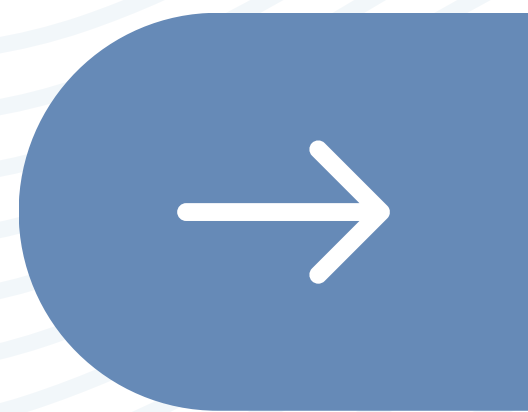




# #DIBS BY NEXTILLO

DAILY INFORMATION BULLETIN SERVICE

**WHITE MATTER TRACTS**





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## WHITE MATTER TRACTS

*There are three different kinds of tracts (bundles of axons) that connect one part of the brain to another within the white matter:*

*Projection tracts/Projection fibers*

*Commissural tracts/Commissural fibers*

*Association tracts/Association fibers*



# PROJECTION FIBERS

- ***Projection fibers are afferent and efferent tracts that interconnect areas of the cortex with the brainstem, deep nuclei and cerebellum, and spinal cord.***
- ***Of these, the main ones identifiable on DTI include the corticospinal, corticobulbar, corticopontine, and geniculocalcarine tracts (optic radiations).***
- ***The thalamus is known to have reciprocal connections .***



# COMMISURAL TRACTS

- ***Commissural fibers are the white matter tracts connecting corresponding homologous regions between the 2 hemispheres.***
- ***The main structures discussed are the corpus callosum and anterior commissure.***
- ***The main function of the corpus callosum is interhemispheric sensorimotor and auditory connectivity.***
- ***The anterior commissure is a small compact bundle of fibers between the anterior and posterior columns of the fornix.***



# ASSOCIATION FIBERS

- ***Association fibers unite different cortical areas within the same hemisphere and can be short or long.***
- ***Short association fibers connect areas within the same lobe and include subcortical U fibers, which connect adjacent gyri.***
- ***Long association fibers include the SLF, inferior longitudinal fasciculus, middle longitudinal fasciculus (MLF), uncinate fasciculus, superior fronto-occipital fasciculus, and inferior fronto-occipital fasciculus.***





# MCQ

## QUESTION

***Association fibers are all except?***

- ***A-Longitudinal fasciculus***
- ***B-Cingulum***
- ***C-Uncinate fasciculus***
- ***D-Forceps Major***
- ***ANS-D***

