Craniosynostosis

National Institute of Neurological Disorders and Stroke (NINDS)

Source

National Institute of Neurological Disorders and Stroke (NINDS). Craniosynostosis Information Page.

Craniosynostosis is a birth defect of the skull characterized by the premature closure of one or more of the fibrous joints between the bones of the skull (called the cranial sutures) before brain growth is complete. Closure of a single suture is most common. Normally the skull expands uniformly to accommodate the growth of the brain; premature closure of a single suture restricts the growth in that part of the skull and promotes growth in other parts of the skull where sutures remain open. This results in a misshapen skull but does not prevent the brain from expanding to a normal volume. However, when many sutures close prematurely, the skull cannot expand to accommodate the growing brain, which leads to increased pressure within the skull and impaired development of the brain. Craniosynostosis can be gene-linked or caused by metabolic diseases (such as rickets)or an overactive thyroid. Some cases are associated with other disorders such as microcephaly (abnormally small head) and hydrocephalus (excessive accumulation of cerebrospinal fluid in the brain). The first sign of craniosynostosis is an abnormally shaped skull. Other features can include signs of increased intracranial pressure, developmental delays, or impaired cognitive development, which are caused by constriction of the growing brain. Seizures and blindness may also occur.