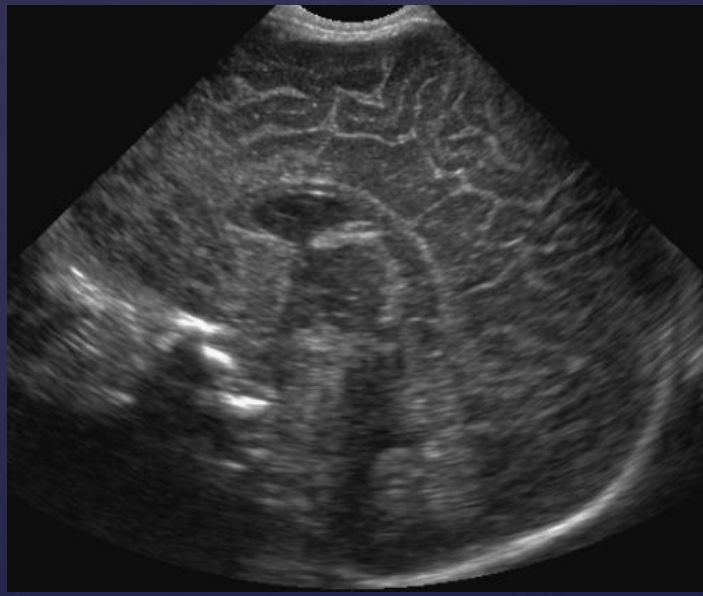
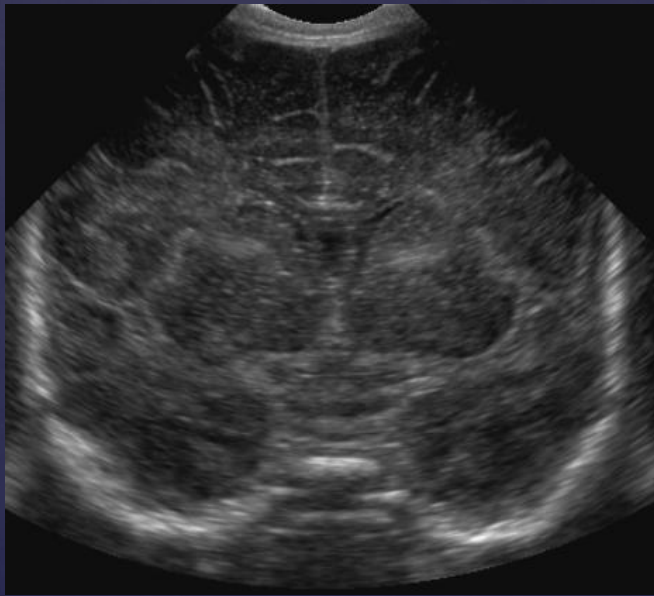
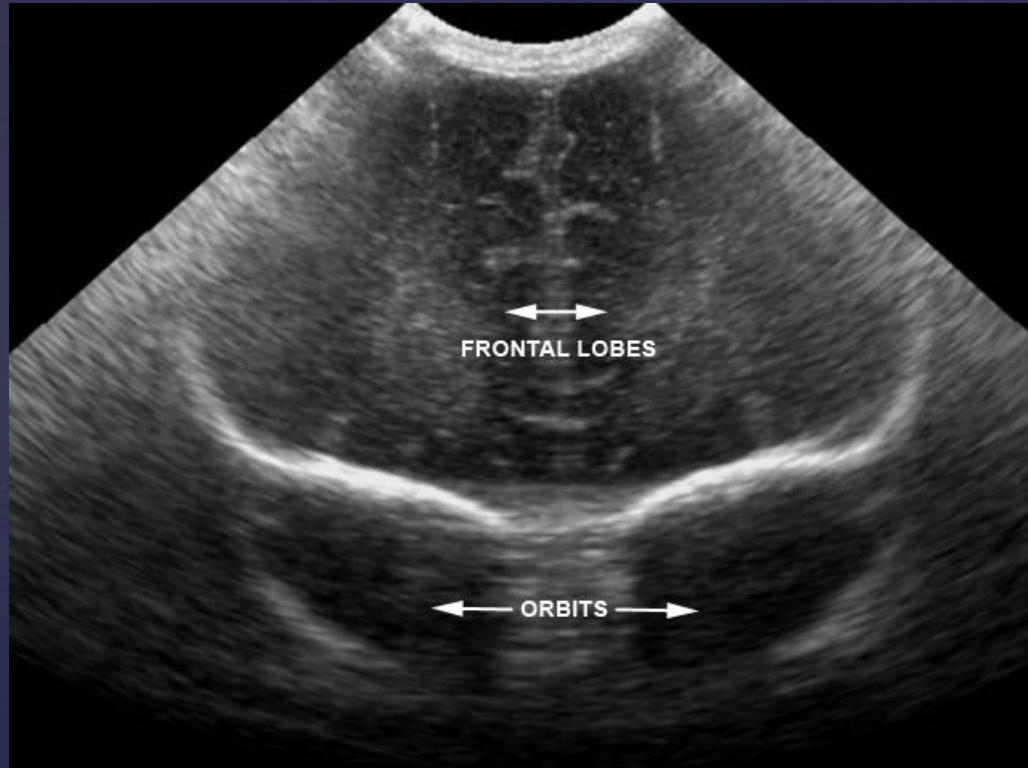


*AIUM Image Library:
Neurosonography in
Neonates and Infants*

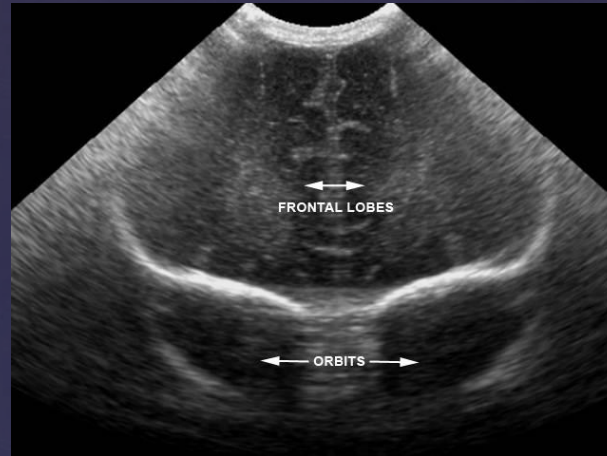


Frontal lobes



Coronal View

Normal



Abnormal

Note dilatation of the anterior horns of the lateral ventricles.



Dilatation of anterior LV horns, absent cingulate sulca, & absence of the echogenic corpus callosum roof.



