

Pharyngeal arches

Summary of the derivations of the different arches

Arch #	Vascular Component	Cranial Nerve Innervation	Myogenic Derivatives	Neural Crest Cartilage Derivatives
I	Small remnant persists to become the maxillary artery	Trigeminal nerve (CN V ₂ → primarily V ₃)	Muscles of mastication, tensor tympani, mylohyoid, anterior digastric	Malleus, incus, sphenomandibular ligament
II	Largely regresses; gives off the stapedia and hyoid arteries	Facial nerve (CN VII)	Muscles of facial expression, stapedius, stylohyoid, posterior digastric	Stapes, styloid process, stylohyoid ligament, lesser horn and upper body of hyoid
III	Forms the common carotid and proximal internal carotid arteries	Glossopharyngeal nerve (CN IX)	Stylopharyngeus	Greater horn and lower body of hyoid
IV	Left → part of the aortic arch; Right → proximal right subclavian artery	Vagus nerve (CN X), superior laryngeal branch	Pharyngeal constrictors, levator veli palatini, cricothyroid	Thyroid, cricoid, arytenoid, corniculate, cuneiform cartilages
V	Mostly obliterates; at best a vestigial capillary plexus	–	–	–
VI	Right & left pulmonary arteries; left ductus arteriosus	Vagus nerve (CN X), recurrent laryngeal branch	Intrinsic laryngeal muscles (except cricothyroid)	Arytenoid, corniculate, cuneiform laryngeal cartilages