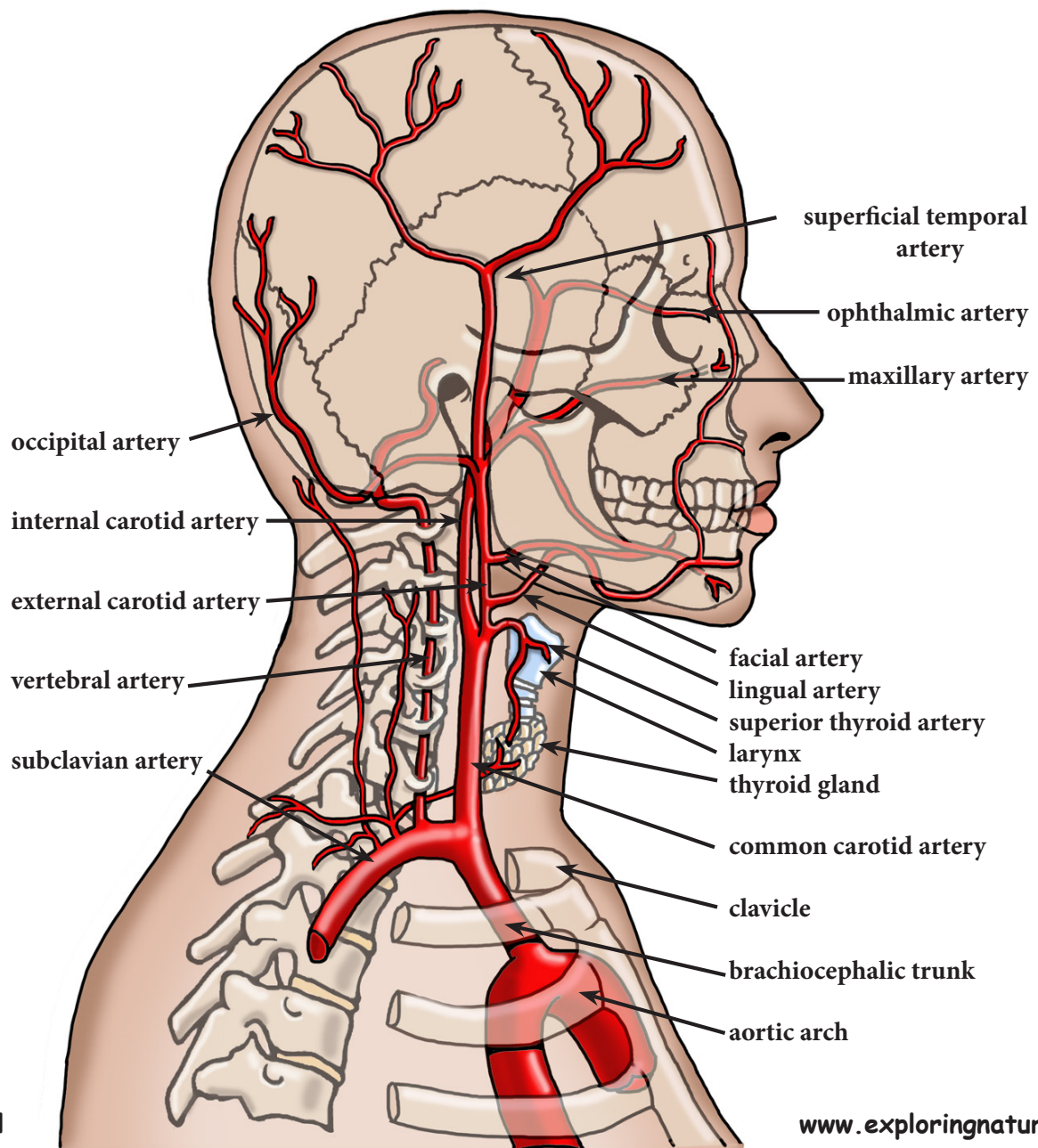


Arteries of the Head and Neck

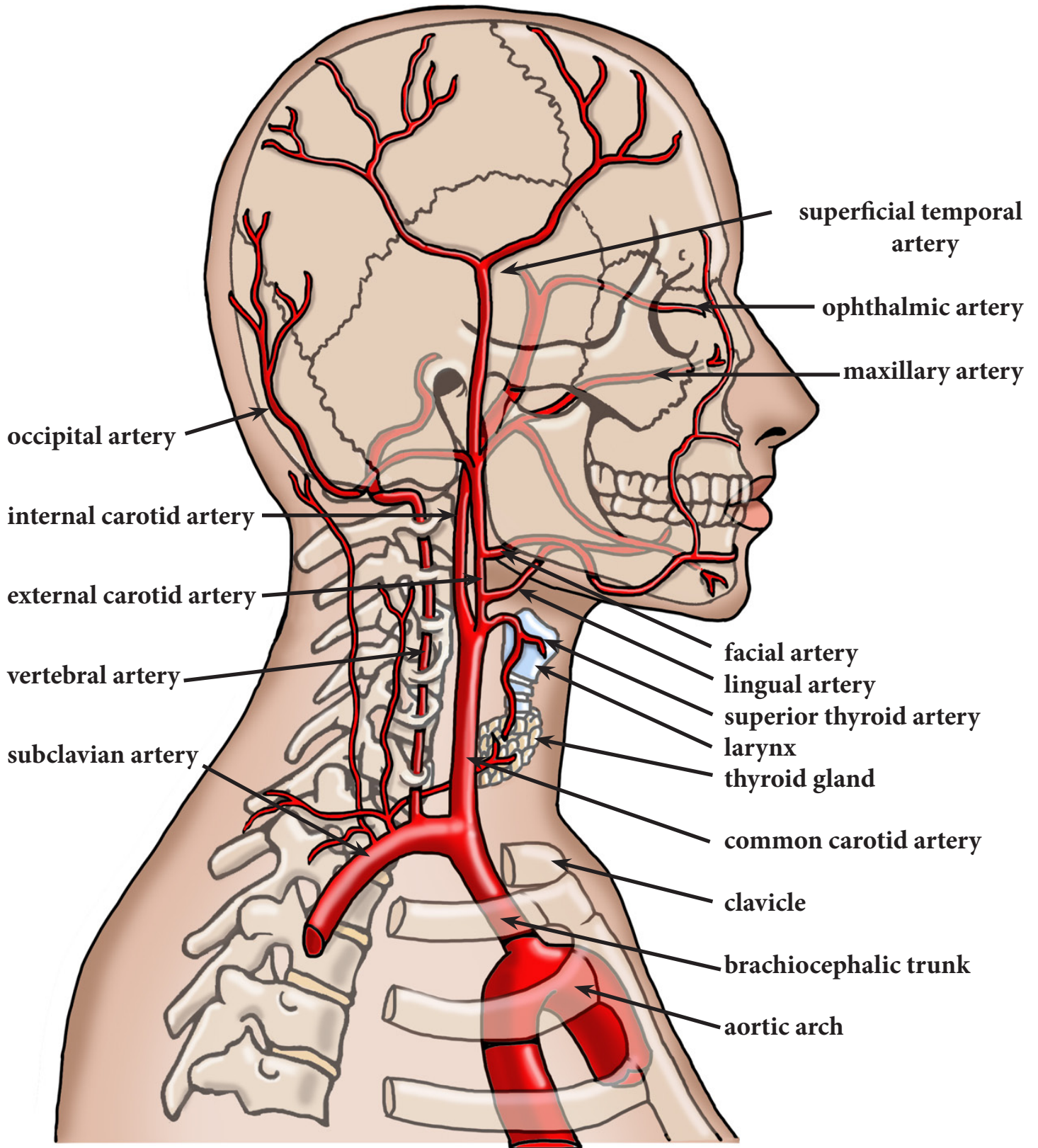
The **common carotid arteries** supply blood to the head and neck. Each common carotid artery runs up one side of the neck (at the branch is a swollen area containing a **pressoreceptor** regulating BP), each branches into an: **External carotid artery** (supplies blood to the face and scalp) and **internal carotid artery** (blood to the brain)

The **external carotid arteries** branch into:

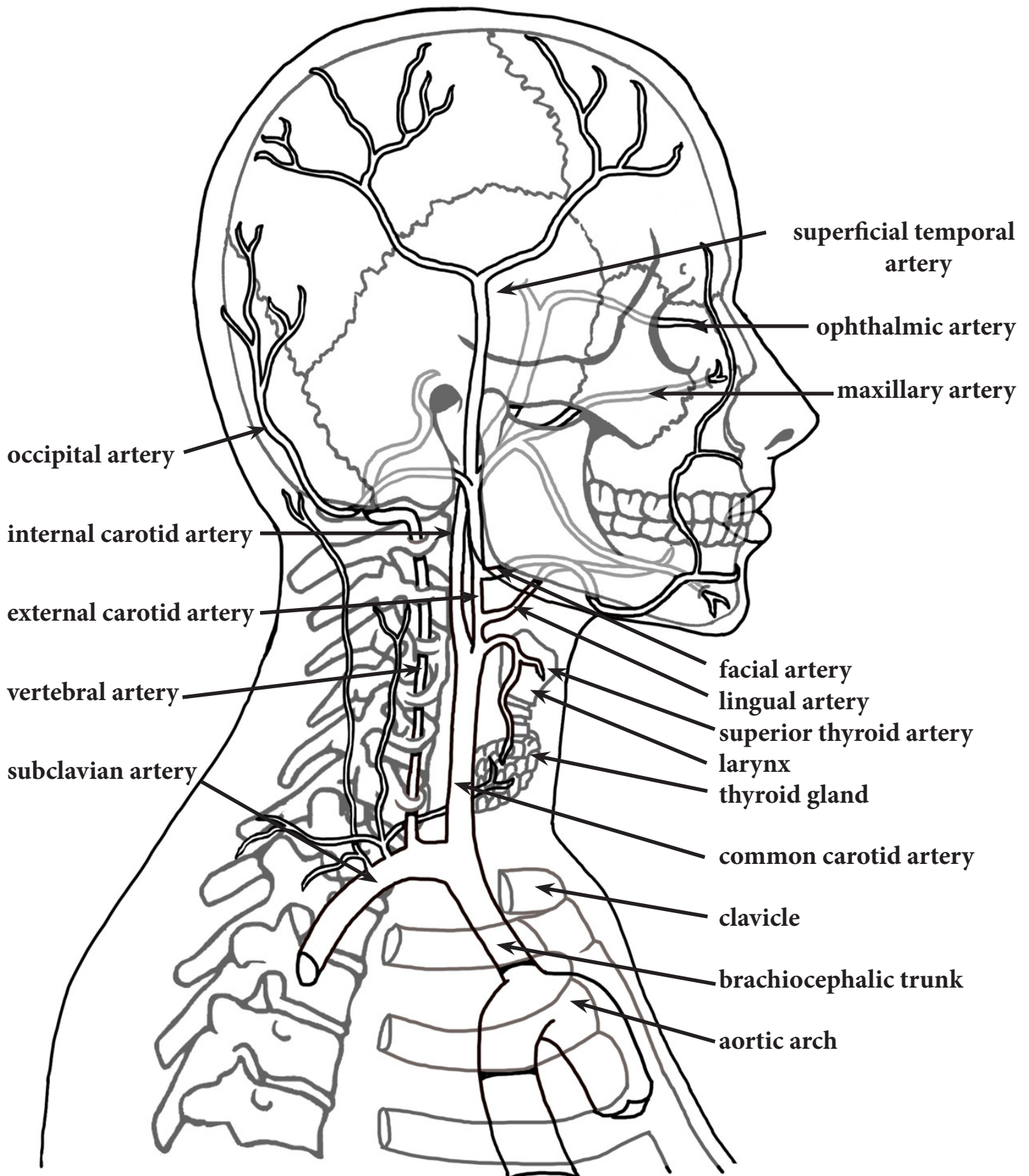
- > **superior thyroid artery** supplies blood to the thyroid gland and larynx
- > **lingual artery** supplies blood to the tongue
- > **facial artery** supplies blood to the face
- > **occipital artery** supplies blood to the posterior scalp
- > Then splits into **maxillary artery** (blood supply to deep facial structures) and **superficial temporal artery** (blood supply to the skin of the scalp and face above zygomatic arch).