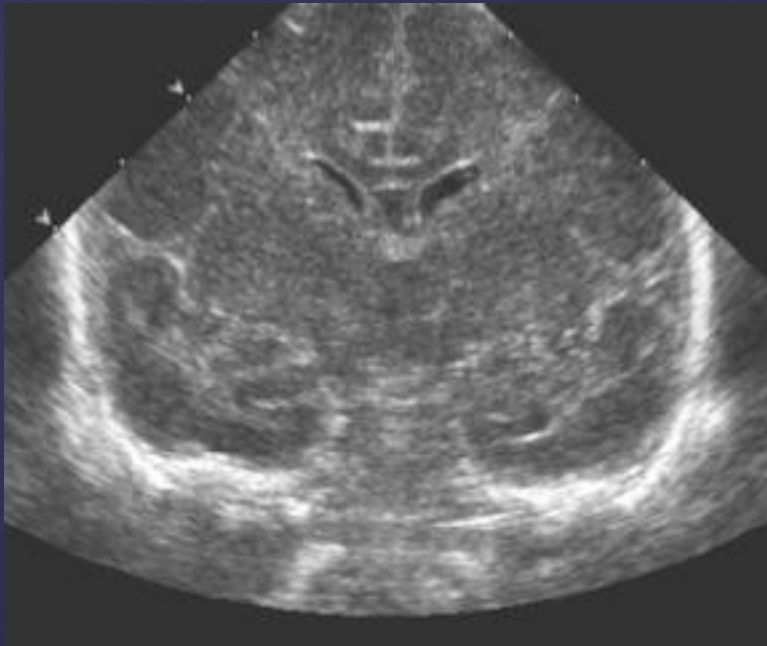
Bodies of lateral ventricles



Coronal View

Lateral ventricles at level of 3rd ventricle

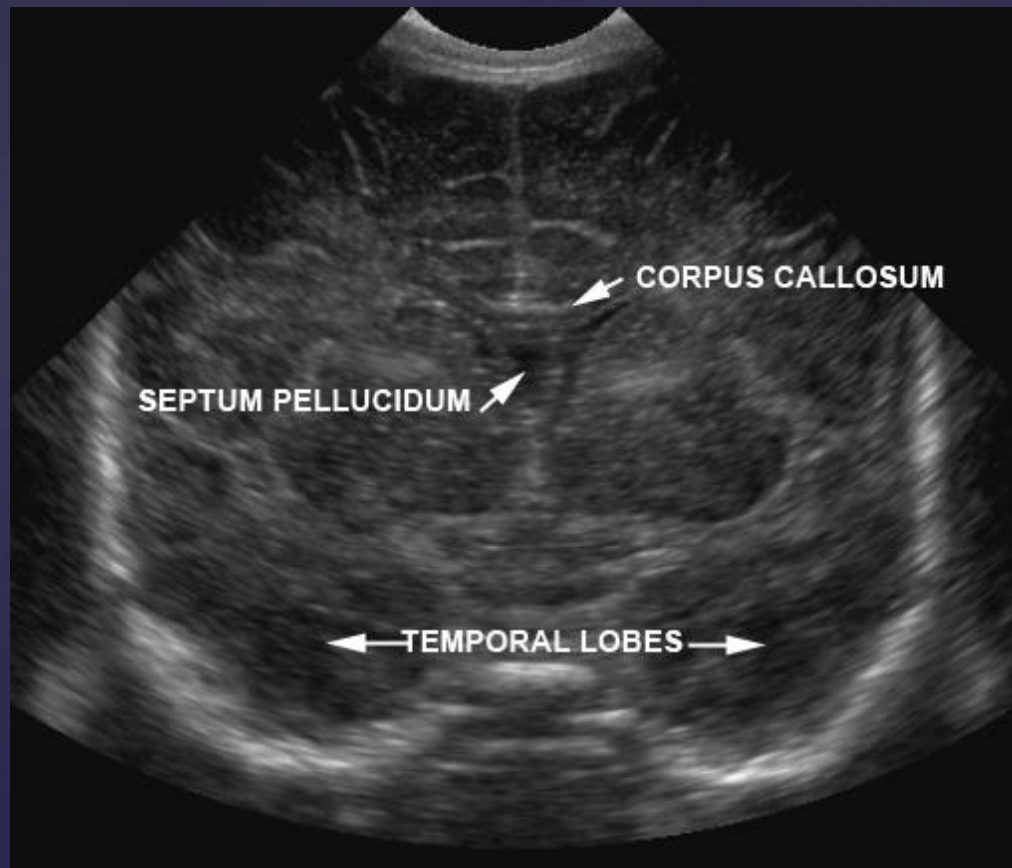
Normal ventricles



Ventriculomegaly

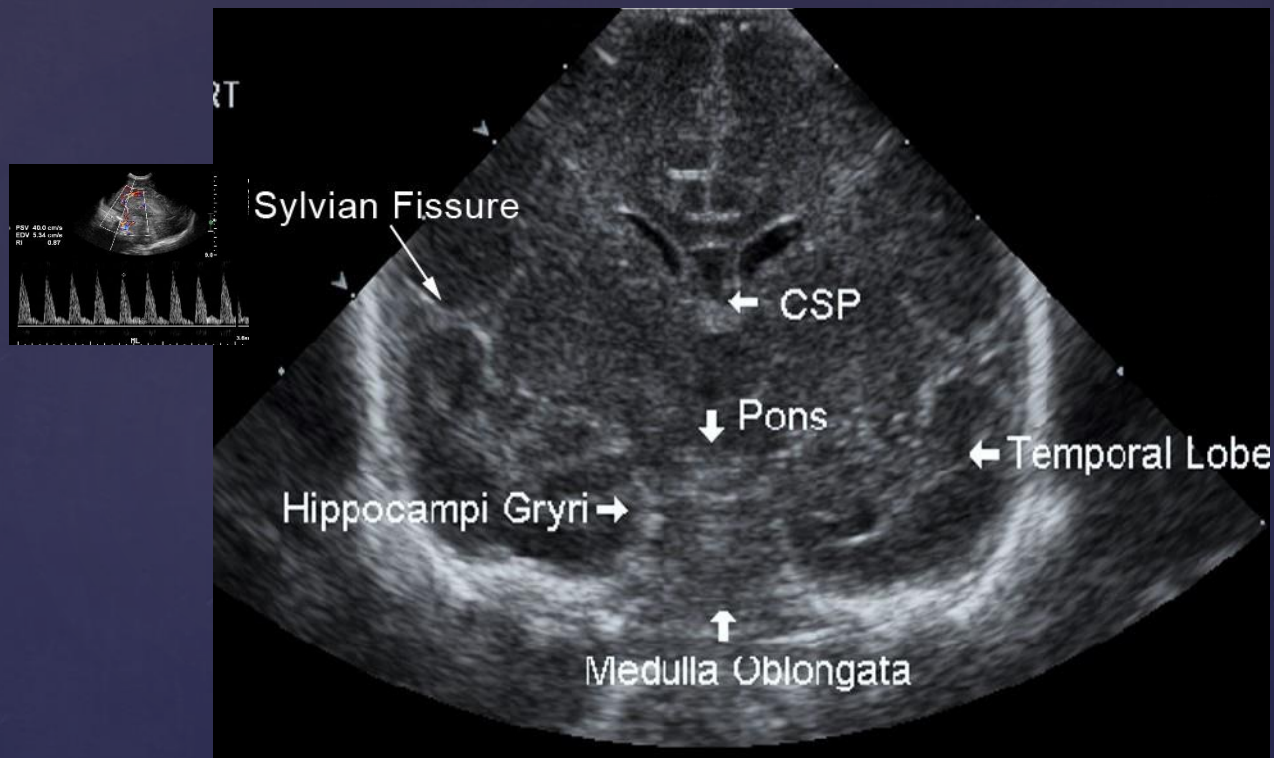


Septum pellucidum, corpus callosum, & portions of the frontal, parietal, & temporal lobes



