

Health: RESEARCH: EARLY BIRTHS

Near-term babies risk developmental delays: study

Infants born as late as 34 to 36 weeks were more likely to have behavioural problems and repeat kindergarten

TRALEE PEARCE

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Until recently, babies born early but not severely premature have been just about indistinguishable from babies born at full term: They weighed about the same, they looked the same and were considered just as healthy.

But there's new evidence to suggest that some of those infants are at a heightened risk of experiencing developmental delays and other learning problems as they reach school age.

A new study, using health and education data collected by the Florida government, compared 7,152 children born in Florida at 34 and 36 weeks gestation, known as late preterm, or near-term, with 152,661 infants born between 37 and 42 weeks gestation, which is considered the safest time period to deliver a baby.

The preterm infants were at a 36 per cent greater risk for a developmental delay or disability such as autism spectrum disorder than the infants born at term.

The risk of suspension in kindergarten for behavioural problems was 19 per cent higher for late preterm babies. They were also more likely to be held back to repeat kindergarten and even showed more signs of a developmental disability in prekindergarten.

"I see these babies all the time and I find myself doing the same thing. You treat them as normal newborns," says lead author Steven Morse, a practising neonatologist and associate professor of pediatrics at the University of Florida. "I started to wonder, are they really fine?"

Dr. Morse says looking at this population of babies is a relatively new area of research. While some recent work has been done on the increased risks of such immediate medical problems as respiratory distress for this group, most of the focus has been on the extremely premature babies born at 28 weeks or less.

But even babies without serious medical issues are at risk, says Dr. Morse. Still, he doesn't want his findings to alarm parents. The absolute risk of disability remains low: a little over 4 per cent for late preterm babies compared to just under 3 per cent for the term babies.

"Where it's important is for obstetricians, pediatricians and educators to realize that these children aren't necessarily the same," he says.

The findings, which were adjusted to control for such factors as socio-economic status, may also help reset a growing tendency for both the medical community and expectant parents to consider inducing birth or have a planned c-section early, even without any medically indicated reason.

"The technology has become so great and the care for these babies has progressed so much that overall they do very well," he says. "People get lulled into thinking 'Oh, they should be fine. It's okay if we're one week early.' And that translates into two or three weeks early. The next thing you know, a month before your due date feels okay."

Dr. Morse says the next step is to obtain further education records for these same children as they enter middle school and high school. At the same time, he hopes to follow a new set of babies from birth using brain scans to search for physical evidence of differences. Previous research has found that the size of late preterm infants' brains are about a third smaller in volume and immature compared with the brains of term infants, says Dr. Morse. Brain scans may explain why the baby's brain develops differently when it's inside the womb than after birth.

Toronto neonatologist Shoo Lee, who was not involved in this study, says Dr. Morse's work adds to a growing body of research into previously unknown risks of late-preterm deliveries. As the director of the Canadian Neonatal Network, Dr. Lee is currently working with others to design a multiprovince study that will look at exactly the same population here.

There are more than 15,000 late preterm babies born every year in Canada. "If even a third of them have difficulties, that's a large number of babies," says Dr. Lee, who practises at Mount Sinai Hospital in Toronto.

Knowing more, he says, may lead to better surveillance of children whose early births could not be avoided, while increasing efforts to deliver more babies at a more ideal 39- to-40 weeks gestation.

"Nature has a way of doing these things," he says. "When the baby is ready, nature tells us the baby is ready. When we interfere too much, it's not a good thing."