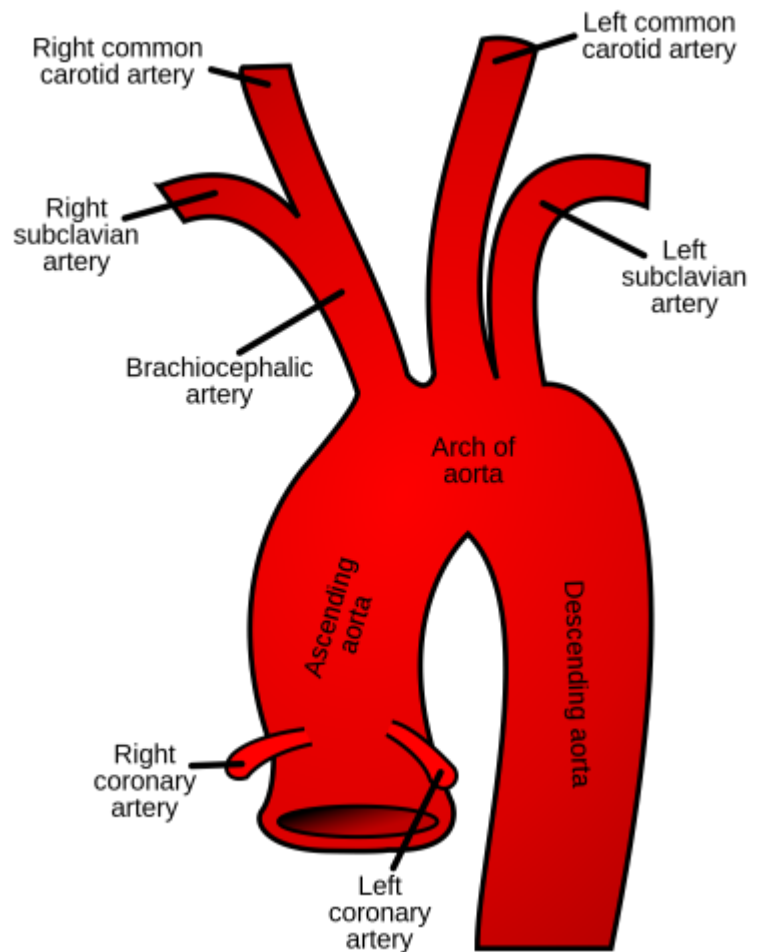


Common carotid artery



The common carotid artery is a major blood vessel located in the [neck](#) that supplies oxygenated blood to the head and neck regions. It arises from the [aortic arch](#) (on the left side) or the [brachiocephalic trunk](#) (on the right side) and ascends vertically in the neck.

At the level of the superior border of the thyroid cartilage, the common carotid artery divides into two branches: the [internal carotid artery](#) and the [external carotid artery](#). The internal carotid artery continues upward to supply blood to the brain, while the external carotid artery branches out to provide blood to the face, scalp, and neck.

The left common carotid artery can be thought of as having two parts: a thoracic (chest) part and a cervical (neck) part. The right common carotid originates in or close to the neck, so contains a small thoracic portion. There are studies in the bioengineering literature that have looked into characterizing the geometric structure of the common carotid artery from both qualitative and mathematical (quantitative) standpoints.

The average diameter of the common carotid for adult males and females is 6.5 mm and 6.1 mm respectively.

Divisions

The bifurcation into the external and internal carotid arteries occurs at the upper border of the thyroid cartilage, at around the level of the fourth [cervical vertebra \(C4.\)](#)

External carotid artery

[External carotid artery.](#)

Internal carotid artery

[Internal carotid artery.](#)

[Triolein](#) emulsion infusion into the [carotid artery](#) has been reported to induce temporary and reversible opening of the [blood-brain barrier](#) by increasing vascular permeability.

Atherosclerotic carotid artery disease

[Atherosclerotic carotid artery disease.](#)

Common carotid artery ostium

The [common carotid artery ostium](#) refers to the opening or entrance of the common carotid artery into the circulatory system.

The common carotid artery ostium refers specifically to the point where the common carotid artery originates or begins. It is the entry point for [blood flow](#) into the carotid artery system. Understanding the location and structure of the common carotid artery ostium is essential in medical procedures such as carotid [angiography](#) or when assessing and treating conditions affecting the carotid arteries, such as carotid artery stenosis or aneurysms.

Common carotid artery stenting

[Common carotid artery stenting.](#)

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