



Arterial tree

In anatomy, **arterial tree** is used to refer to all arteries and/or the branching pattern of the arteries. This article regards the human arterial tree. Starting from the aorta:

the following are the parts

Ascending aorta

It is a portion of the **aorta** commencing at the upper part of the base of the left ventricle, on a level with the lower border of the third costal cartilage behind the left half of the sternum.

Right coronary artery

- posterior interventricular artery (mostly)
- SA nodal artery (in 60%)
- Right marginal artery

Left coronary artery

- anterior interventricular
 - septal
 - diagonal
- circumflex
 - SA nodal artery (in 40%)
 - posterior interventricular artery (occasionally)
 - Left marginal arteries
 - posterolateral artery
- ramus intermedius (sometimes)

Aortic arch

brachiocephalic artery

- right common carotid artery

- right subclavian artery

left common carotid artery (directly from arch of aorta on left mostly)

internal carotid artery

- ophthalmic artery
 - Orbital group
 - Lacrimal artery
 - lateral palpebral arteries
 - zygomatic branches
 - recurrent branch
 - Supraorbital artery
 - superficial branch
 - deep branch
 - Posterior ethmoidal artery
 - meningeal branch
 - nasal branches
 - Anterior ethmoidal artery
 - anterior meningeal artery
 - nasal branches
 - superior palpebral arch
 - inferior palpebral arch
 - Supratrochlear artery
 - Dorsal nasal artery
 - twig to the upper part of lacrimal sac
 - to root of nose
 - dorsum of the nose
 - Ocular group
 - Long posterior ciliary arteries
 - Circulus arteriosus major
 - Circulus arteriosus minor
 - Short posterior ciliary arteries
 - Anterior ciliary artery
 - Central retinal artery
 - Muscular artery
 - anterior cerebral artery
 - middle cerebral artery
 - anterolateral central arteries
 - internal striate

- external striate
- posterior communicating artery

external carotid artery

- Arising in carotid triangle^[1]
 - Superior thyroid artery
 - Hyoid (infrahyoid) artery
 - Sternocleidomastoid artery
 - Superior laryngeal artery
 - Cricothyroid artery
 - Ascending pharyngeal artery
 - Lingual artery
 - Facial artery
 - cervical
 - Ascending palatine artery
 - Tonsillar branch
 - Submental artery
 - superficial branch
 - deep branch
 - Glandular branches
 - facial
 - Inferior labial artery
 - Superior labial artery
 - Lateral nasal branch
 - Angular artery - the terminal branch
 - Occipital artery
 - Posterior auricular artery
 - Terminal branches
 - Maxillary artery
 - First portion
 - Deep auricular artery
 - Anterior tympanic artery
 - Middle meningeal artery
 - anterior and posterior
 - ophthalmic artery (very rarely)
 - superior tympanic artery
 - vessels to semilunar ganglion
 - superficial petrosal branch
 - Orbital branches

- Temporal branches
- Inferior alveolar artery
 - incisor branch
 - mental branch
 - lingual branch
 - mylohyoid branch
- Accessory meningeal artery
- Second portion
 - Masseteric artery
 - Pterygoid branches
 - Deep temporal arteries (anterior and posterior)
 - Buccal artery
- Third portion
 - Sphenopalatine artery, terminal branch
 - posterior lateral nasal branches
 - posterior septal branches
 - Descending palatine artery
 - greater palatine artery
 - lesser palatine arteries
 - Infraorbital artery
 - orbital branches
 - anterior superior alveolar arteries
 - Posterior superior alveolar artery
 - branches to alveolar canals
 - branches to gingiva
 - Pharyngeal artery
 - Artery of pterygoid canal
- Superficial temporal artery
 - Transverse facial artery
 - Middle temporal artery
 - Anterior auricular branch
 - frontal branch
 - parietal branch

Left subclavian artery (directly from arch of aorta on left)

vertebral artery

- Meningeal branches of vertebral artery
- Posterior spinal artery
 - ascending branch

- descending branch
- Anterior spinal artery
- Posterior inferior cerebellar artery
 - medial branch
 - lateral branch
- Basilar artery
 - Anterior inferior cerebellar artery
 - labyrinthine artery
 - pontine branches

internal thoracic artery

- Mediastinal branches
- Thymic branches
- Pericardiophrenic artery
- Sternal branches
- Perforating branches
- six anterior intercostal branches
 - upper branches
 - lower branches of the space anastomoses
- Musculophrenic artery
 - intercostal branches (three)
 - branches to lower part of the pericardium
 - branches to diaphragm
 - branches to abdominal muscles
- Superior epigastric artery

thyrocervical trunk

- inferior thyroid artery
- suprascapular artery
- transverse cervical artery
 - Superficial branch
 - Deep branch/Dorsal scapular artery (sometimes)

costocervical trunk

- Deep cervical artery
- Supreme intercostal artery

- 1st and 2nd posterior intercostal artery

Axillary artery

- Superior thoracic artery
- Thoracoacromial artery
 - acromial
 - pectoral
 - clavicular
 - deltoid
- Lateral thoracic artery
- Subscapular artery
- Anterior humeral circumflex artery
- Posterior humeral circumflex artery

