Delivery Even a Bit Early May Mean Developmental Delays

But study also suggests interventions can help children catch up to peers

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By Maureen Salamon
HealthDay Reporter

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THURSDAY, Feb. 17 (HealthDay News) -- Bucking the notion that being born a few weeks early has no discernible impact on babies, a new study indicates that "late preterm" infants face more developmental delays than their full-term peers and those delays may affect their school performance.

Researchers in Boston analyzed records from 6,300 term and 1,200 late preterm infants -- those born between 34 weeks and 37 weeks gestation -- from the Early Childhood Longitudinal Study-Birth Cohort, using equations to estimate the odds of mental or physical delays among the preterm set at the age of 2.

In mental skills, late preterm babies were 52 percent more likely than term infants to suffer severe delays and 43 percent more likely to experience milder limitations. In motor skills, the preterm toddlers faced 56 percent increased odds of severe delays and a 58 percent increased risk of milder ones.

The study is reported online Feb. 14 in the journal *Pediatrics.*

"Previously, these infants were just considered small full-term infants rather than preterm infants," said study author Dr. Melissa A. Woythaler, a neonatologist at Massachusetts General Hospital. "There's been a shift in how they're viewed."

Preterm births -- those in which babies are delivered before 37 weeks' gestation -- account for nearly 13 percent of the nation's 4.2 million annual births, according to the study. Late preterm births have risen 25 percent since 1990, from about 7 percent to 9 percent of all births.

In addition, 5 percent to 40 percent of U.S. births are now early elective deliveries, meaning that births are induced preterm without a valid medical reason, according to a recent hospital-by-hospital report from the Leapfrog Group, a national employer-driven hospital watchdog group.

Noting that many of these at-risk infants receive little or no specialized developmental follow-up, Woythaler's data included babies with at least 34 weeks' gestation from wide economic and racial backgrounds who received complete assessments near the age of 2.

The brain of a baby at 34 weeks' gestation weighs 35 percent less than it would at term, the study noted.

Social factors and gender had the greatest impact on the children's mental scores, the study said, with language spoken at home playing a key role. (Boys were most likely to have severe development delays.) In contrast, gestational age was the most important contributor to physical delays.

Researchers noted a few study limitations, including the lack of information on possible newborn medical complications and the possible weaknesses of infant developmental testing.

However, their findings are consistent with those of other recent studies of late preterm infants, they said. Researchers have found such infants are at higher risk for respiratory problems, worse academic performance and school suspension down the road.

"There's a reason why normal gestation is 40 weeks," said Dr. Marty Ellington Jr., chairman of the department of pediatrics at Lenox Hill Hospital in New York City. "If a child needs to be delivered for a maternal or infant medical condition, care has advanced where those children can do quite well. But we should never discount the importance of those two to four weeks. If we have a choice, we would want the child to go to term."

Woythaler said more research is needed to determine how to best help preterm babies suffering developmental delays reach the same level as their peers carried to term.

"Very premature infants automatically get referred to early intervention," she said. "Not these infants. Not all of these infants are doing poorly -- a lot are doing well and normally. Once we can pinpoint which infants can benefit from early intervention, that's the point we can do something."

Ellington pointed out that gender and medical issues that contribute to developmental delays in this group can't be changed, but "the social component is modifiable with respect to early intervention programs."

"When put into a whole, [the delays] can significantly impact a child's performance, particularly as they reach school age," he said. "They compound each other and make it difficult for a child to function in a normal classroom."

But the high cost of valuable early intervention programs -- typically including occupational, physical and/or speech therapy -- has caused many across the country to be eliminated, Ellington said.

"It's something very concerning, given the vast numbers of infants that are having these developmental problems," he said.

More information

Visit the University of Kentucky for more on late preterm births.