

Arteries of the Upper Limb

Arteries

Axillary artery

 For more information see Axillary Artery.

The **Arteria axillaris** is a continuation of the *arteria subclavia* from the lateral edge of the 1st rib. Next, the axilla runs to the inside of the *collum chirurgicum humeri*. From there it continues as *arteria brachialis*.

It supplies the muscles bordering the fossa axillaris, *m. infraspinatus*, *m. deltoideus*, parts of the first two intercostals, shoulder joint, skin and part of the mammary gland.^[1]

Brachial artery

 For more information see Brachial Artery.

The **Arteria brachialis** is a continuation of the *a. axillaris* from the *collum chirurgicum humeri*. It takes place in the anterior osteofacial space of the arm in the *sulcus bicipitalis medialis*.

It gives off a strong branch of the *a. profunda brachii*, which accompanies the *n. radialis* in the *sulcus nervi radialis*, between the heads of the *m. triceps brachii*. It also gives off the **arteria collateralis ulnaris superior** and **inferior**.

On the front side of the ulnar region in the *fossa cubitalis* at the level of the *collum radii* it divides into *a. radialis* and *a. ulnaris*. Supplies the arm and elbow joint^[2]

Radial artery

 For more information see Radial artery.

The **Arteria radialis** descends from the division of the *a. brachialis* in the elbow region on the radial side. Her pulse is palpable on the wrist between the *brachioradialis* and *flexor carpi radialis*.^[1] We find it in the *foveola radialis*. After crossing the carpus, it runs to the dorsal part of the hand, where between the heads of the *m. interosseus dorsalis primus* it enters the Guyot's space and creates a **arcus palmaris profundus**.^[3]

Gives off the **r. palmaris superficialis** contributing to the **arcus palmaris superficialis**, the branches for the *rete carpi palmare* and the *dorsale* and the **a. princeps pollicis**. It supplies the muscles of the anterior and lateral groups and the skin of the lateral half of the forearm. It is involved in supplying the palm, back of the hand and fingers.^[1]

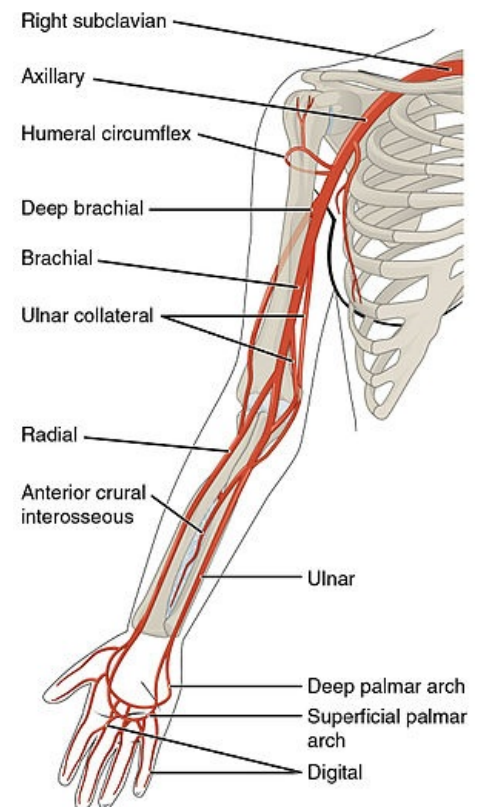
Ulnar artery

 For more information see Ulnar Artery.

Arteria ulnaris descends from the division of the *a. brachialis* under the *caput commune ulnare* between the *m. flexor carpi ulnaris* and *m. flexor digitorum superficialis*.

It gives off *a. interossea communis*, which subsequently divides into *a. interossea anterior*, posterior and *a. commitans nervi mediani* (during the development of the main artery of the limb).^[1] It also sends branches for the *rete carpi palmare* and *dorsale*, passing through the *canalis ulnaris* (Guyon's canal)^[3], issues **r. palmaris profundus** into **arcus palmaris profundus** and creates **arcus palmaris superficialis**.

It supplies the muscles of the anterior and dorsal groups, the *m. supinator*, the palm, the back of the hand and fingers, the skin in the medial half of the forearm.^[1]



Arteries of the upper limb

Veins

Superficial veins

Superficial veins pass from the fingers and palm to the back of the hand. It arises from the *rete venosum dorsale manus* on the back of the hand and the *rete carpi dorsale* in the area of the wrist. From the rete venosum dorsale manus arise **v. cephalica** and **v. basilica**, which are used in the place of the cubital fossa for preferential collection of venous blood for laboratory examination.^[1]

V. cephalica

The **Vena cephalica** passes to the lateral side of the forearm and after the fascia continues to the elbow region, along the anterolateral side of the arm and in the *fossa ovalis infraclavicularis (Mohrenheimi)* in the trigonum clavipectorale it enters the axilla and flows into the v. axillaris.^[3]

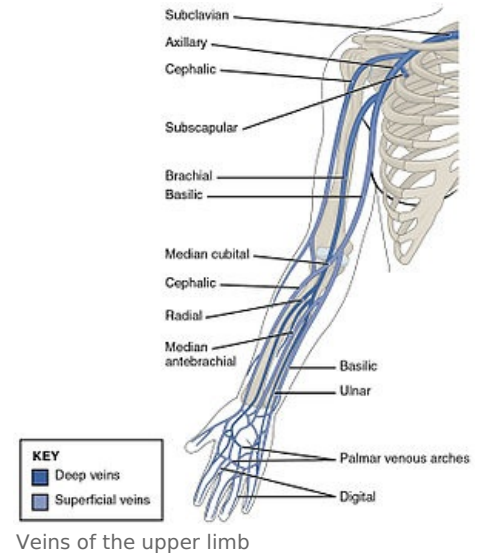
V. basilica

The **vena basilica** passes to the medial side of the forearm, in the lower half of the arm under the superficial fascia through the *hiatus basilicus* and flows into the *vena brachialis*.^[1]

Deep veins

The deep veins are accompanied by the arteries of the same name (up to the axillaris vein, the veins are doubled^[3]).

- vv. digitales palmares and vv. metacarpales dorsales
- vv. radiales
- vv. ulnares
- vv. brachiales



Links

Related Articles

- Vessels
- Lymphatic drainage of limbs

References

1. ČIHÁK, Radomír. *Anatomy 3*. 2. edition. Grada Publishing, 2004. 692 pp. ISBN 978-80-247-1132-4.
2. STANDRING, Susan. *Gray's Anatomy : The Anatomical Basis of Clinical Practice*. 39. edition. London : Elsevier Ltd, 2005. ISBN 0-443-07168-3.
3. GIRL, Martin. *Limb Anatomy for Winter Autopsy [electronic resource] : (non-saleable script for first-year students of the 3rd LF UK)*. 1. edition. Charles University, 3rd Faculty of Medicine, 2009. ISBN 978-80-254-3223-5.