

An **Anatomy in Clay®** Workbook
*Major Arteries of the Human
Arm Diagramed in Three-Dimensions*



The StepByStep™ Series
Learning Activities

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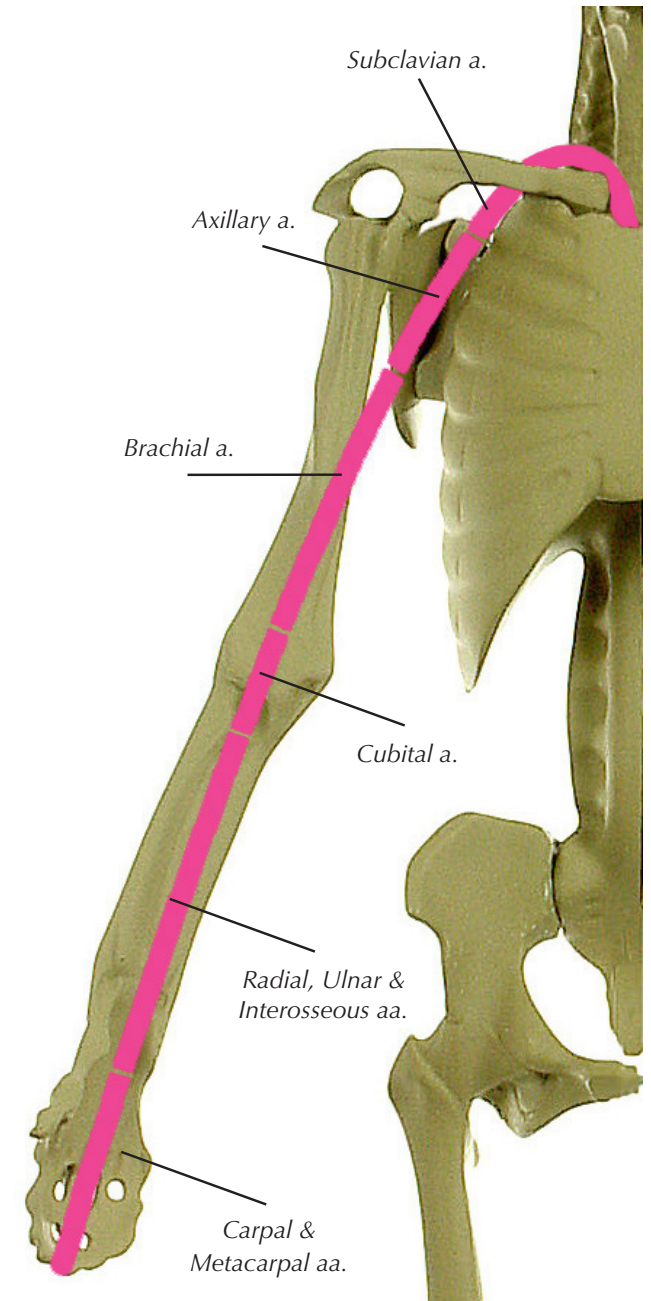
Blood Vessel Terms

The naming of blood vessels comes from a tradition of examining the body one part at a time, like a surgeon or a dissector might. Unlike the names of muscles, bones, and nerves, which refer to different structures, the names of the blood vessels come from specifying parts of a single tube by “convention.”

In this workbook, we make “maps” only of the main arteries. As an example, shown here, an artery runs from the heart, proximally, to its distal extremity.

Depending on the part of the body being traversed, it changes names. The use of that convention often suggests that it is a separate vessel. That can create an unnecessary confusion unless you are assigning it to regional anatomy the way a surgeon might, studying that region in isolation.

