Colles' fracture.

## Image of polio

The function of the muscles innervated by the median nerve is disabled.

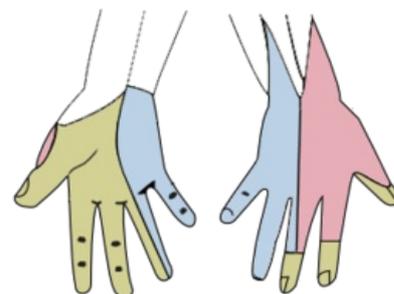
### Manifestations on the forearm

By eliminating *m. pronator teres* there is an *impossibility of pronation* of the forearm. Another difficulty is during the *flexion of the 2nd and 3rd fingers* (removal of the flexors of the fingers). Flexion of the 4th and 5th fingers will be preserved thanks to the innervation exception of *m. flexor digitorum profundus*. Such an image of paralysis is called a *swearing hand* (preacher's hand).

### Manifestations on the hand

Impairment of the muscles of the thumb (*m. opponens pollicis*), which is manifested by the *impossibility of putting the thumb in opposition*, i.e. **monkey hand**. Furthermore, it manifests itself in the impossibility of thumb flexion (flexors of the thumb except for the caput profundum *m. flexoris pollicis brevis*). There is an impossibility of flexion of the distal interphalangeal joint of the index finger (*unable to scratch with the index finger*).

On the hand, *sensitivity disorders* will also appear in the sensitive innervation area of the median nerve (1st-3rd finger and half of the 4th on the volar side, the tips of these fingers on the dorsal side).



Sensitive innervation of the median nerve (yellow)

## Links

### Related Articles

- Canalis carpi syndrome
- Colles' Fracture
- Ulnar nerve palsy
- Radial nerve palsy
- Axillary nerve palsy
- Brachial plexus paresis

## References

- CIHÁK, Radomír. *Anatomy 1*. 3. edition. Grada Publishing, a.s., 2011. 552 pp. vol. 1. ISBN 978-8-247-3817-8.
- PETROVICKY, Paul. *Anatomy with topography and clinical applications I.* 1. edition. Osvěta Publishing House, 2001. 463 pp. vol. 1. ISBN 80-8063-046-1.

## Source

- PASTOR, Jan. *Langenbeck's medical web page* [online]. [cit. 2009]. <<https://langenbeck.webs.com/>>.