

nerves of the opposite side. Many of the fibers which arise from the terminal sensory nuclei of the cranial nerves pass upward in the formatio reticularis as a separate bundle, known as the **central tract of the cranial nerves**, to the thalamus.

Many fibers either terminate in or send off collaterals to the gray matter of the medulla, the pons, and the mid-brain. Large numbers of fibers pass to or from the substantia nigra. Many collaterals enter the red nucleus and other fibers are said to run to the superior colliculus. The great bulk of the fibers, however, enter the ventro-lateral portion of the thalamus, give off collaterals to the posterior semi-lunar nucleus and then terminate in the principal sensory nucleus of the thalamus.

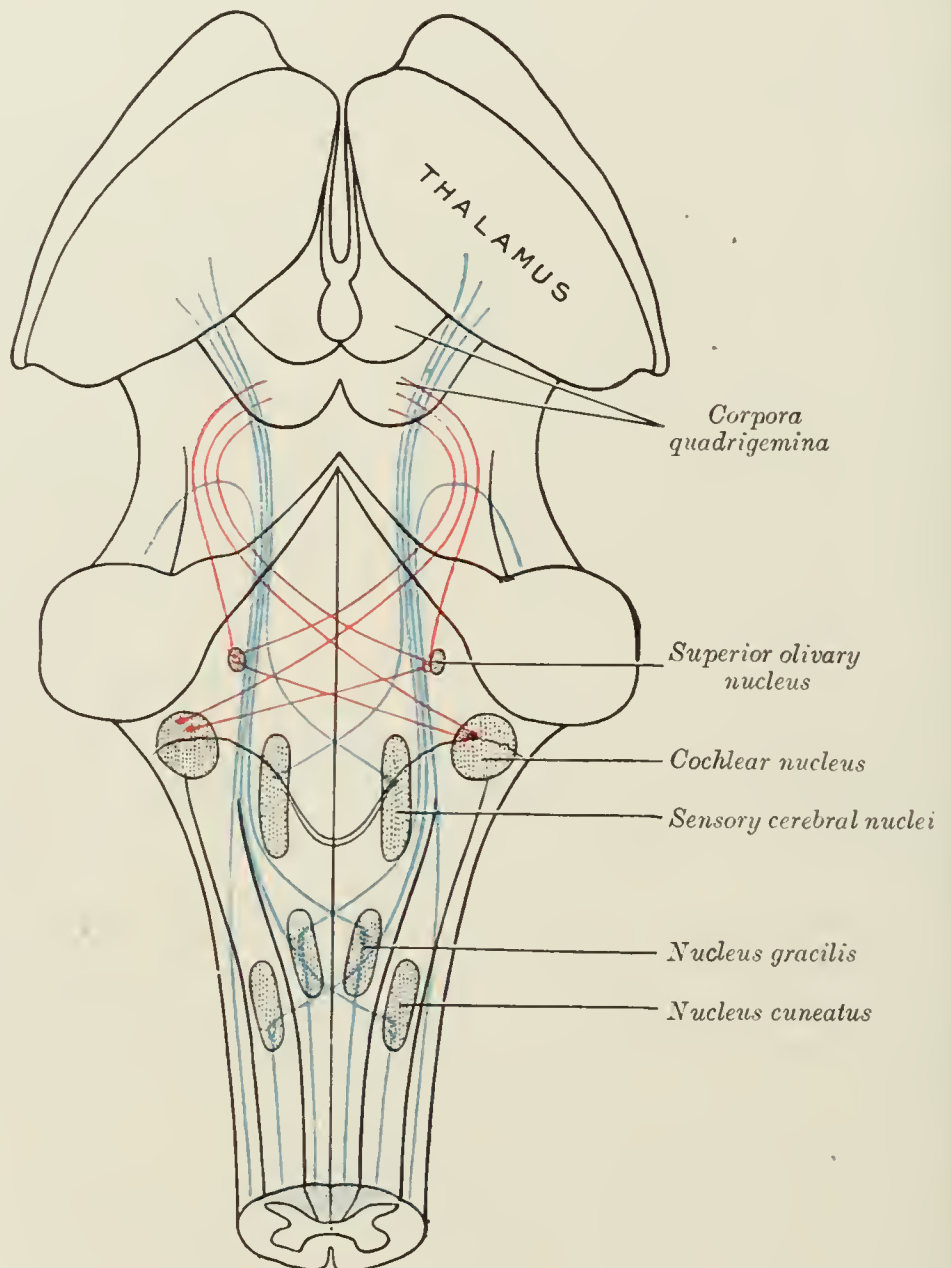


FIG. 713.—Scheme showing the course of the fibers of the lemniscus; medial lemniscus in blue, lateral in red.

In the cerebral peduncle, a few of its fibers pass upward in the lateral part of the base of the peduncle, on the dorsal aspect of the temporopontine fibers, and reach the lentiform nucleus and the insula. The greater part of the medial lemniscus, on the other hand, is prolonged through the tegmentum, and most of its fibers end in the thalamus; probably some are continued directly through the occipital part of the internal capsule to the cerebral cortex. From the cells of the thalamus a relay of fibers is prolonged to the cerebral cortex.

The medial lemniscus may be considered as the upward continuation of the posterior funiculus of the spinal cord and to convey conscious impulses of muscle sense and tactile discrimination.