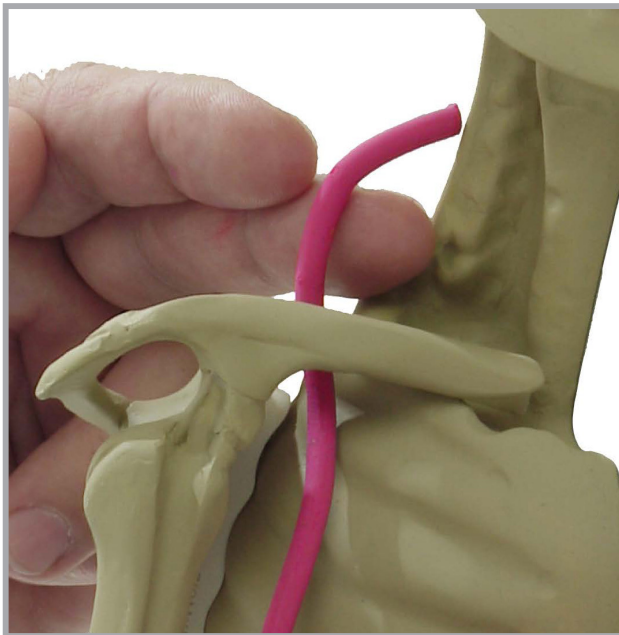
As the tube passes under the clavicle, it is called the “subclavian” artery or vein. As it continues through the armpit, its name changes to the “axillary” artery. Continuing down along the humerus, or “brachium,” it is called the “brachial” artery. When crossing the “inside” of the elbow it is called the “cubital” artery.





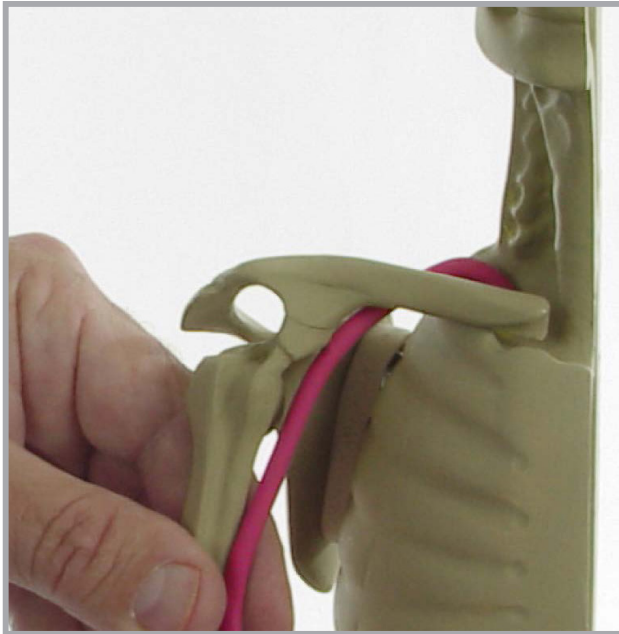
1 *Subclavian a.*

Press the end of a tube into the thoracic inlet (over the 1st rib) to appear to branch off of the *brachiocephalic* arch before becoming *subclavian*.



2 *Subclavian a.*

Past the clavicle to the inferior scapular angle, this tube is named the *axillary a.*



3 *Axillary a.*

Past the clavicle to the inferior scapular angle, this tube is named the *axillary a.*



4 *Brachial a.*

Continue laterally to the humerus (brachium) inclining along the ventral humerus to the mid-cubital fossa.



5 *Cubital a.*

At the center of the joint capsule of the elbow, the vessel is renamed the *cubital a.*



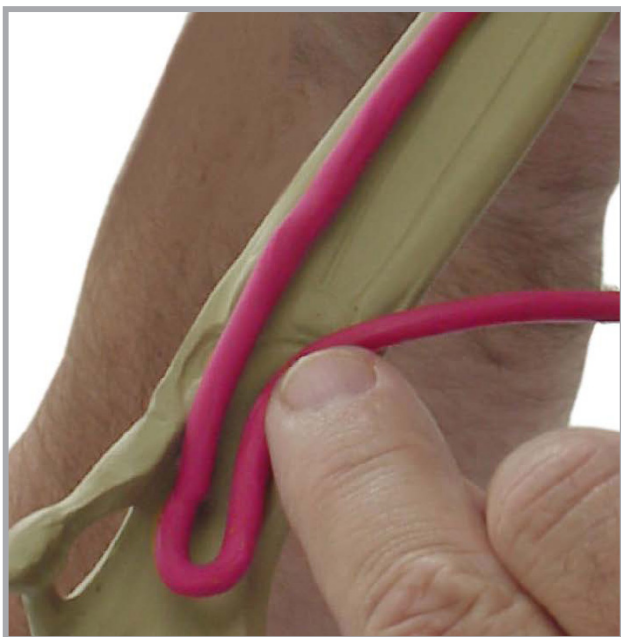
6 *Radial & Ulnar aa.*

Form a loop of clay long enough for the loop to fall into the carpometacarpal palm of the hand.



