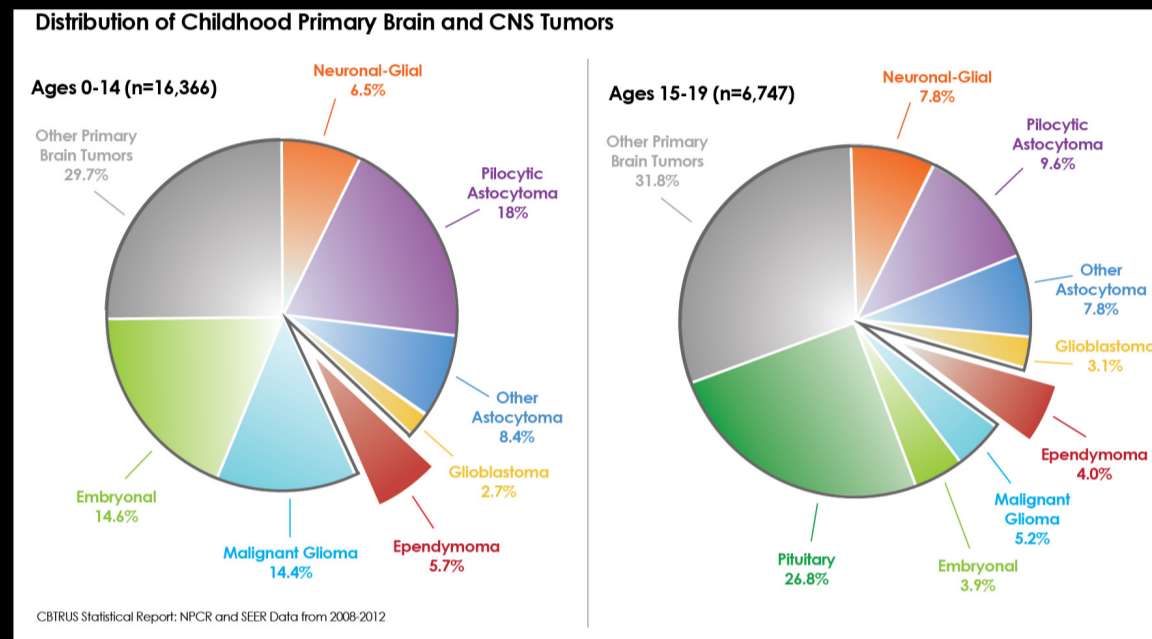
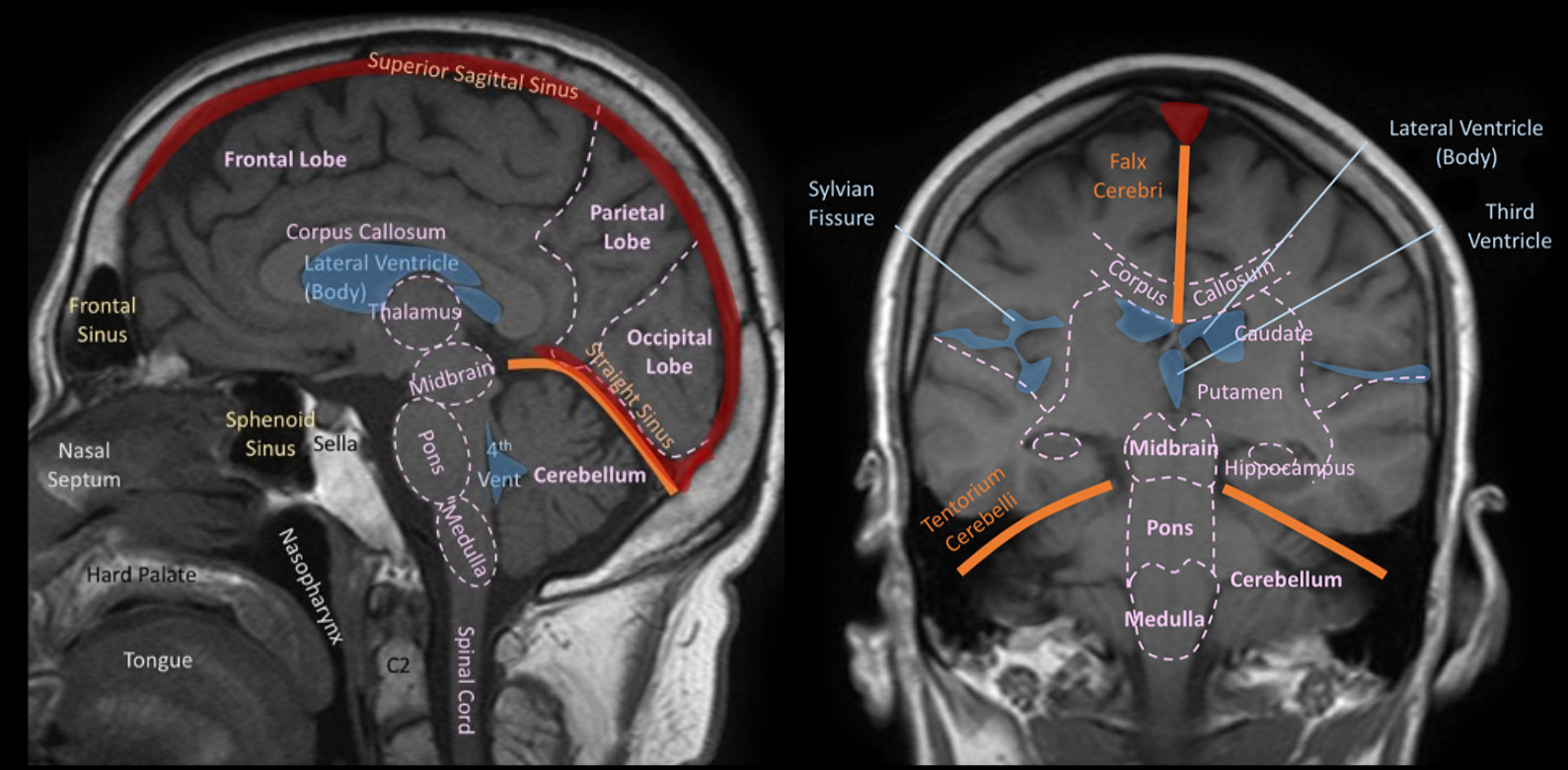


