Craniosynostosis: Clinical and Epidemiological Perspectives  
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Craniosynostosis is a birth defect characterized by premature fusion of one or more cranial sutures, the fibrous connections between adjacent bones in the skull. These sutures allow passage of the head through the birth canal and permit the rapid brain growth that occurs early in life. Craniosynostosis occurs in approximately one in 2,000 births and usually requires surgical correction. Untreated, it can lead to an abnormal head shape, restriction of brain growth, and increased intracranial pressure. Craniosynostosis can be classified by which suture(s) prematurely closed (sagittal, coronal, lambdoid, metopic, or multiple) and by whether it is isolated or accompanied by other major defects or a syndrome (i.e., single-gene disorder or chromosome abnormality). Craniosynostosis has been associated with over 100 syndromes. Genetic and environmental risk factors for craniosynostosis have been identified, but in most cases, the cause is unknown. In this presentation, we will provide an overview of craniosynostosis, including a discussion of the different types and their prevalence, and of genetic and environmental risk factors that have been implicated in its etiology.