7 *Radial a.*

Attach one end of the loop to the cubital junction, then arch the tube along the radius as the *radial a.*



8 *Superficial palmar arch*

Loop the superficial *palmar arch a.* portion of the tube into the palm of the hand.



9 *Ulnar a.*

Press the free end of the loop back up along the ventral ulna until the loop reconnects at the junction of the *radial a.* and the *cubital a.*



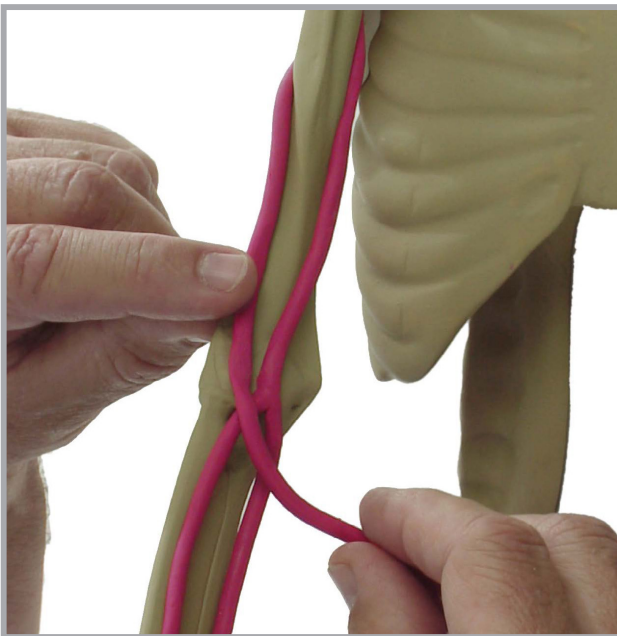
10 *Brachial profunda a.*

Join another tube to the dorsal surface of the *axillary a.*



11 *Brachial profunda a.*

Lay the free end diagonally along the dorsal humerus (brachium) as the *brachial profunda a.*



12 *Brachial profunda a.*

Join another tube to the dorsal surface of the *axillary a.*



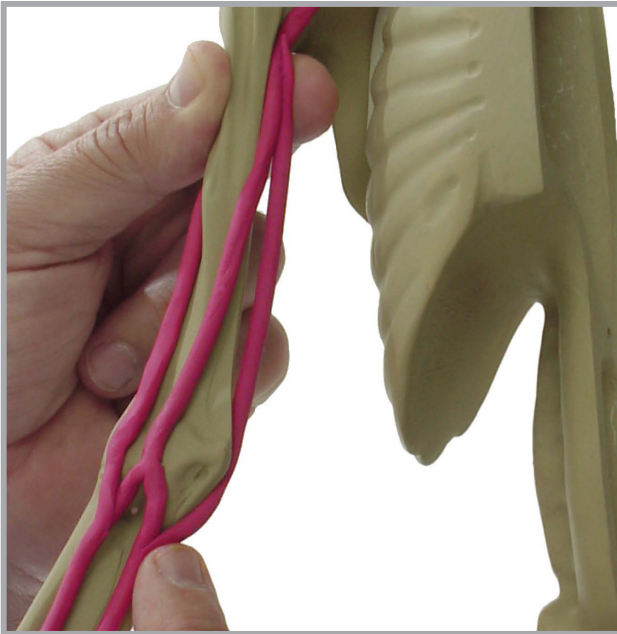
13 *Ulnar a.*

Press the free end of the loop back up along the ventral ulna until the loop reconnects at the junction of *radial a.* and the *cubital a.*



