Online Tables

Table 1: Summary of the supratentorial arachnoid membranes

 Summarized and reproduced with permission from (Lü J. Arachnoid membrane: the first and probably the last piece of the roadmap. Surg Radiol Anat 37**,** 127–138 (2015). Springer-Verlag France).

Arachnoid membranes	Description	Relation to the subarachnoid cisterns	Other names
Olfactory membrane	Extends over the basal surface of the olfactory trigone from the posterior orbital gyrus to the gyrus rectus	Separates the carotid cistern from the olfactory cistern	
Medial lamina terminalis membrane	Extends horizontally between the posteromedial edges of the rectus gyri	Separates the lamina terminalis and the pericallosal cistern	
Lateral lamina terminalis membrane	Extends posteriorly and inferiorly from the posterolateral edge of the gyrus rectus to the lateral	Separates the lamina terminalis and the carotid or Sylvian cistern	Anterior cerebral membranes

	edge of the optic chiasm		
Medial carotid membrane	Stretches in the sagittal plane from the diencephalic leaf of Liliequist's membrane to the lateral edge of the optic nerve	Separates the carotid and chiasmatic cisterns	Carotid membrane
Lateral carotid membrane	Extends in the sagittal plane from the lateral edge of the optic nerve and the posterior part of the orbital gyrus to the arachnoid sheath of the oculomotor nerve	The lateral wall of the carotid cistern	Anterior choroidal membrane
Posterior communicating membrane	Extends from the medial carotid membrane or the lateral edge of the optic chiasm and the	Separates the carotid cistern from the posterior communicating cistern	Internal carotid membrane

	optic tract to the lateral carotid membrane or the mesial surface of the temporal lobe		
Anterior choroidal membrane	Located between the origins of the anterior choroidal artery and the posterior communicating artery; stretches in the horizontal plane from the lateral edge of the optic chiasm or the optic tract to the mesial surface of the temporal lobe	Separates the posterior communicating cistern and Sylvian cistern from the crural cistern	Intracarotid membrane; crural membrane
Proximal Sylvian membrane	Stretches in the sagittal plane across the proximal part of the sylvian fissure from the posterior part of the orbital	Separates the Sylvian and carotid cisterns	

	gyrus to the medial surface of the uncus		
Intrasylvian membranes	A group of three membranes within the Sylvian fissure which include the medial, intermediate and lateral Sylvian membranes; run in the sagittal plane		

Table 2: Summary of the infratentorial arachnoid membranes

 Summarized and reproduced with permission from (Lü J. Arachnoid membrane: the first and probably the last piece of the roadmap. Surg Radiol Anat 37**,** 127–138 (2015). Springer-Verlag France).

Arachnoid membranes	Description	Relation to the subarachnoid cisterns	Other names
Liliequist's membrane	Arises from the posterior clinoid processes and dorsum sellae; gives rise to two separate sheets		
Diencephalic leaf	Extends upward and attaches to the diencephalon at the posterior edge of the mammillary bodies	Separates the chiasmatic and interpeduncular cisterns	Temporal membrane
Mesencephalic leaf	Extends backward and attaches along the junction of the midbrain and pons	Separates the interpeduncular and prepontine cisterns	Anterior perimesencephalic membrane

Lateral oculomotor membrane	Located lateral to the oculomotor nerve and spreads in the sagittal plane from the diencephalic leaf of Liliequist's membrane to the lateral pontomesencephalic membrane	Separates the oculomotor cistern from the crural and ambient cistern	
Basilar artery bifurcation membrane	Extends from the basilar artery bifurcation and the proximal segments of the posterior cerebral arteries and/or the superior cerebellar arteries to the anterior edge of the mammillary bodies	Divides interpeduncular cistern into superficial and deep parts	
Posterior perforated membrane	Behind the basilar artery bifurcation membrane and	Subdivides the deep part of	

	stretches from the bifurcation of the basilar artery to the posterior edge of the mammillary bodies	interpeduncular cistern	
Intracrural membrane	Extends in the horizontal plane from the posterior part of the uncus to the cerebral peduncle and adjacent part of the optic tract	Separates the crural cistern into superior and inferior compartments	
Posterior cerebral membrane	Between the posterior cerebral artery and the superior cerebellar artery within the ambient cistern	Divides the ambient cistern to superior and inferior parts	Superior cerebellar membrane; perimesencephalic membrane
Medial pontomesencephalic membrane	Midline membrane stretches from the basilar artery and the pons to the	Separates the interpeduncular cistern from the prepontine cistern	Mesencephalic membrane; medial mesencephalic leaf; top basilar membrane; basilar

	mesencephalic leaf of LM		artery bifurcation membrane
Lateral pontomesencephalic membrane	Between the superior cerebellar artery and the trigeminal nerve and forms caudal wall of the oculomotor nerve	Separates the interpeduncular and ambient cisterns from the cerebellopontine cistern	Anterior perimesencephalic membrane; lateral mesencephalic membrane
Cerebellar precentral membrane	Joins the top of vermis of the cerebellum, the vein of Galen complex and the medial superior tips of both cerebellar hemispheres	Separates the quadrigeminal cistern laterally from the ambient cistern	Posterior perimesencephalic membrane; lateral mesencephalic membrane
Superior cerebellar membrane	Located at the ventrolateral surface of the pons and curves dorsally to the cerebello-	Separates the ambient cistern or lateral portion of the quadrigeminal cistern from the cerebellopontine	Perimesencephalic membrane; lateral mesencephalic membrane

	mesencephalic fissure	and the trigeminal cistern	
Anterior pontine membrane	Runs on both sides and parallel to the basilar artery ventral to the pons	Separates the prepontine cistern from the cerebellopontine cistern	Basilar membrane
Trigeminal membrane	Stretches from the lateral surface of the trigeminal nerve to the inferior surface of the superior cerebellar membrane or the inferior surface of the tentorium	Separates the trigeminal cistern from the cerebellopontine cisterns	
Medial pontomedullary membrane	Located in midline in the pontomedullary sulcus and the superior extremity of the medulla	Separates the premedullary and prepontine cisterns	

Lateral pontomedullary membrane	Located in the lateral portion of the pontomedullary sulcus	Separates the cerebellopontine from the premedullary and/or cerebellomedullary cisterns	Anterior inferior cerebellar membrane; pontomedullary membrane
Median medullary membrane	Midline sagittal membrane located at the level of the vertebrobasilar junction and follows the anterior spinal arteries to the foramen magnum	Separates partly the bilateral premedullary cisterns	
Rhomboid membrane	Midline membrane located in the craniovertebral junction, ventral to the medulla oblongata and the spinal cord.	Separates the premedullary cistern from the cerebellomedullary cistern	

Posterior inferior cerebellar artery membrane	Stretches between the posterior inferior cerebellar artery, the medulla and the arachnoid mater	Divides the cisterna magna into one medial and two lateral compartments	
Dorsal vermian membrane	Located in the midline within the cisterna magna and stretches from the cerebellar vermis and medulla to the arachnoid mater	Divides cisterna magna into two parts: left and right	