

# SOUTHWESTERN NEWS

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## **HOW LITTLE IS TOO LITTLE FOR A BABY'S SAFETY? UT SOUTHWESTERN RESEARCHERS SHED NEW LIGHT ON SIZE AND MORBIDITY/MORTALITY IN NEWBORNS**

DALLAS – April 22, 1999 – The smallest 3 percent of infants born at term and of the same gestational age are at the greater risk of death or disability – compared to the 10 percent previously believed to be in danger, UT Southwestern Medical Center at Dallas researchers report.

The study in the April 22 *New England Journal of Medicine* brings good news to many parents worried about undersized newborns.

“The good news is that babies apparently need to be a lot smaller than originally thought to be at greatest risk,” said Dr. Steven Bloom, assistant professor of obstetrics and gynecology, who conducted the study with Drs. Donald McIntire and Brian Casey, assistant professors of obstetrics and gynecology, and Dr. Kenneth Leveno, professor of obstetrics and gynecology.

The study included approximately 127,000 newborns at Parkland Memorial Hospital. They were grouped according to gestational age and weight. Infants were compared to others in their gestational age group. A baby born at 40 weeks, for example, would be in the lowest 3 percent in size if it weighed below 5 pounds 13 ounces. It would be in the lowest 10 percent if it weighed less than 6 pounds 6 ounces.

For pre-term infants, the researchers did not find a specific threshold below which infants fared poorly. Instead the risk of adverse outcomes for pre-term babies, such as respiratory disease and neonatal death, increased as the baby's growth decreased.

Although it has been known that babies born too early are in danger, this latest study showed that babies born both too early and too small are in double jeopardy, researchers said. According to the National Institutes of Health, about 250,000 low-birth weight infants are born in the United States annually. While most low-birth weight infants are born prematurely,

(MORE)

## NEWBORNS – 2

about 40,000 born at term suffer from intrauterine growth restriction.

“No one has known for sure before whether there is a threshold weight below which morbidity and mortality are significantly greater or whether that threshold varies at different developmental stages,” Bloom said. “We suspect that the tenth percentile is too high a threshold because too many babies normally destined to have lower birth weights are included instead of just those who are small due to problems with the pregnancy.”

Because the serious problems common in term and pre-term infants differ, the researchers worked out appropriate standards for the two groups. Among the indications of trouble in the term babies were a need for a mechanical ventilator, low Apgar scores, infection and seizures.

Pre-term infants, who face special difficulties because of delivery before development is complete, were monitored for respiratory failure, intracranial hemorrhaging and the necessity of intestinal surgery.

“Normal”-sized babies were used for comparison to the two groups.

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