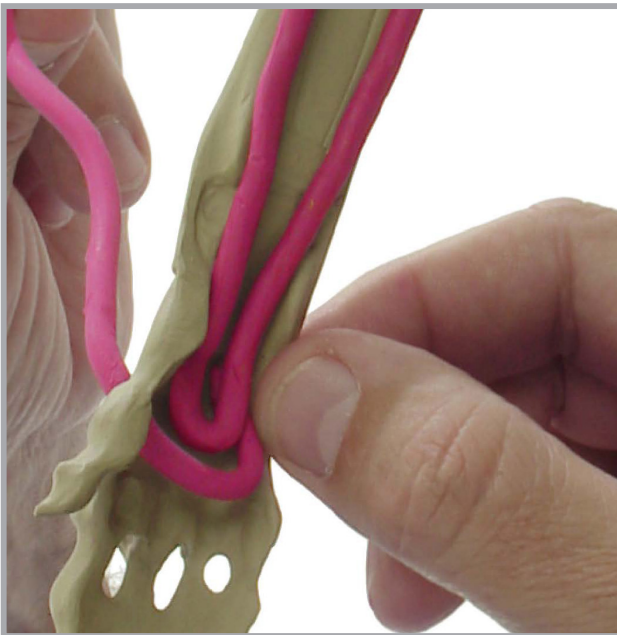
14 *Ulnar collateral a.*

Just past the *profunda brachial a.*, another tube branches off the *axillary a.* as the *superior ulnar collateral a.*



15 *Ulnar recurrent aa.*

The *superior ulnar collateral a.* runs behind humeral epicondyle, and then winds ventrally to the *ulnar recurrent a.*



16 *Deep Palmar arch a*

Branching off the *ulnar a.* (under the superficial palmar arch) as the deep arch. Loop the free end between the bases of the metacarpi pollux and index rays.



17 *Deep Palmar arch a.*

Acting as a dorsal continuation of the *radial a.*, the *deep palmar arch a.* rejoins the main *radial a.* just above the wrist.



18 *Dorsal carpal ulnar arch a.*

Just proximal to the wrist, create a branch starting at the *ulnar a.*



19 *Dorsal arch a.*

Winds this around the 5th metacarpal across the dorsal hand....



20 *Dorsal carpal radial a.*

...to become recurrent with the deep palmar arch near its recurrent junction with the *radial a.*



21 *Palmar aa.*

From the superficial palmar arch, form three *common palmar arteries* to run in the spaces between the metacarpals.



22 *Digital aa.*

Each common palmar a. forks into two branches of the margins of adjacent fingers.



23 *Common interosseus a.*

A short branch off the *proximal ulnar a.* is the common *interosseus a.*



24 *Anterior interosseus a.*

Press the short leg into the hiatus (the hole in the proximal interosseus membrane). The longer anterior interosseus branch passes down the medial forearm and the interosseus membrane.



25 *Posterior interosseus a.*

Upon passing through the hiatus from ventral to dorsal forearm, the *posterior interosseus a.* lies along the dorsal median, down the interosseus membrane.



26 *Posterior interosseus a.*

Press it along the length of the interosseus membrane to the radio-carpal joint...



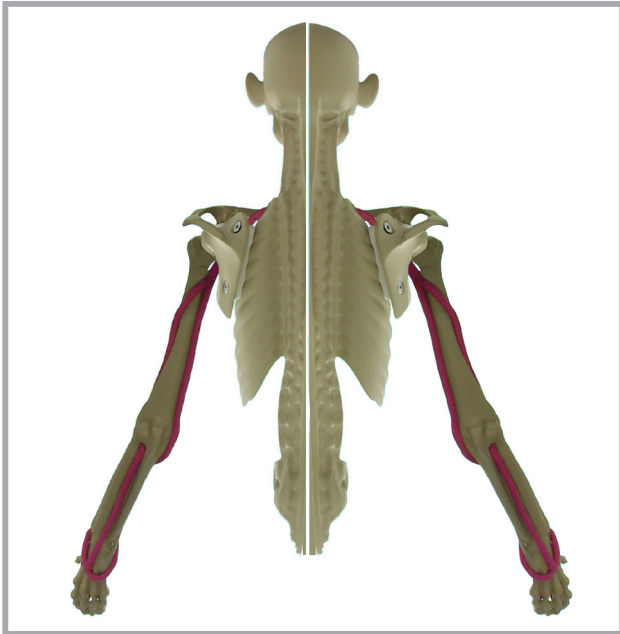
27 *Posterior interosseus a.*

...and just past the wrist, this artery reconnects—becomes recurrent—with the *dorsal arch a.*



28

*Major Ventral (Anterior)
Pectoral Arteries*



29

*Major Dorsal (Posterior)
Pectoral Arteries*



30

*Major DorsoVentral
Pectoral Arteries*