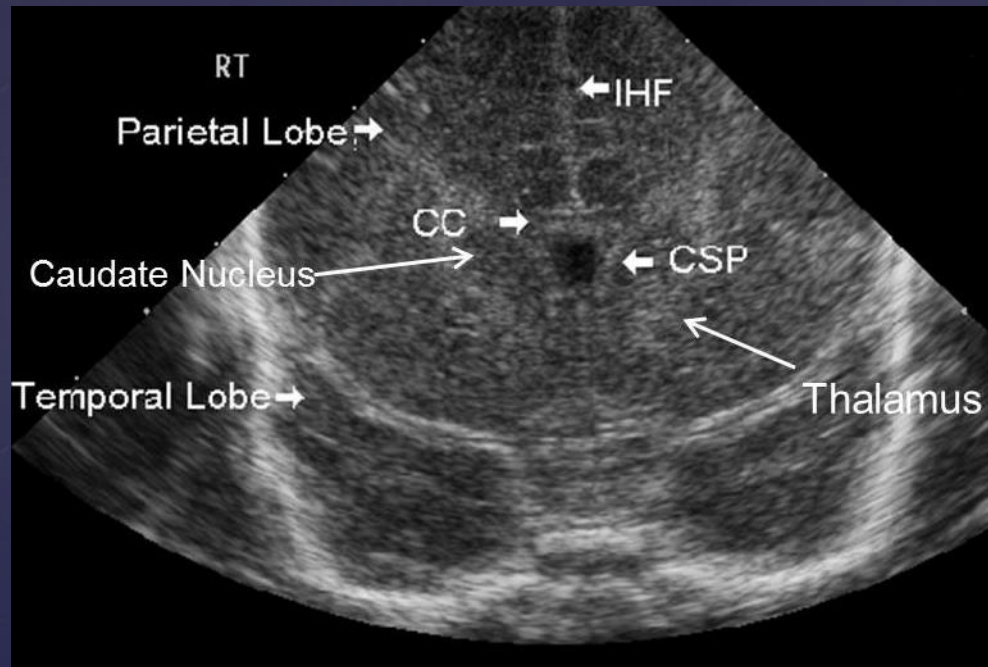
Coronal View

Foramen of Monroe, 3rd ventricle, & thalami



A true coronal plane through the area of the 3rd ventricle. Pulsations within the Sylvian Fissure represent the middle cerebral artery.

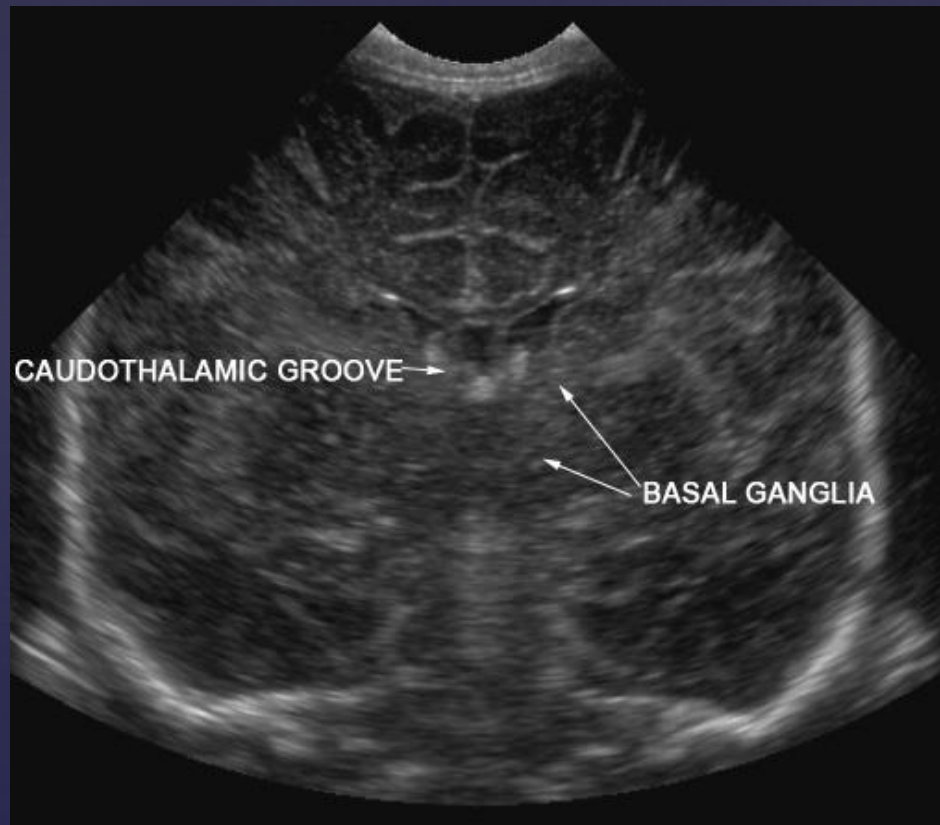
Frontal horns, caudate nucleus, & germinal matrix



Germinal matrix is located in the groove between the caudate nucleus & thalami in the floor of the LV.

