

## Young Children May Not Respond As Well To Chiari Surgery

Previous research has established that pediatric Chiari patients tend to have better surgical outcomes than adults; but now a group of neurosurgeons from Australia has found that very young children may not respond as well as older children. The neurosurgery group reviewed 65 surgical pediatric cases and divided them into two categories by age: 6 years old or less (21 patients) and 7-18 years old (44 patients). To compare the outcomes, they used now widely prevalent Chicago Chiari Outcome Scale (CCOS) which assigns a score of 1-4 across 4 categories: pain symptoms, non-pain symptoms, functionality, complications. A score of 16 represents complete symptom resolution, full functionality and no complications. A score of 12 represents what the authors term a functional outcome. When they looked at the CCOS scores of each group they found that the older children had significantly higher scores with a very good 14.2 average, whereas the younger group averaged 12.1. Importantly, the surgeons also compared the CCOS scores by type of surgical procedure but found no differences. In addition to lower CCOS scores, the younger group also had to undergo additional surgeries at a much higher rate, 47.6% vs 13.6%, with shunt insertions and repeat decompressions representing the vast majority of the additional procedures.

**Source:** Chiari 1 malformation: age-based outcomes in a pediatric surgical cohort. Yates C, Campbell R, Wood M, Chaseling R, Tolleson G, Ma N. Childs Nerv Syst. 2020 Mar 4. doi: 10.1007/s00381-020-04556-z. Online ahead of print.

*Conquer Chiari's research updates highlight and summarize interesting publications from the medical literature while providing background and context. The summaries do contain some medical terminology and assume a general understanding of Chiari. Introductory information and many more research articles can be found in the [Conquer Chiari Library](#).*