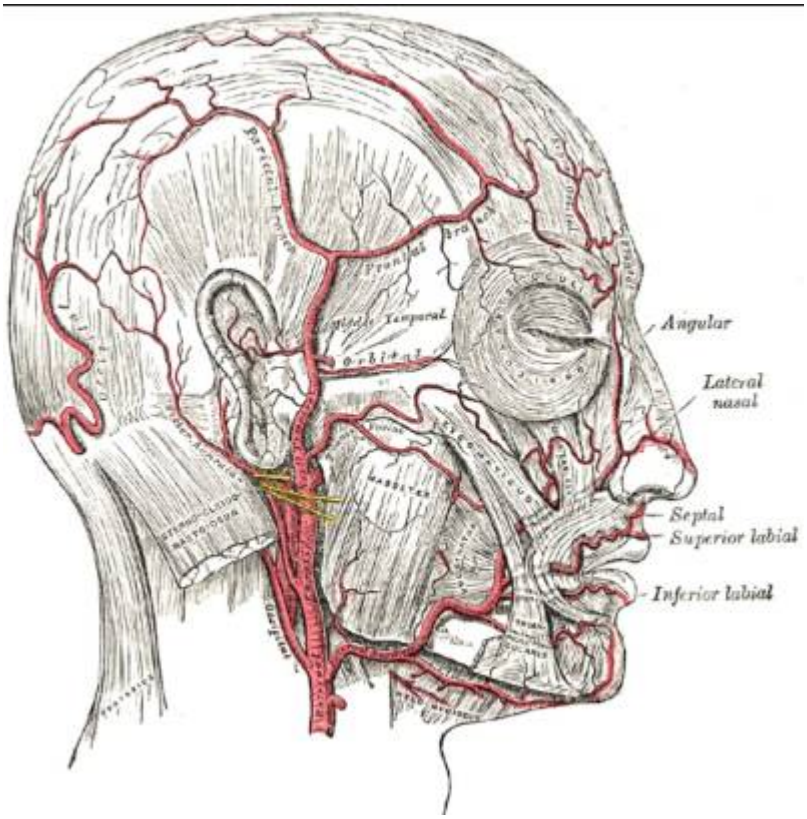
Superficial temporal artery



- Analysis of risk factors for the occurrence of rebleeding following surgery for haemorrhagic moyamoya disease
- Progressive thrombosis and involution of a pediatric giant middle cerebral artery pseudoaneurysm following superficial temporal artery-to-middle cerebral artery bypass: illustrative case
- Endoscopic Transorbital Extended Middle Fossa Approach: A Potential Addition to the Lateral Skull Base Surgical Armamentarium-Anatomic Feasibility Study
- Intraorbital arteriovenous fistulas: illustrative case
- Indirect surgical revascularization for management of vascular steal phenomenon in high-grade untreatable brain arteriovenous malformations
- Pseudoaneurysm development in extracranial-intracranial bypass surgery: Diagnostic challenges and surgical solutions
- Diagnosis and Management Guidelines for Moyamoya Disease
- Direct Bypass for Moyamoya Disease

Major artery of the head. It arises from the external carotid artery when it bifurcates into the superficial temporal artery and maxillary artery.

Its pulse is palpable superior to the zygomatic arch, anterior, and superior to the tragus.

The STA coursed over the zygomatic arch or over the condylar process of the mandible in all cases (25/25 pts, 100 %). The STA courses over the posterior zygomatic arch in 23/25 pts (92 %), creating a characteristic “C” shape half-buttonhole configuration as it embraces the arch. When the STA travels posterior to the zygomatic arch, there is no C shape configuration (2/25 pts, 8 %). The STA bifurcates distal to the zygomatic arch in 24/25 pts (96 %).

The “C” shape half-buttonhole configuration is a useful identifying characteristic of the most common course of the STA-over the posterior zygomatic arch before it bifurcates [1].

Branches

The superficial temporal artery is the smaller of two terminal branches that bifurcate superiorly from the external carotid. Based on its direction, the superficial temporal artery appears to be a continuation of the external carotid.

It begins in the substance of the parotid gland, behind the neck of the mandible, and passes superficially over the posterior root of the zygomatic process of the temporal bone; about 5 cm. above this process it divides into two branches, a frontal and a parietal.

As it crosses the zygomatic process, it is covered by the Auricularis anterior muscle, and by a dense fascia; it is crossed by the temporal and zygomatic branches of the facial nerve and one or two veins, and is accompanied by the auriculotemporal nerve, which lies immediately behind it.

Superficial temporal artery frontal branch

Superficial temporal artery parietal branch

Clinical relevance

see Superficial temporal artery graft.

Anastomoses

The superficial temporal artery anastomoses with (among others) the supraorbital artery of the internal carotid artery.

see Superficial temporal artery to superior cerebellar artery bypass.

Superficial temporal artery pseudoaneurysm

Superficial temporal artery pseudoaneurysm.

Superficial Temporal Artery Middle Cerebral Artery Bypass

Superficial temporal artery to middle cerebral artery bypass

1)
Cobb MI, Galvin L, Gonzalez LF. Superficial temporal artery: the “C” shape half-buttonhole configuration as it courses over the zygomatic arch. Surg Radiol Anat. 2015 Aug 12. [Epub ahead of print] PubMed PMID: 26264582.