

# Topographic formations of the upper limb

Topographical areas include places and openings through which important nerves, blood vessels and veins pass. For each area, it is important to know the boundaries and structures that we find there.

## Structures of the shoulder girdle

### Scapular notch

It is bounded caudally by the scapular notch, cranially by the superior transverse scapular ligament. Only the suprascapular nerve passes through this formation. **Attention! suprascapular vessels runs above the ligament and does not belong to this topographical area.** ⚠️

### Spinoglenoid notch

The medial boundary consists of the spine of the scapula, the lateral glenoid cavity and dorsally, inferior transverse scapular ligament.

Here we can find the suprascapular nerve and suprascapular vessels.

### Omotricipital foramen

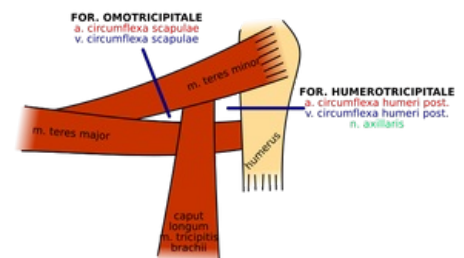
The omotricipital foramen is bordered proximally by the teres minor muscle, distally by the teres major muscle and laterally by the long head of the triceps brachii muscle.

The circumflex scapular artery passes through it together with the circumflex scapular vein.

### Humerotricipital foramen

The humerotricipital foramen is a shape lying lateral to the omotricipital foramen. It is bounded laterally by the humerus, proximally by the teres minor muscle, distally by the teres major muscle and medially by the long head of the triceps brachii muscle.

There is present in the foramen the axillary nerve and the posterior circumflex humeral artery.



Omotricipital foramen + humerotricipital foramen

### Clavipectoral triangle

The clavipectoral triangle is bordered laterally by the deltoid muscle, medially by the pectoralis major muscle, and cranially by the clavicle. The entire space is covered by the clavipectoral fascia. The thoracoacromial artery reaches the surface through this space and the cephalic vein passes in the opposite direction. Furthermore, the medial and lateral pectoral nerves are located here.

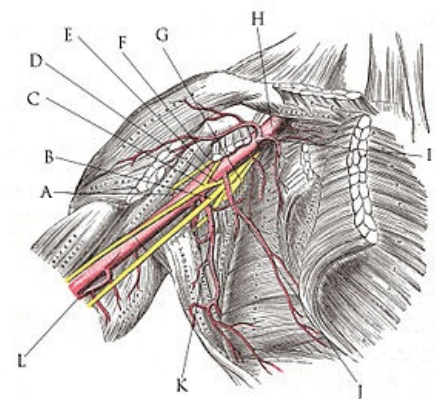
### Infraclavicular oval fossa

Passage through the clavipectoral fascia. Passing through this to the surface is the thoracoacromial artery and to the depth is the cephalic vein.

### Axillary fossa

To simplify, the axilla can be imagined as a four-sided pyramid. The axilla is bounded cranially by the shoulder joint, ventrally by the pectoral muscles, dorsally by the latissimus dorsi and teres major muscles, medially by the chest wall with the serratus anterior muscle and laterally by the humerus and its muscles.

The axillary artery and its branches pass through it. Ventromedial to the artery is the axillary vein, into which the cephalic vein flows. Within the nerve supply there is the brachial plexus.



Brachial plexus

## Structures of the free limb

### Medial bicipital groove

The medial bicipital groove (*sulcus bicipitalis medialis*) is a superficial groove between the ventral and dorsal groups of the medial muscles of the humerus.

transverse section through the carpal tunnel

Ulnar canal is the passage between the pisiform bone and the hamulus of the hamate bone. Palmaris brevis muscle borders palmarly, muscular flexor retinaculum dorsally. The Ulnar nerve and ulnar vessels pass here.

## Guiot's canal

The transverse head of the adductor pollicis muscle is bordering palmarly , first dorsal interosseus muscle dorsally. Deep branch of the radial artery thus enters between the muscles of the palm and subsequently forms the deep palmar arch.

## Links

### Related Articles

- Brachial plexus
- Axillary nerve
- Median nerve
- Carpal tunnel
- Topographic anatomy of the hand and fingers

### References

- GRIM, Miloš – DRUGA, Rastislav. *Základy anatomie : 5. Anatomie krajín těla*. 1. edition. Galén, 2008. 119 pp. ISBN 978-80-7262-179-8.