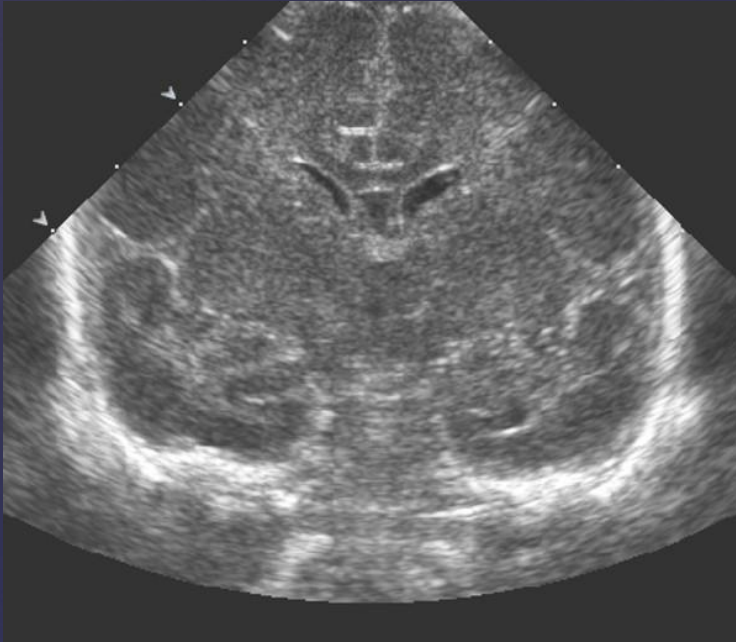
CC = corpus callosum CSP = cavum septum pellucidum

Caudothalamic groove & basal ganglia

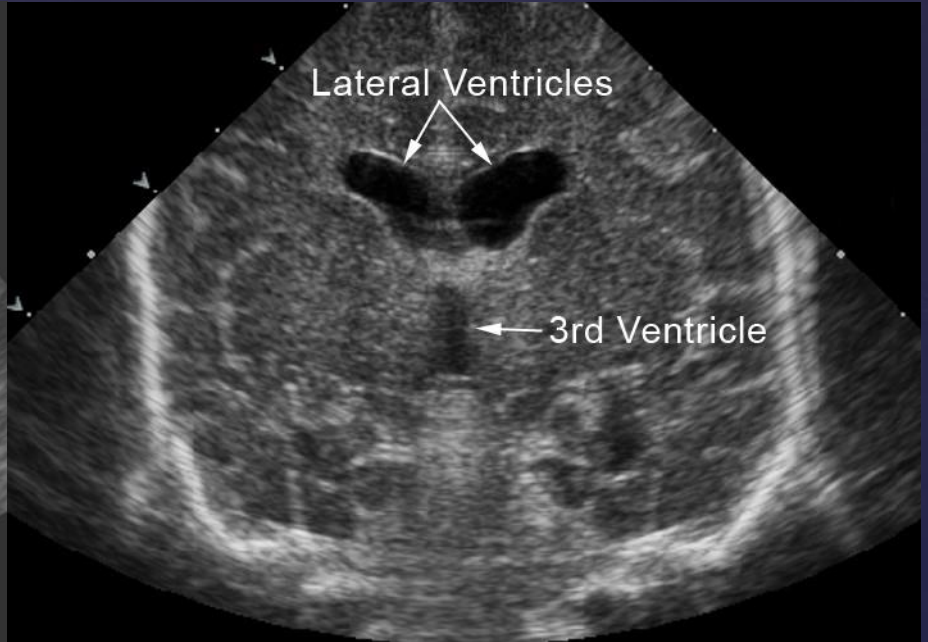


Coronal View

{ Normal



{ ABNORMAL



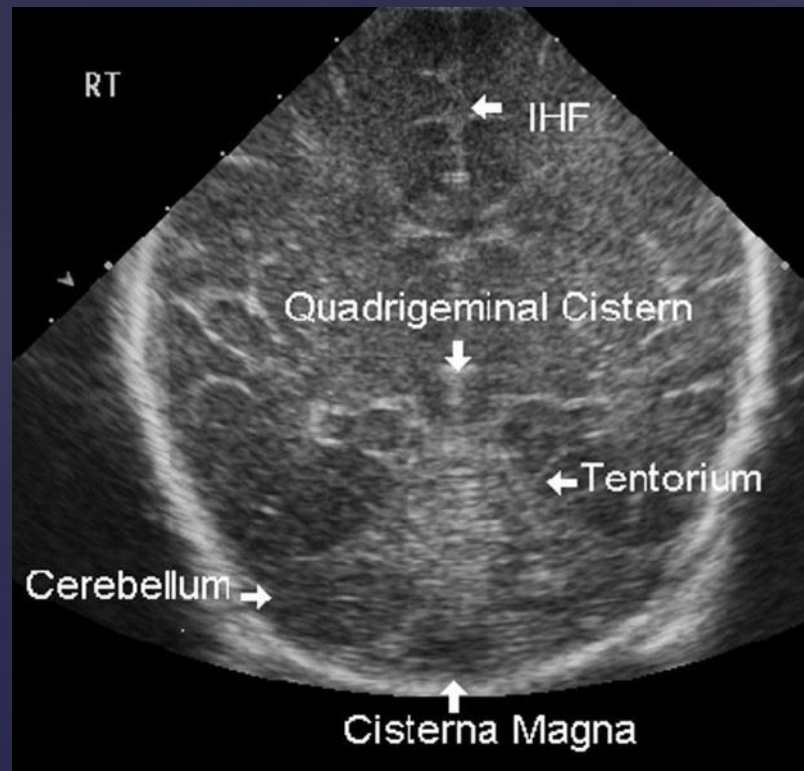
In the abnormal image on the right,
note dilatation of the lateral & 3rd ventricles.

Posterior temporal lobes, occipital lobes,
4th ventricle, cerebellum & cisterna magna