Arteries of the Head and Neck



Arteries of the Head and Neck



The Circle of Willis

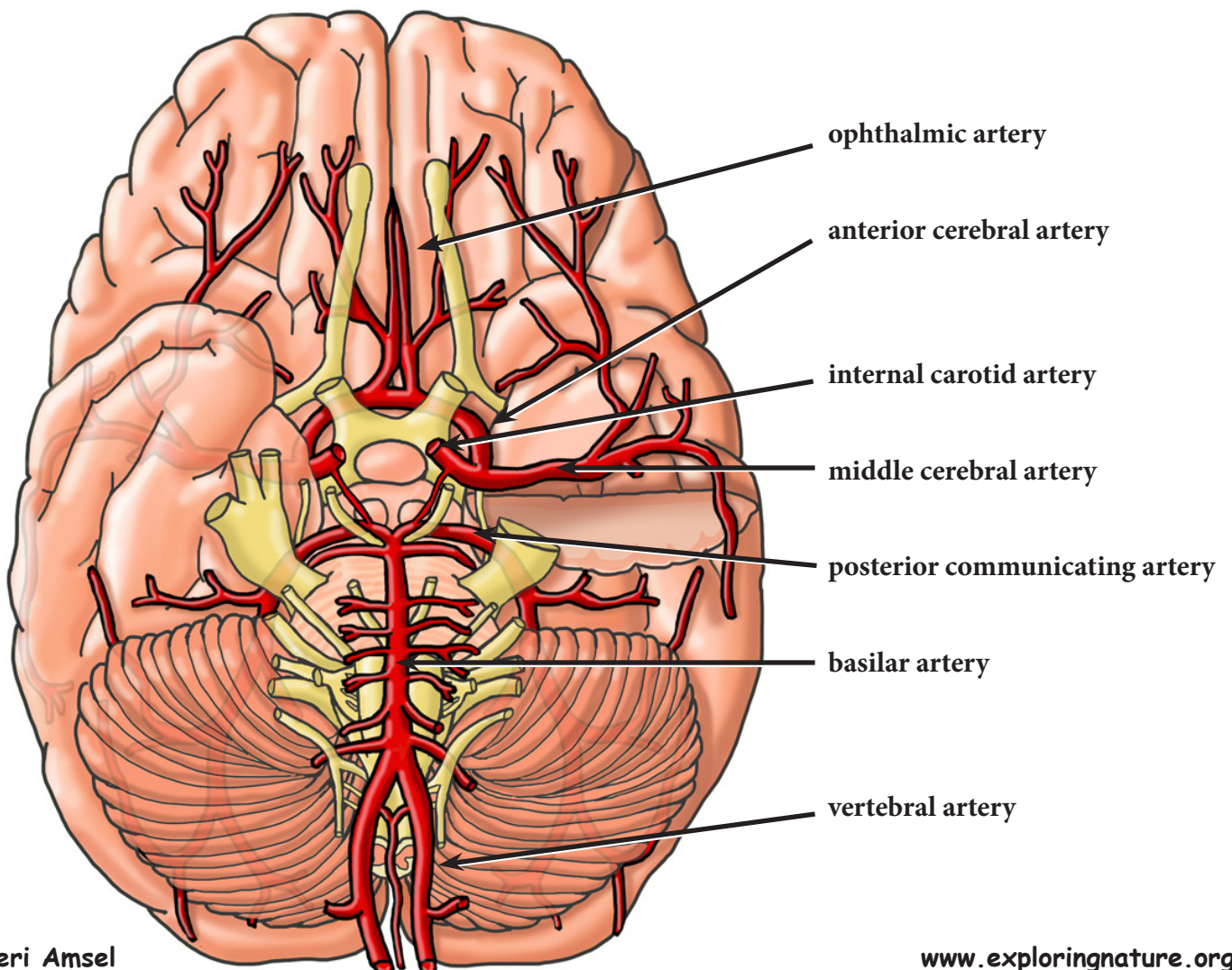
The **internal carotid artery** helps create the **Circle of Willis** – an anastomoses of brain circulation between the internal carotid and vertebral arteries. The **internal carotid arteries** supply blood to 80% of the cerebral hemispheres. They enter the skull through the **carotid canals** and branch into:

- > **ophthalmic arteries** which supply blood to the eye sockets, anterior scalp and nasal cavity
- > **anterior cerebral arteries** which supply blood to the medial cerebral hemispheres
- > **middle cerebral arteries** which supply blood to the lateral temporal lobes and parietal lobes.

