

# Infantile Hydrocephalus In Grownups

Why it is different?

Why it is more difficult

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# Conflicts of Interest

- I have a minor consulting arrangement with Codman Corporation for the development of shunt system
- I do not believe that this creates a conflict of interest in this presentation.

# Etiology Of Hydrocephalus

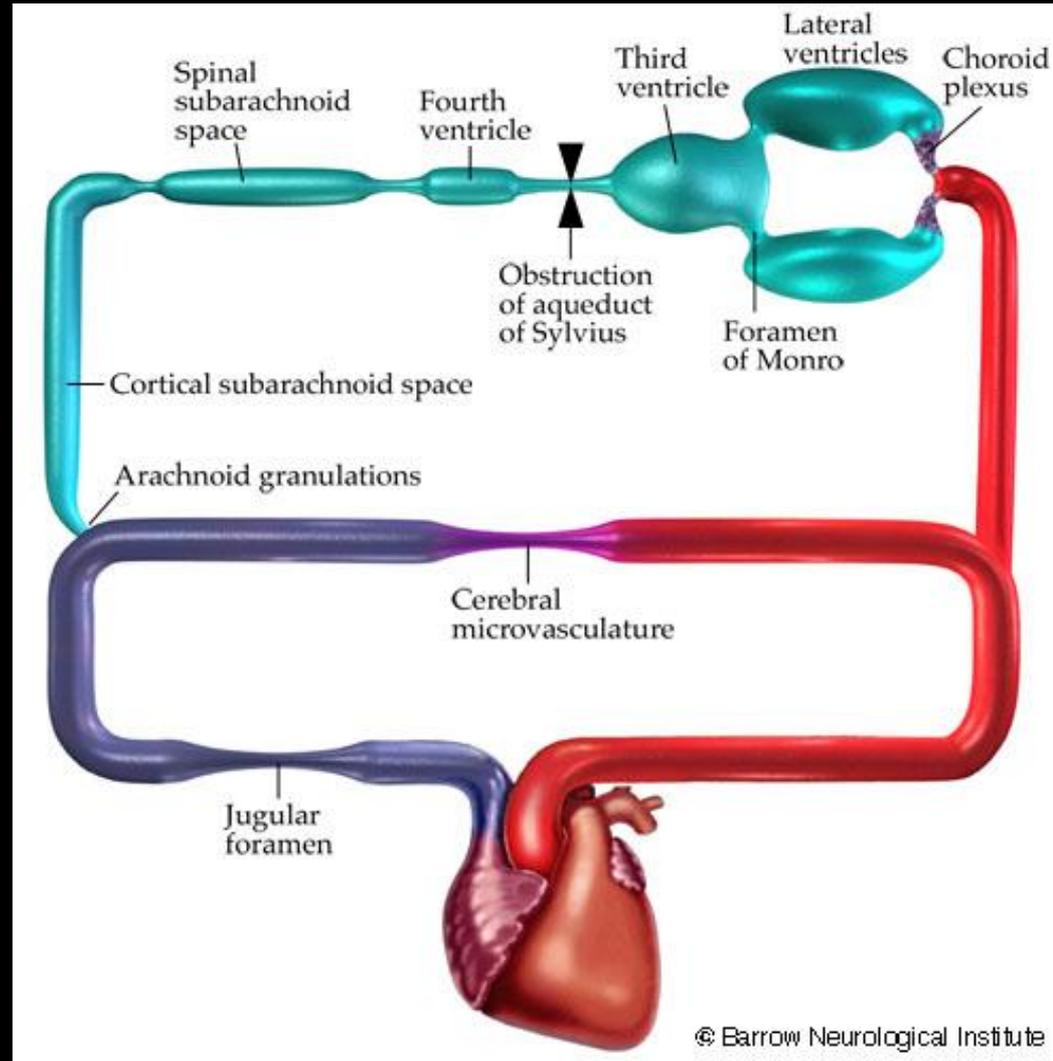
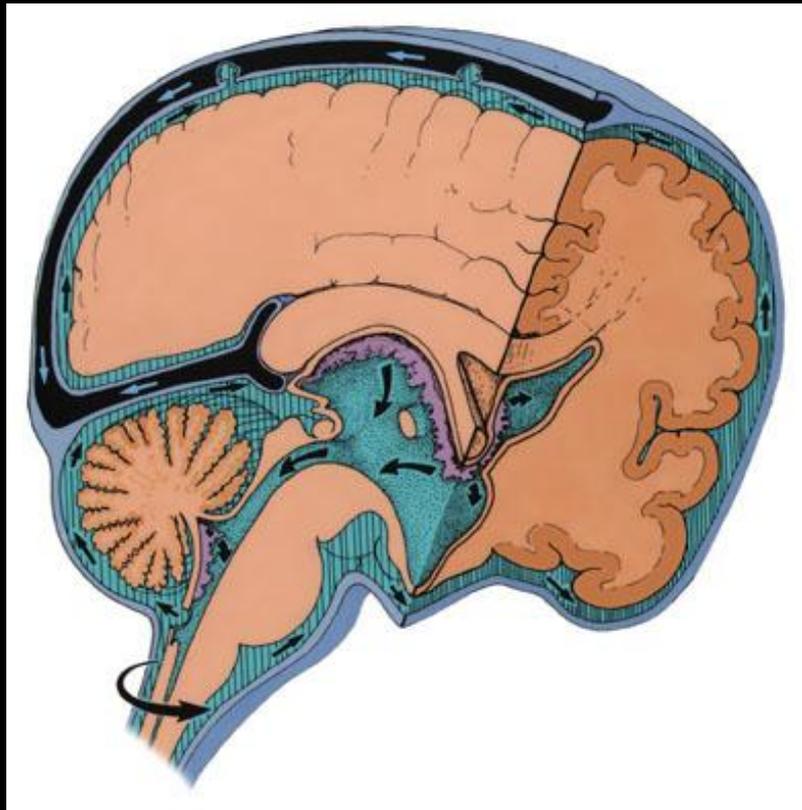
- **Adults**