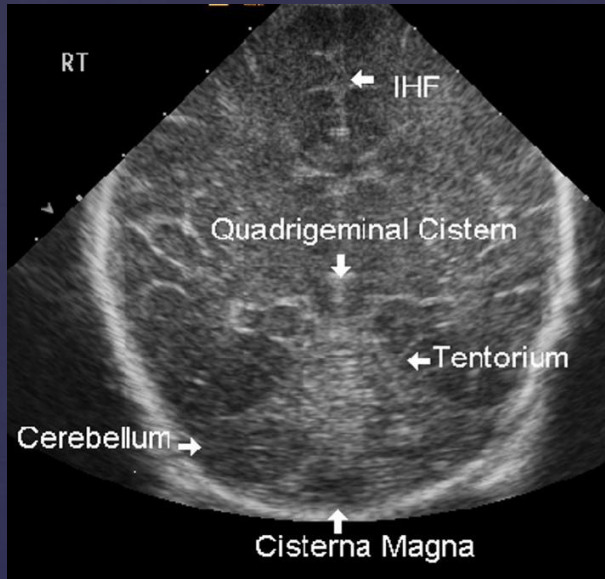
Coronal View

Tentorium, cerebellum, & cisterna magna

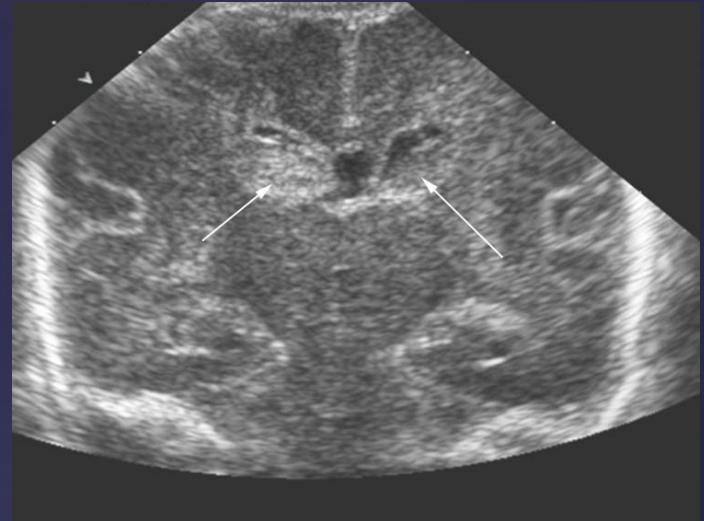


IHF = interhemispheric fissure

{ Normal



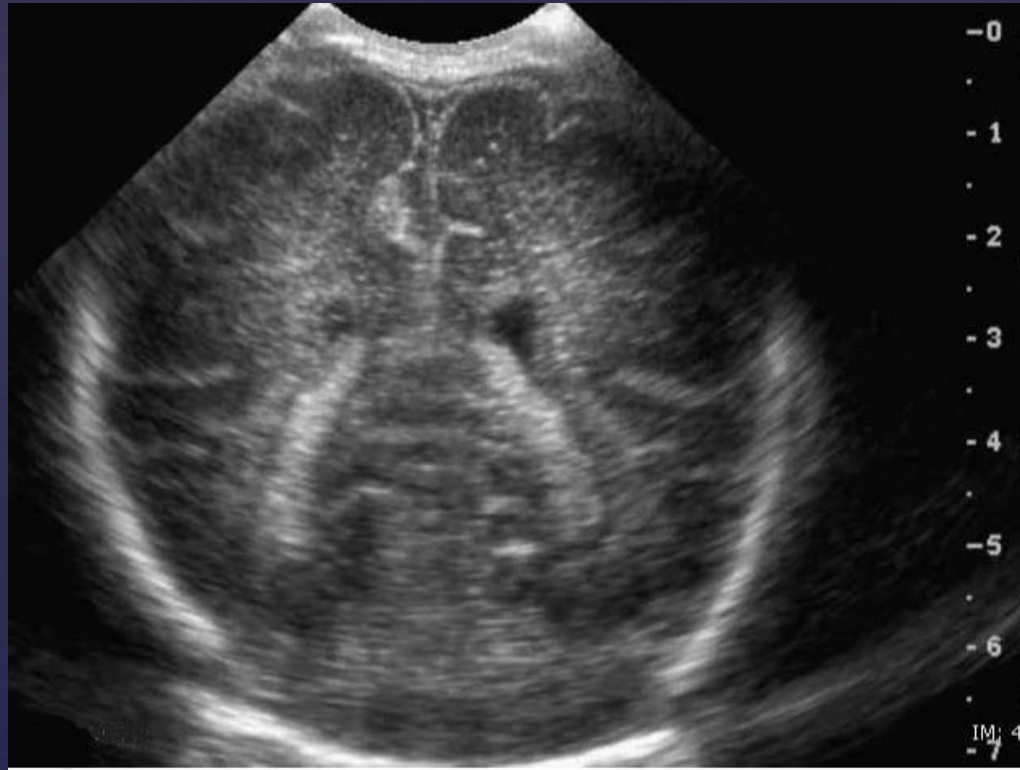
{ ABNORMAL



The magnified view on the right demonstrates abnormal-appearing choroid plexus.

