# Is Cerebellar Hemorrhage a Common Brain Injury in Preterm Infants?



## **Glossary of Terms**

Cerebellum: comprises approximately 10% of the brain's volume and contains at least half of the brain's neurons! It's been recognized as the brain unit that regulates muscle tone and coordination of movement. More and more reports support the idea that it also contributes to non-motor functions such as cognition and emotion.

#### **Summary**

This study describes the frequency of cerebellar hemorrhage in premature infants. A group of preterm infants with cerebellar hemorrhage were compared to a group of preterm infants with no cerebellar damage. Of those with cerebellar hemorrhage, most had damage on only one side of the cerebellum, whereas few had extensive injury to both sides. Most infants with this type of cerebellar lesion also had injuries to other areas of the brain. Factors increasing risk for cerebellar hemorrhage included: lower birthweight, patent ductus arteriosus, the need for emergency caesarian section, and a low Ph level after birth. The lesions were associated with a higher mortality risk and early perinatal complications. In conclusion, cerebellar hemorrhage is an important complication of extreme premature birth and is increasingly detected by improved imaging techniques.

### What families and practitioners should know

- Cerebellar hemorrhage as well as other brain injuries commonly occur in preterm survivors placing them at risk for developmental problems.
- Imaging studies should carefully examine the cerebellum in addition to cortical and subcortical structures.
- Cerebellar hemorrhage is associated with increased mortality and morbidity.

#### Reference

Farley M, McMahon W, Fombonne E, Jenson WR, Miller J, Gardner M, Block H, Pingree CB, Ritvo ER, Ritvo RA, Coon H. (2009). Twenty-year Outcome for Individuals with Autism and Average or Near-Average Cognitive Abilities. Autism Research, 2, 109-118.