Brachial artery

- Profunda brachii artery
 - radial collateral artery
 - medial collateral artery
 - branches to the deltoid muscle
- Superior ulnar collateral artery
 - Posterior ulnar recurrent artery
- Inferior ulnar collateral artery
 - Ascending branches
 - Descending branches
- radial artery
 - radial branches in the forearm
 - Radial recurrent artery
 - Palmar carpal branch of radial artery
 - Superficial palmar branch of the radial artery
 - radial branches at the wrist
 - Dorsal carpal branch of radial artery
 - First dorsal metacarpal artery
 - radial branches in the hand
 - Princeps pollicis artery
 - Radialis indicis
 - Deep palmar arch
- ulnar artery
 - anterior ulnar recurrent artery
 - posterior ulnar recurrent artery
 - common interosseous artery
 - posterior interosseous artery

- interosseous recurrent artery
- anterior interosseous artery
 - muscular branches
 - nutrient arteries of radius and ulna
 - branch to volar carpal network
- muscular artery
- volar carpal
- palmar carpal arch
- dorsal carpal
- dorsal carpal arch
- deep volar
- superficial volar arch

Thoracic aorta

- bronchial arteries
- esophageal arteries
- mediastinal branches
- Lower 9(3rd to 11th) posterior intercostal arteries
- subcostal arteries
- superior phrenic arteries

Abdominal aorta

inferior phrenic

celiac

- left gastric artery
 - hepatic branch
 - oesophageal branch
- common hepatic artery
 - proper hepatic artery
 - Terminal branches
 - right hepatic artery
 - Cystic artery
 - left hepatic artery
 - right gastric artery
- gastroduodenal artery
 - right gastro-omental artery
 - superior pancreaticoduodenal artery

- splenic artery
 - dorsal pancreatic artery
 - short gastric arteries
 - left gastro-omental artery
 - Bühler's anastomotic artery

superior mesenteric

- inferior pancreaticoduodenal artery
- middle colic artery
- right colic artery
- intestinal arteries
- ileocolic artery

middle suprarenal

renal

Anterior and posterior

interlobar artery

- arcuate artery
 - interlobular artery
 - afferent arteriole
 - efferent arteriole
 - descending vasa recta
 - peritubular capillaries

gonadal

- testicular artery in males
- ovarian artery in females

lumbar

inferior mesenteric

- left colic artery
 - ascending branch
 - descending branch

- sigmoid arteries
- superior rectal artery

median sacral

common iliac

Common iliac arteries

Internal iliac artery

Anterior division

- obturator artery
- superior vesical artery
- Vaginal artery (females) / inferior vesical artery (males)
- middle rectal artery
- internal pudendal artery
 - inferior rectal artery
 - perineal artery
 - posterior scrotal branches in males/posterior labial branches in females
 - urethral artery
 - artery of bulb of penis in males / artery of bulb of vestibule in females
 - dorsal artery of penis in males / dorsal artery of clitoris in females
 - deep artery of penis in males / deep artery of clitoris in females
- inferior gluteal artery
 - Accompanying artery of ischiadic nerve
- Uterine artery (females) / deferential artery (males)
 - Vaginal artery (sometimes)
- (obliterated) umbilical artery

Posterior division

- iliolumbar artery
 - Lumbar branch
 - Iliac branch
- lateral sacral artery
 - Superior
 - Inferior
- superior gluteal artery
 - Superficial branch

- Deep branch

external iliac artery

- Inferior epigastric artery
- Deep circumflex iliac artery
- femoral artery
 - superficial epigastric artery
 - Superficial circumflex iliac artery
 - Superficial external pudendal artery
 - Deep external pudendal artery
 - Deep femoral artery
 - Lateral femoral circumflex artery
 - ascending branch
 - descending branch
 - transverse branch
 - Medial femoral circumflex artery
 - ascending branch
 - descending branch
 - superficial branch
 - deep branch
 - acetabular branch
 - Perforating arteries
 - first perforating artery
 - second perforating artery
 - third/fourth perforating artery
 - Descending genicular artery
 - Saphenous branch
 - Musculo-articular branch

Popliteal artery

- anterior tibial artery
 - post. tibial recurrent artery
 - ant. tibial recurrent artery
 - muscular branches
 - anterior medial malleolar artery
 - anterior lateral malleolar artery
 - Dorsalis pedis artery
- posterior tibial artery
 - fibular artery (sometimes from popliteal artery)

- communicating branch to the anterior tibial artery
 - perforating branch to the posterior tibial artery
- medial plantar artery
- lateral plantar artery
- sural artery
- medial superior genicular artery
 - Branch to vastus medialis
 - Branch to surface of the femur and the knee-joint
- lateral superior genicular artery
 - superficial branch
 - deep branch
- middle genicular artery
- medial inferior genicular artery
 - branch to popliteus
- lateral inferior genicular artery

See also

- Family tree of major arteries

References

1. "Human Anatomy - Lab 25 Step 12" (<https://web.archive.org/web/20160317160435/http://ect.downstate.edu/courseware/haonline/labs/L25/120100.htm>). Archived from the original (<http://ect.downstate.edu/courseware/haonline/labs/L25/120100.htm>) on 2016-03-17. Retrieved 2007-10-18.

Retrieved from "https://en.wikipedia.org/w/index.php?title=Arterial_tree&oldid=1220618018"

▪