



Moyamoya

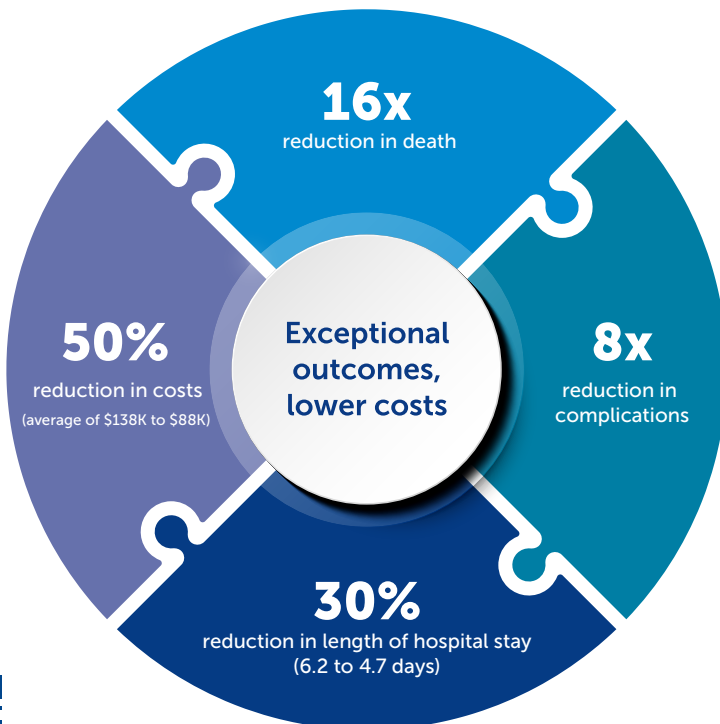
MOYAMOYA IS A RARE BLOOD VESSEL CONDITION that limits blood flow to the brain. Despite extremely rare rate of incidence, it accounts for some 6% of pediatric strokes in the United States. Left untreated, the condition has an up to **90% rate of severe or fatal stroke within five years, but surgery can reduce that risk by 18x — to about 5%**. Because moyamoya is so rare, few centers have the expertise needed to treat it, yet its progressive nature makes rapid treatment crucial.

About the Cerebrovascular Surgery and Interventions Center

The Cerebrovascular Surgery and Interventions Center at Boston Children's Hospital is an international leader in the treatment of moyamoya. Led by Edward R. Smith, MD, and Darren B. Orbach, MD, PhD, **it is the highest-volume center for surgical revascularization of moyamoya in the U.S.** The center takes a multidisciplinary approach to care and includes a diverse team of specialists in neurosurgery, neurointerventional radiology, neurology, anesthesia, nursing, and other fields.

Exceptional outcomes, lower costs

Data shows that specialized, high-volume medical centers with established pediatric neurovascular programs provide better clinical outcomes for moyamoya with lower costs. In this research, **Boston Children's Cerebrovascular Surgery and Interventions Center was the highest-volume center with the best outcomes:**



Leading the way in surgical innovation

Boston Children's surgeons have developed groundbreaking revascularization procedures that have been shown to significantly reduce the risk of stroke in pediatric patients. Pioneering research and clinical innovations from Boston Children's have now been included as recommended best practices in the national guidelines for pediatric stroke.

Pial synangiosis:

- An effective surgical procedure developed at Boston Children's to treat moyamoya
- CSIC's co-director Edward Smith, MD, is one of the most experienced surgeons performing this surgery in the U.S. today, with some of the best results worldwide.
- We perform more than 50 pial synangiosis procedures every year.

Pial pericranial dural (PiPeD) revascularization:

- A new procedure that combines the rapid and safe parts of indirect grafting, while allowing a remarkable flexibility to treat nearly any child
- First developed at Boston Children's, which has the largest case experience

Boston Children's Hospital leads the way in creating new standards in moyamoya care

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