IHF = Interhemispheric fissure

Echogenic Glomi of choroid plexus at posterior aspect of lateral ventricles

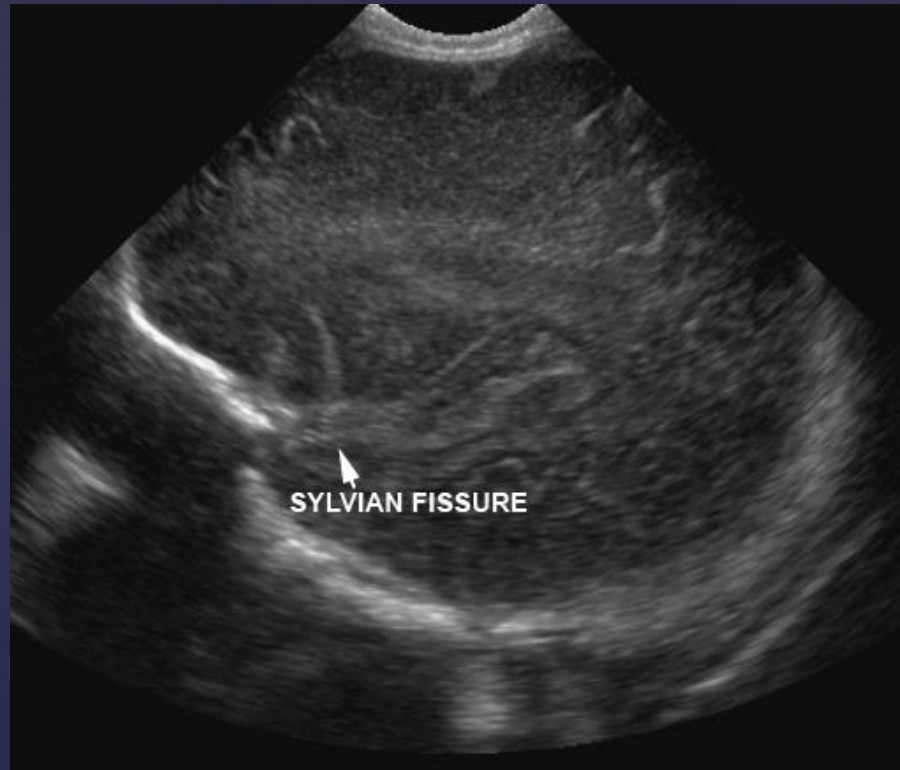


Linear transducer depicting superficial structures



Coronal View

Periventricular white matter



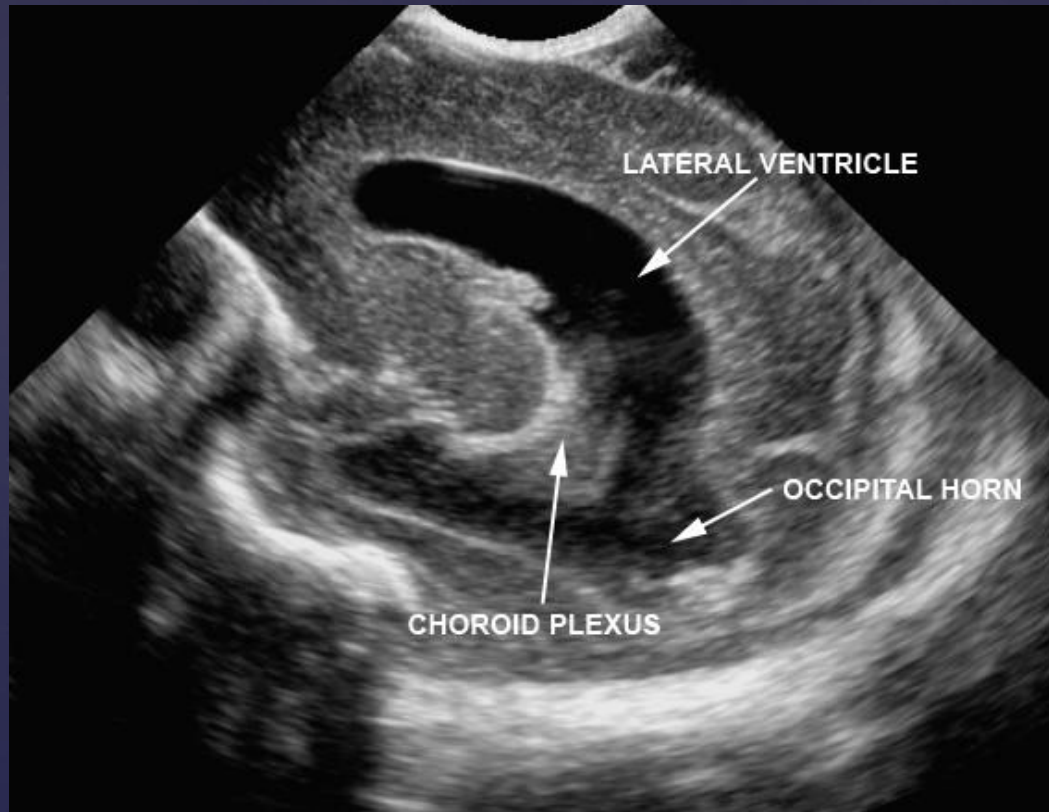
Sagittal view

Caudothalamic groove



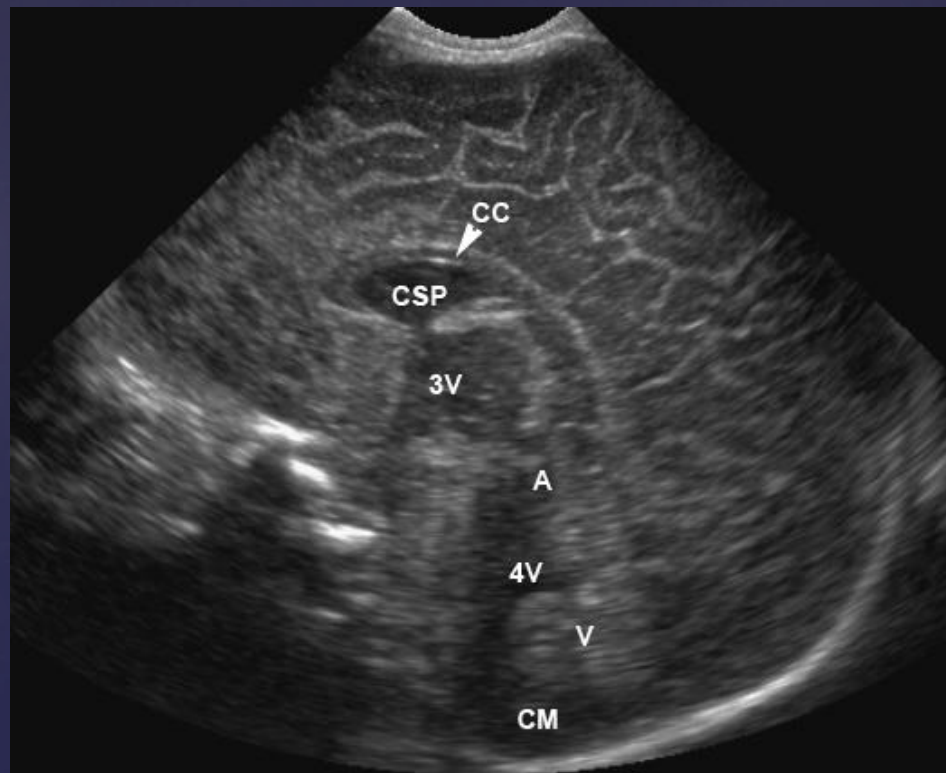
Lateral view

Lateral ventricle with occipital horn & choroid plexus



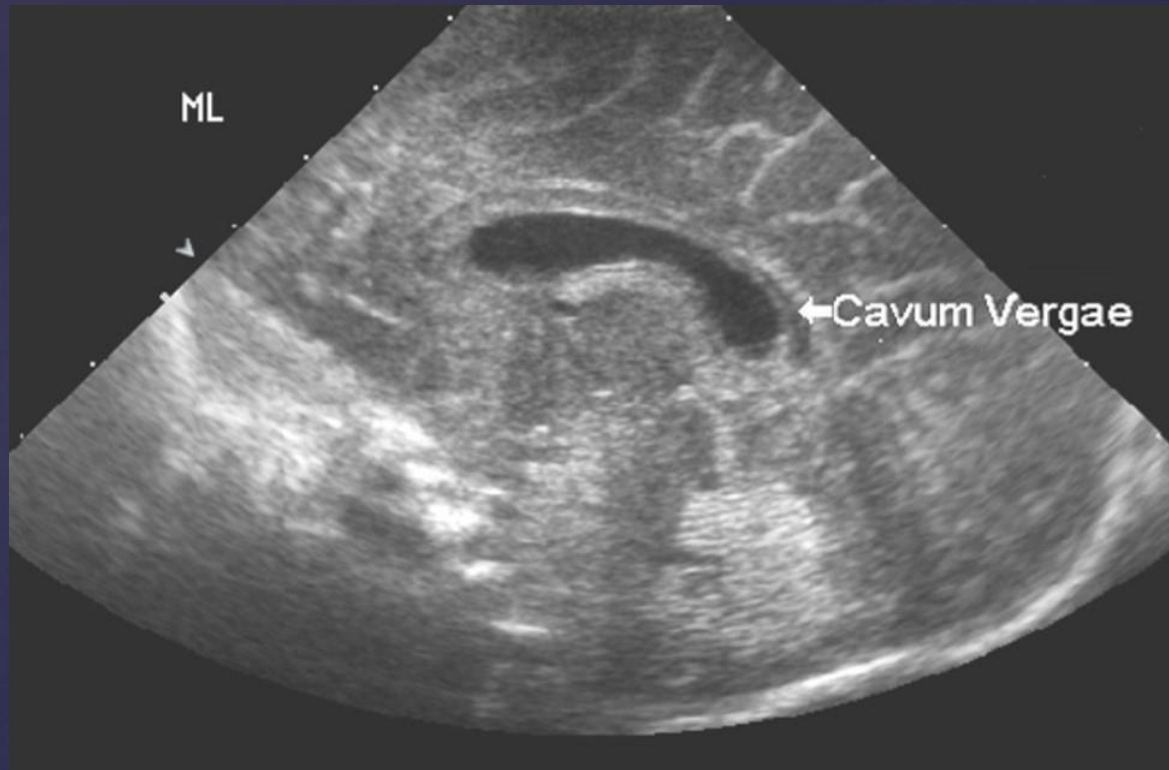
Sagittal view

Corpus callosum (CC) , cavum septum pellucidum (CSP),
3rd ventricle (3V), aqueduct (A),
4th ventricle (4V), vermis (V), cisterna magna (CM)