- Tumor
- Hemorrhage
- Infection

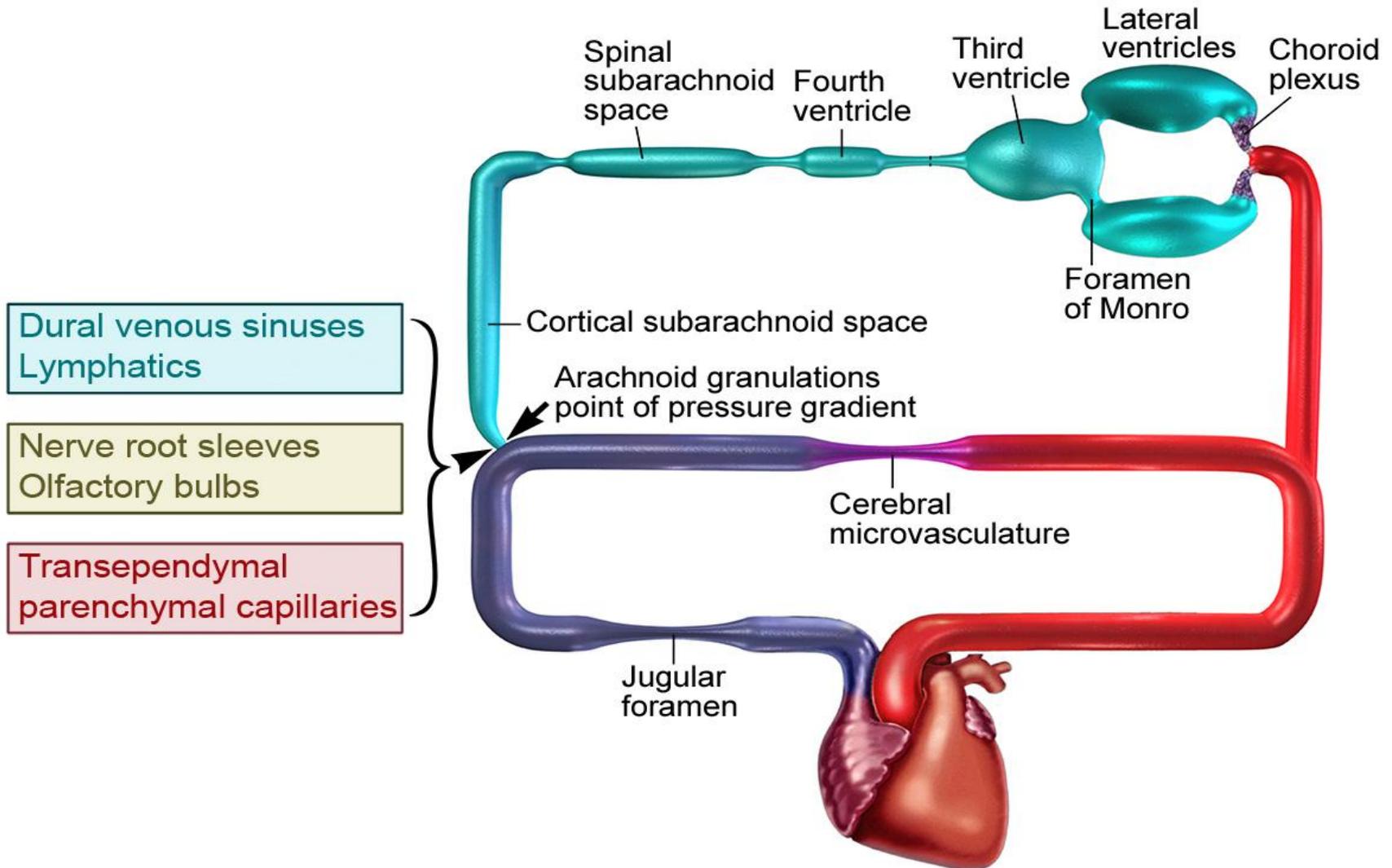
- **Infants**

- Same plus
- Congenital anomalies
- Venous hypertension
- Any or “all”

