

# Radial nerve palsy

The **Nervus radialis** has fibers from the roots of C5–C7 and passes through the isthmus at the sulcus n. radialis, where it can be injured in fractures of the body of the humerus. The vulnerable point of this nerve is the supinator canal, the passage of the *ramus profundus n. radialis* through the musculus supinator. Sends motor fibers for the triceps brachii muscle. It mainly controls the extension of the elbow, wrist and metacarpophalangeal joints.

## Clinical picture

- the so-called *swan neck* - the hand falls into flexion to weaken the extensors
- wrist and finger extension and thumb abduction are limited
- the patient is unable to make an intensive fist
- sensitivity disorders in the innervation area (especially I. and II. metacarpal dorsally)

## Causes

- **lesion in the area of the axilla** - the motor fibers for the triceps brachii muscle are also affected, which leads to a weakening of extension in the elbow (*e.g. compression with high crutches*)
- **lesions in the area of the sulcus n. radialis** - innervation of the triceps is normal, the extensors of the hand and fingers are affected (*e.g. Saturday night palsy - pressure from the edge of a bench or a chair in the axilla area with severe drunk*)
- **fractures humerus** - the need to examine the mobility of the hand; entrapment between fragments may occur, either during injury or during subsequent reduction or surgery
- **supinator tunnel syndrome** - oppression when passing through the muscle. supinator
- **pressure in the area of the wrist**, where it presses closely on the radius - impairment of sensitive innervation (*e.g. tight watch strap, metal handcuffs*)

## Links

### Related Articles

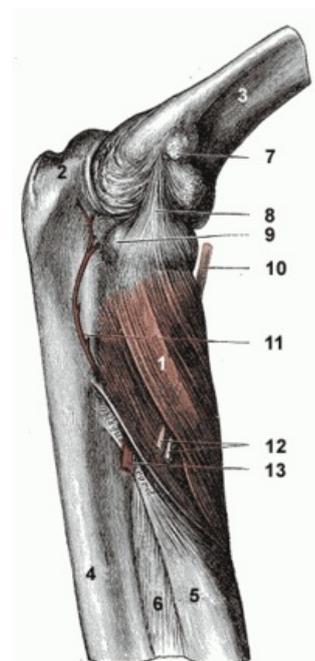
- Peripheral nerve involvement syndromes
- Radial nerve
- Musculus supinator
- Humerus

### Links

- PASTOR, Jan. *Langenbeck's medical web page* [online]. [cit. 2009]. <<https://langenbeck.webs.com/>>.
- AMBLER, Zdeněk - BEDNAŘÍK, Josef, et al. *Klinická neurologie : část speciální. II. 1.* edition. Praha : Triton, 2010. ISBN 978-80-7387-389-9.



Typical position of the upper limb in radial nerve palsy



1) musculus supinator  
10) and 12) deep branch of n. radialis