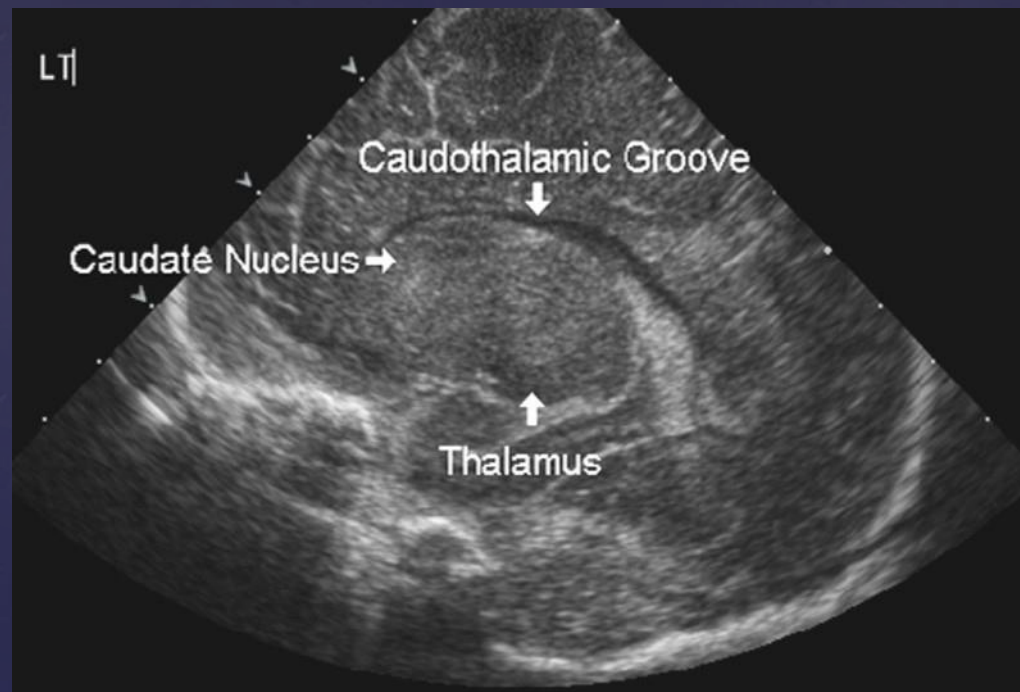
Midline Sagittal View

Midline Sagittal View



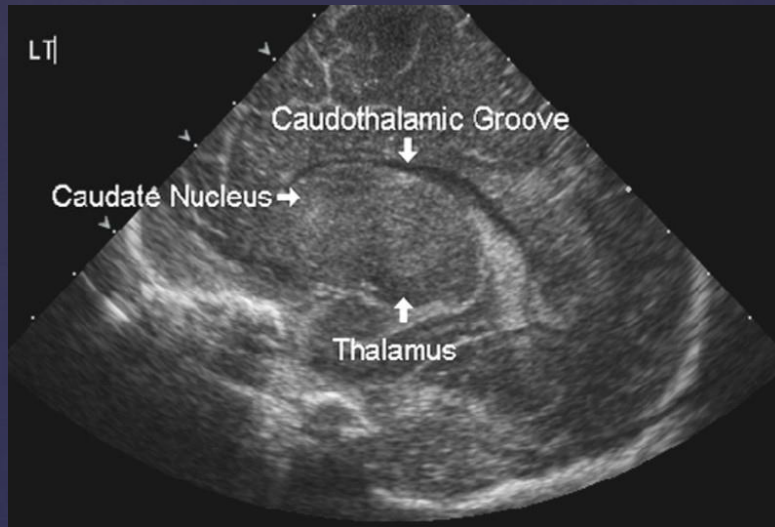
Proper alignment of the transducer will demonstrate all midline structures.