# Pediatric CNS Tumors

## General Management Strategy of Newly Diagnosed Pediatric Brain Tumors

- Airway, breathing, circulation stabilization
- Neurosurgery/neuro-oncology consultation
- NPO + IVF. Avoid dehydration.
- Pre-surgical laboratory tests (electrolytes, CBC, coagulation studies, blood type and cross-matching)
- Intravenous steroids (dexamethasone) with GI-protective agent after discussing with NSx
- Magnetic resonance imaging of the brain and spine with and without intravenous contrast
- Ensure appropriate Na levels
- R/o elevated ICP and if evidence of intracranial hypertension, STAT NSx evaluation
- Preoperative endocrine laboratory tests for suprasellar tumors
- Ophthalmologic examination
- Seizure prophylaxis for patients presenting with or at high risk for convulsions
- Social work consultation
- Lumbar puncture for CSF cytology and tumor markers (for suspected CNS germinoma) is generally performed 7 to 10 days postoperatively if there are no contraindications



	INFANT	CHILD	TEENAGER
<b>SUPRATENTORIAL</b>			
Low-grade astrocytoma	•	•	•
High-grade astrocytoma	•	•	•
Ependymoma	•	•	•
Choroid plexus tumour	•	•	•
Mixed glial and neuronal tumours	•	•	•
PNET and ATRT	•	•	•
Pineal tumours	•	•	•
<b>POSTERIOR FOSSA</b>			
Ependymoma	•	•	•
Low-grade astrocytoma	•	•	•
Medulloblastoma	•	•	•
Choroid plexus tumour	•	•	•
<b>SPINE</b>			
Low-grade astrocytoma	•	•	•
High-grade astrocytoma	•	•	•
Ependymoma	•	•	•

### Signs and symptoms of pediatric central nervous system tumors based on tumor location

Tumor location	Presenting signs/symptoms
Cerebral cortex	Headache, seizures, hemiparesis, hyperreflexia, clonus, sensory loss, speech disturbances, memory deficits, personality changes
Posterior fossa	Nausea and vomiting, headache, abnormal gait and coordination, papilledema, abnormal eye movements
Brain stem	Cranial nerve deficits, gait and coordination disturbances, nystagmus, focal motor weakness, signs of increased intracranial pressure including headache and papilledema
Spinal cord	Radicular pain and/or weakness (symptoms correspond to level of lesion), loss of bowel/bladder control, gait abnormalities
Optic pathway	Visual disturbances, proptosis, nystagmus
Hypothalamus	Endocrine disturbances including diabetes insipidus and growth failure

