

# Preterm birth linked to lifelong health issues

**The healthcare implications of being born premature are much broader and reach further into adulthood than previously thought, according to a long-term study of more than a million men and women by Duke University and Norwegian researchers.**

Preterm birth contributes to several long-term quality of health issues, including lower educational achievement, lower rates of reproduction, and an increase in the likelihood that future offspring will be born preterm and with complications, according to researchers at the Duke Medical Center.

The analysis appears in the March 26 issue of *Journal of the American Medical Association*.

Preterm birth, meaning birth before 37 weeks of gestation, is the leading cause of infant mortality. Research has documented the short-term complications as well as the long-term disabilities survivors must cope with.

“When a baby is born preterm, we tend to focus on the short-term risk of complications,” said Geeta Swamy, MD, a maternal-fetal medicine specialist at Duke, and lead author of the study. “While it is true that the risk of complications is highest in the immediate time period including hospitalization and the first year of life, that risk continues into adolescence. And the earlier you’re born, the higher the risk. Those who are born extremely prematurely are more likely to have complications throughout their lives.”

Working with colleagues at the Norwegian Institute of Public Health, Swamy and fellow researchers at Duke used a national population-based registry containing birth and death data to analyze how preterm birth affects long term survival, subsequent reproduction and next-generation preterm birth. The population studied spanned 20 years, from 1967 through 1988. Births occurred on or after 22 weeks and through 37 weeks gestation.

The study found:

- Boys born between 22 and 27 weeks had the highest rate of early childhood death.
- Reproduction rates were considerably lower for men and women born preterm when compared to those born at term. Reproduction increased in direct proportion to higher gestational age.
- Women born preterm were more likely to experience recurrent preterm birth and an increased risk of adverse outcomes in their offspring. A similar pattern was reported for fetal stillbirth and infant mortality among women born preterm.
- The lower the gestational age, the greater the risk of having less education.

Gestational age plays a very large role in overall health, Swamy said. Low birth weight has been the traditional indicator of how well a baby will do. However, Swamy now believes gestational age may be an even stronger predictor.

In addition, she says the research raises an important question concerning the long-term effects of advances in prenatal and neonatal care. “Preterm survival is improving now because of interventions we have in pregnancy and neonatal care. However, it may be that we’re improving survival while adversely affecting the overall health and quality of life in the long run.”

Source: Duke University

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