Lateral Ventricle & Germinal Matrix Region

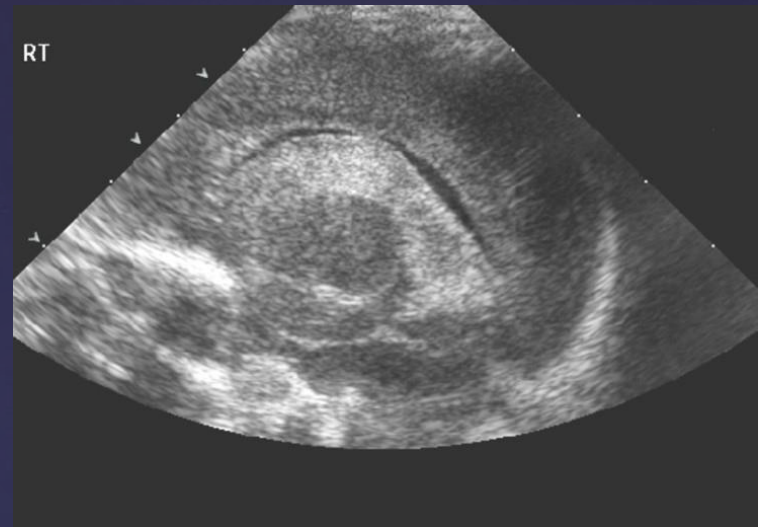


Parasagittal View

{ Normal

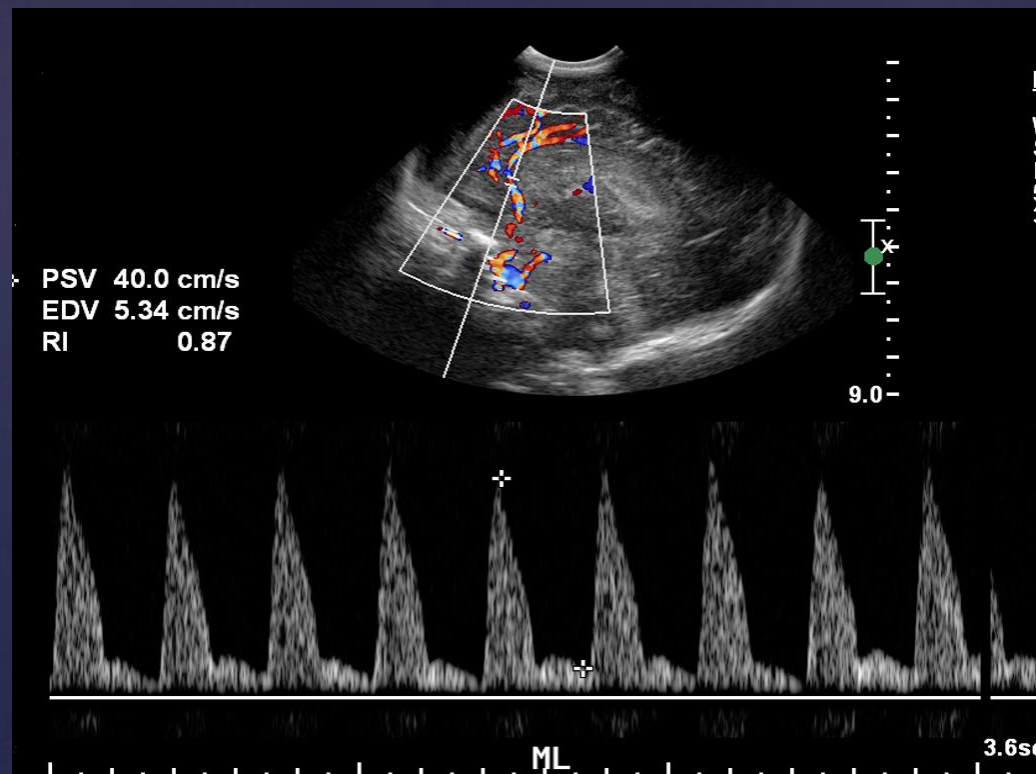


{ ABNORMAL



In the image on the right, what appears to be choroid plexus extending into the LV anterior horn is actually interventricular hemorrhage.

Middle anterior cerebral artery resistive index (RI)

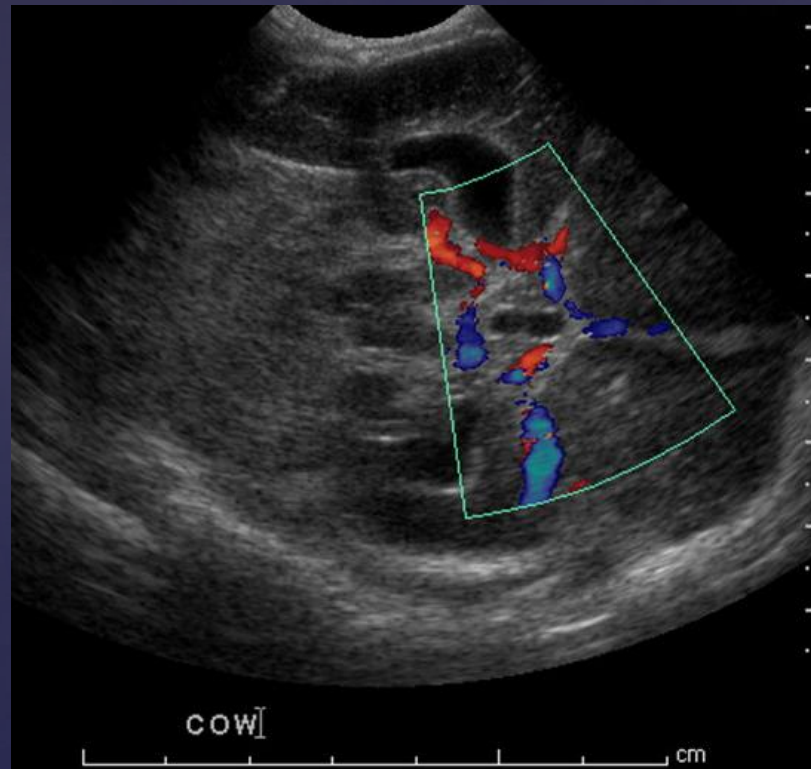


Additional Views



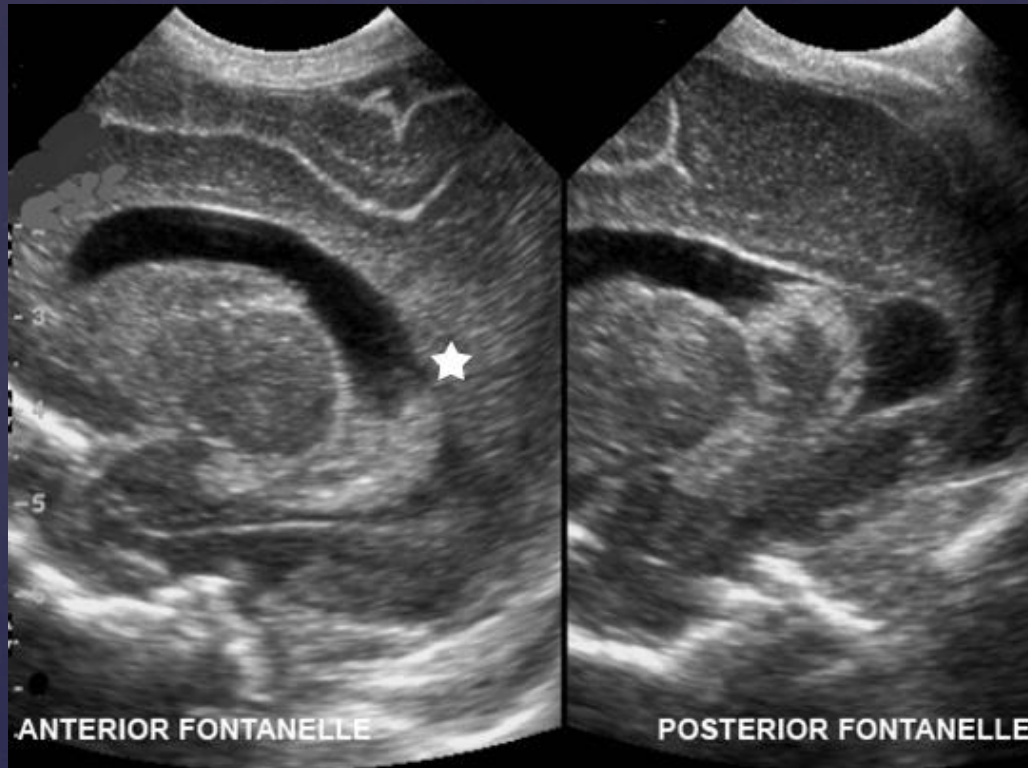
Mastoid Foramen Approach

Transtemporal approach



COW = Circle of Willis

Additional Views



Posterior Fontanelle Approach.

Note the diminution of periventricular echogenicity (asterisk) with the posterior fontanelle approach.