

Prevalence of 'flattened head' in infants and young children appears to be increasing

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The prevalence of plagiocephaly, a condition marked by an asymmetrical, flattening of the skull, appears to be increasing in infants and young children, according to a report posted online today that will appear in the August issue of *Archives of Pediatrics & Adolescent Medicine*.

"Plagiocephaly is characterized by unilateral flattening of the head either in the frontal or occipital [rear] region," the authors write as background information in the study. "The presence of plagiocephaly has reportedly increased since 1992 while the American Academy of Pediatrics (AAP) recommended that [infants](#) be put to sleep on their back to reduce the risk of sudden infant death syndrome, although the plagiocephaly is then an acquired and not congenital condition."

Reviewing data from the Texas Birth Defects Registry, Shane U. Sheu, M.P.H., from the Texas Department of State Health Services, Austin, and colleagues tracked reported cases of plagiocephaly from 1999 to 2007. During this time, reported cases of plagiocephaly increased more than 9-fold, from three cases per 10,000 live births to 28.8 cases. This resulted in 6,295 total cases with a definite diagnosis and was equivalent to an average annual increase of 21.2 percent per year. A large portion of the increase came from the Dallas/Fort Worth region where the prevalence of plagiocephaly increased 23.2 times, from 2.6 cases per 10,000 live births in 1999 to 60.5 cases in 2007.

A similar trend in plagiocephaly prevalence was evident in all

demographic subgroups identified, whether based on maternal age or race/ethnicity, infant sex, plurality or gestational age. All maternal groups based on education level showed significant increases in plagiocephaly diagnosis; however, the trend was greatest among mothers with less education. Additionally, the proportion of plagiocephaly cases from multiple births remained stable over time; however, the proportion of cases born preterm (premature) increased very slightly from 27.2 percent in 1999 to 29 percent in 2007.

"We observed a statistically significant increase in the prevalence of plagiocephaly in Texas from 1999 to 2007," the authors conclude. "A small part of this might have been due to delayed compliance with the American Academy of Pediatrics recommendation for supine infant sleeping and a slight increase in preterm births. It was definitely not due to changes in birth defect coding practice, trends in multiple births or trends in clinical conditions like torticollis [having a twisted neck with the head tipped to one side, while the chin is turned to the other] or oligohydramnios [condition in which a pregnant woman experiences a deficiency of amniotic fluid]. Because the plagiocephaly trend was observed mainly in patients visiting certain health care facilities, among mild cases, and among minimally invasive procedures, we suspect it may be due mainly to changes in available therapies and insurance reimbursement practices."

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