From the other end of the circle, the **vertebral arteries** supply blood to the posterior head and neck. They travel up the neck through the **transverse processes** of the **cervical vertebrae** and enter the skull through the foramen magnum to join into the:

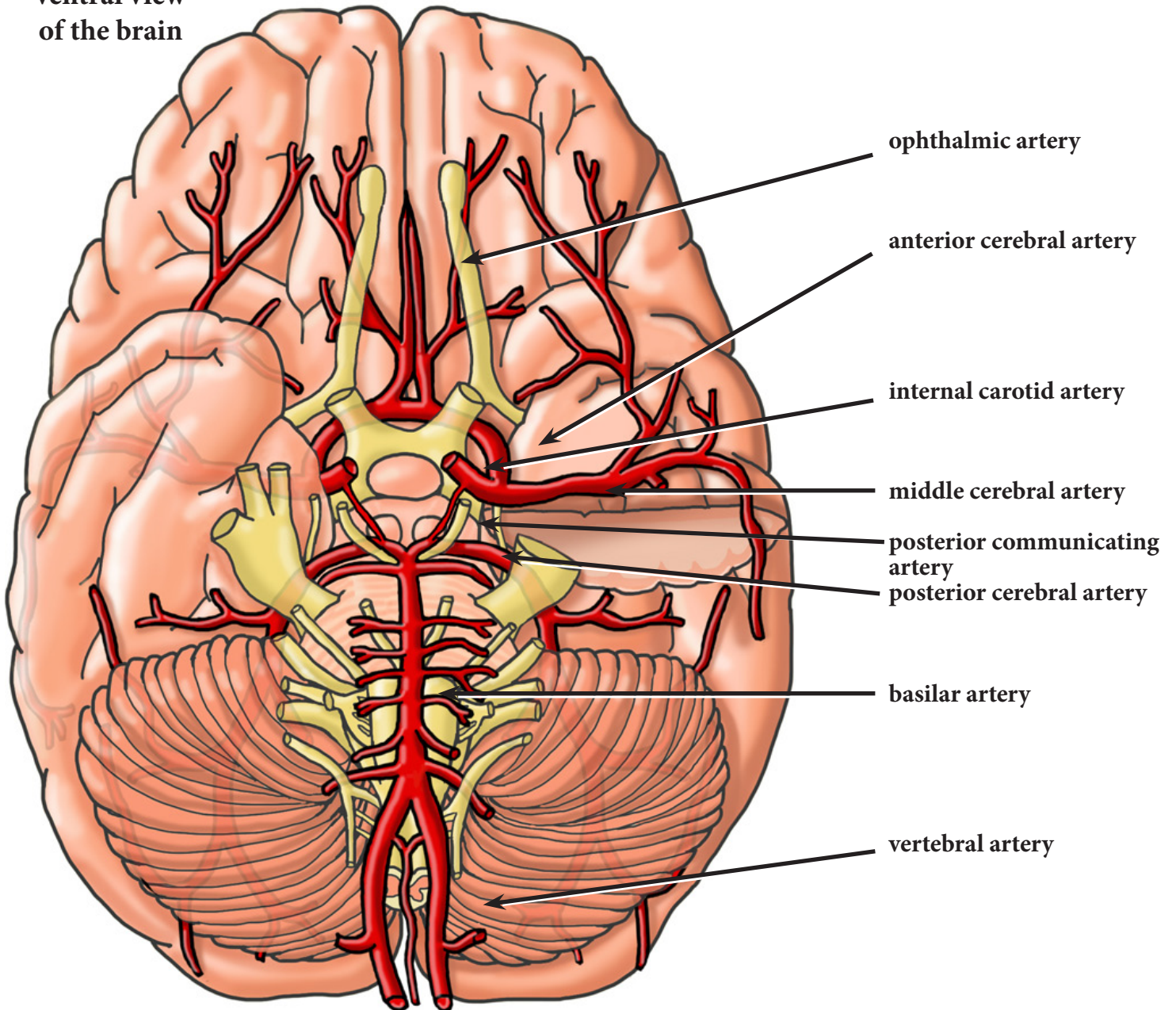
- > **basilar artery** which supplies blood to the brain stem.
- > It then splits into two **posterior cerebral arteries** supplying blood to occipital lobes and temporal lobes.
- > Two **posterior communication arteries** connect the **posterior cerebral arteries** to the **middle cerebral arteries** forming the **Circle of Willis**.

ventral view of the brain



The Circle of Willis

ventral view
of the brain



Close Up of the Circle of Willis

