



Pediatrics and Neurosurgery

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AAP SECTION ON NEUROLOGICAL SURGERY

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Commentary From Section on Neurological Surgery

The Section on Neurological Surgery (SONS) of the American Academy of Pediatrics was founded in 1998. The missions of SONS are to promote the highest standards of care for children with neurosurgical disorders, to advance the education and training of pediatric neurosurgeons, and to advocate for the health and well-being of children with neurosurgical disorders. SONS achieves its mission by providing a forum for pediatric neurosurgeons to share knowledge and expertise, by collaborating with other organizations involved in the care of children with neurosurgical disorders, and by promoting public awareness of these conditions.

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Highlighted Articles From *Pediatrics*

- Matson DD. [Hydrocephalus treated by arachnoid-ureterostomy: Report of 50 cases](#). *Pediatrics*. 1953;12(3):326-334
- Caffey J. [The whiplash shaken infant syndrome: manual shaking by the extremities with whiplash-induced intracranial and intraocular bleedings, linked with residual permanent brain damage and mental retardation](#). *Pediatrics*. 1974;54(4):396-403
- Jimenez DF, Barone CM, Cartwright CC, Baker L. [Early management of craniosynostosis using endoscopic-assisted strip craniectomies and cranial orthotic molding therapy](#). *Pediatrics*. 2002;110(1):97-104

First Quarter Century (1948 to 1973)

Matson DD. [Hydrocephalus treated by arachnoid-ureterostomy: Report of 50 cases](#). *Pediatrics*. 1953;12(3):326-334

Prior to the introduction of the unidirectional shunt valve and ventriculoperitoneal shunts, management of hydrocephalus underwent numerous iterations. One of these was the use of various techniques to drain cerebrospinal fluid (CSF) into the urinary system. In these cases, a nephrectomy was performed and then a shunt catheter was used to drain CSF into the ureter. Although no modern neurosurgeon would consider a nephrectomy in order to drain CSF, this was considered a viable option when death from progressive hydrocephalus was the alternative. Although these techniques are no longer employed, works such as this by Dr. Matson remain of historical interest in pediatric neurosurgery.

Second Quarter Century (1974-1998)

Caffey J. [The whiplash shaken infant syndrome: manual shaking by the extremities with whiplash-induced intracranial and intraocular bleedings, linked with residual permanent brain damage and mental retardation](#). *Pediatrics*. 1974;54(4):396-403

A radiologist by training, Dr. Caffey was one of the first to describe the constellation of findings among victims of abusive head injury. Although the term “whiplash shaken infant syndrome” has been replaced by “abusive head injury,” the fundamental finding of his work—that shaking, with or without impact, is a cause of significant intracranial injury—remains true.

Third Quarter Century (1998-Present)

Jimenez DF, Barone CM, Cartwright CC, Baker L. [Early management of craniosynostosis using endoscopic-assisted strip craniectomies and cranial orthotic molding therapy](#). *Pediatrics*. 2002;110(1):97-104

Today, neurosurgeons employ a wide variety of surgical techniques to correct craniosynostosis. However, prior to the work of Dr. Jimenez, these techniques involved obtaining maximum cranial exposure with attendant high blood loss, need for transfusion, and an extended length of stay in the hospital. In this and other manuscripts, Dr. Jimenez demonstrated that select patients with craniosynostosis could be treated through a minimally invasive, endoscopic-assisted approach. While the surgical techniques described by Dr. Jimenez have undergone some modifications over the years, the overall approach remains largely the same and is widely used today.