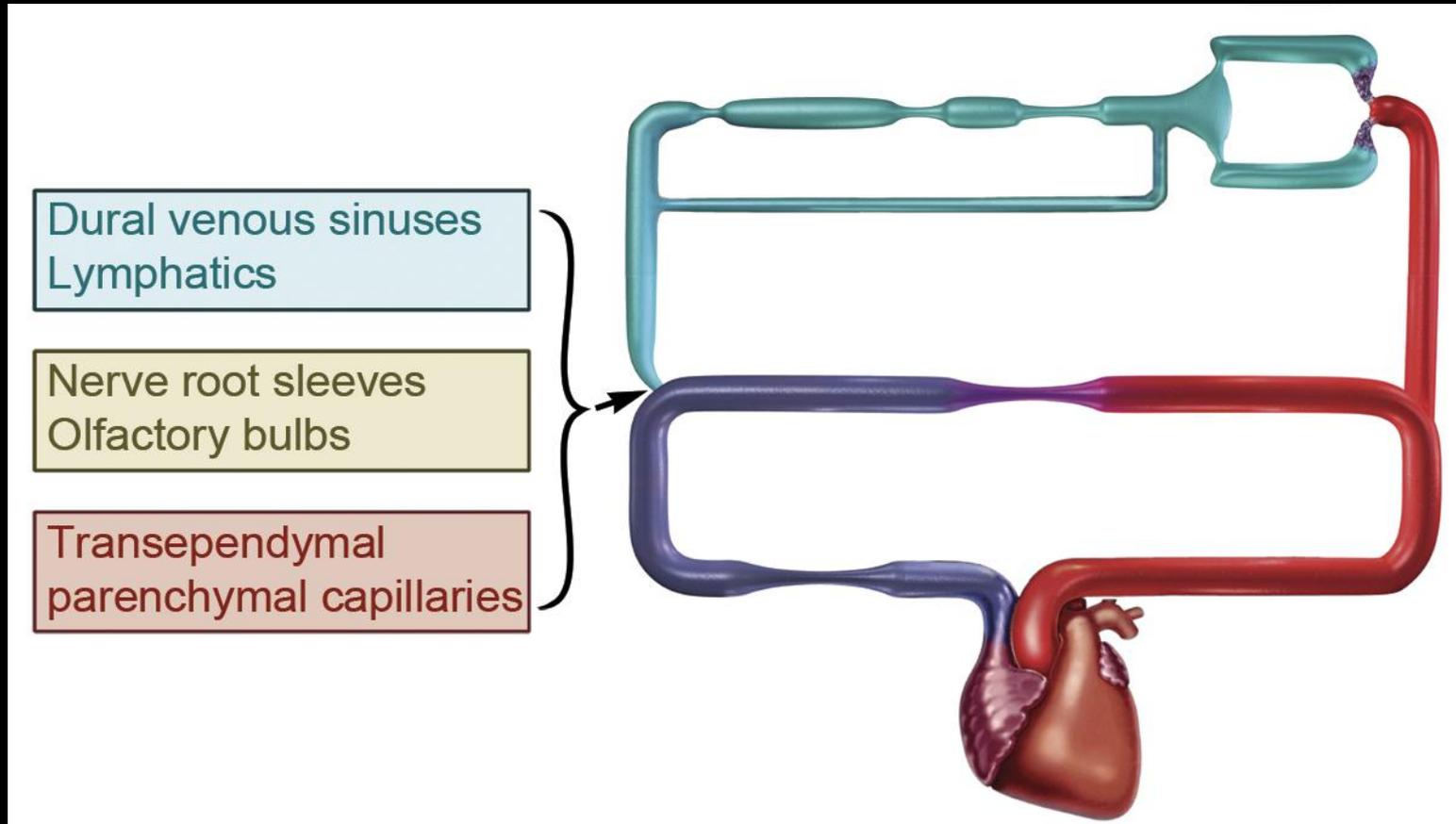
# How it Began



# After Consensus Meetings



# What Is Accomplished by Performing an ETV?



# Unique Pathophysiology



- Open Fontanel
- Distensible head
- Models of infantile hydrocephalus
- Pseudotumor in infants
- Hydrocephalus causes aqueductal stenosis

# “Normal Volume Hydrocephalus”

- One in five older children or adults with infantile hydrocephalus will have non-responding ventricles
- Pressures of 60 mmHg have been recorded without ventriculomegaly
- Essentially all have been turned away from ER as “crazy” or “drug seekers”

# Personality

- Generally pediatric neurosurgeons see themselves as managers of disease processes
  - Patients followed for decades
  - In my practice average contact to surgery ratio 11:1
  - Outcomes judged only after years or decades
- Generally general neurosurgeons see themselves as selecting patients for and performing surgery
  - Patients followed for weeks
  - Average C:S ration 4.5:1
  - Outcomes judged in acute situation

# Working with New Neurosurgeon

- Understand yourself
  - Point of obstruction
  - Headache vs. shunt failure
  - Type of shunt
  - Setting if programmable
- Understand what you want
- Trouble-shooting your problems

# CT Scans Vs Rapid sequence MRI



# Thoughts on the Present and Future of Pediatric Neurosurgery: Skull Base Surgery, Spinal Instrumentation and Neuroendoscopy

An Essay for the 25<sup>th</sup> Anniversary of  
the Founding of the International  
Society for Pediatric Neurosurgery

Child Nerv Sys, 1997, 13:476-81

# Conclusions

- Find a system where neurosurgeons are aware of shunt problems
- Maintain a personal medical record
- Medic-alert bracelet if ventricles don't enlarge
- Avoid Narcotics
- Be realistic but rapid sequence MRI is the best answer