

The **hypophysis** (*pituitary body*) (Fig. 721) is a reddish-gray, somewhat oval mass, measuring about 12.5 mm. in its transverse, and about 8 mm. in its antero-posterior diameter. It is attached to the end of the infundibulum, and is situated in the fossa hypophyseos of the sphenoidal bone, where it is retained by a circular fold of dura mater, the **diaphragma sella**; this fold almost completely roofs in the fossa, leaving only a small central aperture through which the infundibulum passes.

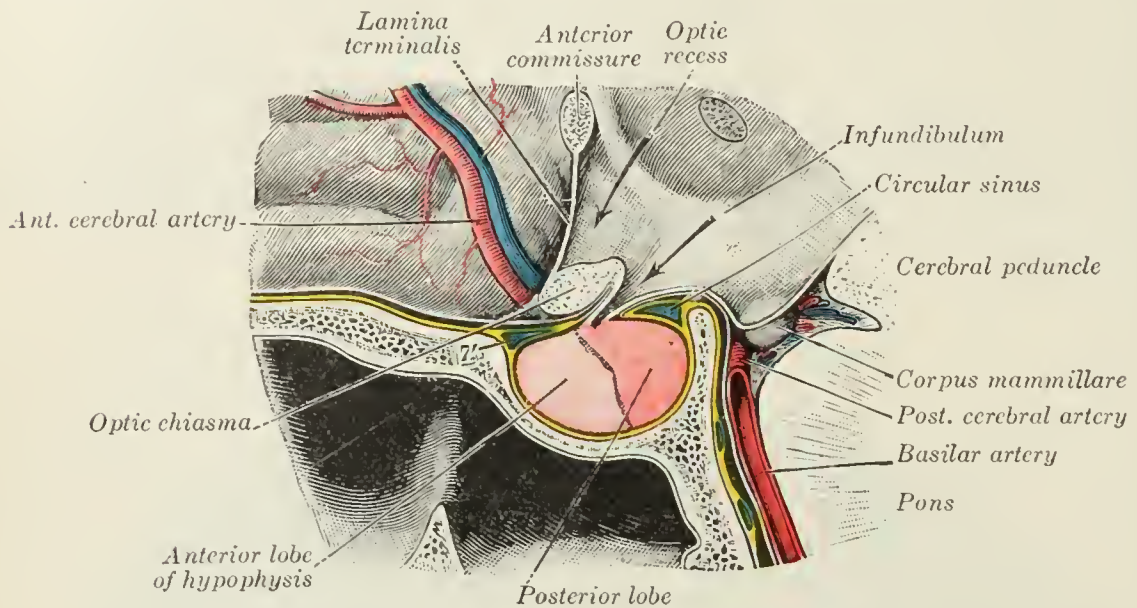


FIG. 721.—The hypophysis cerebri, in position. Shown in sagittal section.

**Optic Chiasma** (*chiasma opticum*; *optic commissure*).—The optic chiasma is a flattened, somewhat quadrilateral band of fibers, situated at the junction of the floor and anterior wall of the third ventricle. Most of its fibers have their origins in the retina, and reach the chiasma through the optic nerves, which are continuous with its antero-lateral angles. In the chiasma, they undergo a partial decussation (Fig. 722); the fibers from the nasal half of the retina decussate and enter the optic tract of the opposite side, while the fibers from the temporal half of the retina do not undergo decussation, but pass back into the optic tract of the same side. Occupying the posterior part of the commissure, however, is a strand of fibers, the **commissure of Gudden**, which is not derived from the optic nerves; it forms a connecting link between the medial geniculate bodies.

**Optic Tracts.**—The optic tracts are continued backward and lateralward from the postero-lateral angles of the optic chiasma. Each passes between the anterior perforated substance and the tuber cinereum, and, winding around the ventro-lateral aspect of the cerebral peduncle, divides into a medial and a lateral root. The former comprises the fibers of Gudden's commissure. The lateral root consists mainly of afferent fibers which arise in the retina and undergo partial decussation in the optic chiasma, as described; but it also contains a few fine efferent fibers which have their origins in the brain and their terminations in the retina. When traced backward, the afferent fibers of the lateral root are found to end in the lateral geniculate body and pulvinar of the thalamus, and in the superior colliculus; and these three structures constitute the **lower visual centers**. Fibers arise from the nerve cells in these centers and pass through the occipital part of the internal capsule, under the name of the **optic radiations**, to the cortex of the occipital lobe of the cerebrum, where the **higher or cortical visual center** is situated. Some of the fibers of the optic radiations take an opposite course, arising from the cells of the occipital cortex and passing to the lower visual centers. Some fibers are detached from the optic tract, and pass through the cerebral peduncle to the nucleus of the oculomotor nerve. These may be regarded as the afferent branches for the