

Premature babies benefit from adult talk, study finds

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Starting in intensive care unit, 'conversations' appear to aid language development.

(HealthDay)—Premature infants face a number of challenges, including a known risk of language delay. But a new study suggests that exposing "preemies" to more adult language in the neonatal intensive care unit can increase their language abilities at 18 months.

"Parents have the power to make a difference in their child's development and academic success. Just by enjoying your child—singing, playing, telling stories—while riding in the car or having dinner, sharing your day with them," said the study's senior author, Dr. Betty Vohr, a professor of pediatrics at the Alpert Medical School at Brown University in Providence, R.I.

That type of quality time should be a part of a baby's time in the [neonatal intensive care](#) unit (NICU), according to Vohr. "The brain is a

marvelous computer. It's enhanced the more it's stimulated," she explained.

But oftentimes in the NICU, people are quieter. Nurses and physicians may not interact much with the infants, and parents' visiting hours may be limited. Vohr said some working parents choose to work during the time their [babies](#) are in the NICU to save their family leave for when the baby comes home, which could limit the time they're available to talk to their baby.

"We need to provide more information to families about the importance of talking to babies," said Vohr.

One of every eight babies born in the United States is preterm—meaning born before 37 weeks of pregnancy, according to the U.S. Centers for Disease Control and Prevention.

The study, published online Feb. 10 in *Pediatrics*, included 36 preterm infants. Their average age of gestation was 27 weeks and their average weight was 2.7 pounds, the authors said.

At what would have been the 32nd and 36th weeks of gestation—an average of approximately 5 and 9 weeks after birth—the researchers recorded 16 hours of sounds the babies heard using a digital language processor.

The processors kept track of adult words, conversational turns and child vocalizations. A conversational turn was when a vocal sound from the infant was followed by an adult's response within 5 seconds, or the opposite—when an adult spoke, followed by a noise from the child within 5 seconds. Crying didn't count as a vocalization.

The average total word count heard by an infant was 1,289 words at 32

weeks. There were an average of 15 conversational turns and 77 child vocalizations, according to the study. By 36 weeks, adult words reached 8,255. Conversational turns occurred on 36 occasions, and child vocalizations were heard 153 times.

The researchers assessed the babies' [language skills](#) at 7 months and 18 months corrected ages. Corrected age means the age the baby would have been if born at full-term. So, a baby born at 28 weeks was born 12 weeks (3 months) early. To determine its corrected age, you subtract that 3 months from the baby's actual age. So, a 10-month-old born 12 weeks prematurely would have a corrected age of 7 months.

The investigators found that for every increase of 100 adult words per hour a baby heard at 32 weeks, there was a 2-point improvement in language scores, according to the study. At 36 weeks, every 100 adult words per hour heard led to a 1.2-point increase in language scores at 7 months.

"Children learn from conversations going on around them, but the back and forth communication is the most important," said Vohr. "Parents can make such a difference. Early language predicts language skills later on."

Vohr and her colleagues believe this early communication is so important that they have volunteers called "cuddlers" who spend time with the babies in the NICU and talk to them.

One expert called this a "useful" study. "It's always good to be able to point to a study as proof of something that we intuitively believe," said Lauren Kobritz Krause, chief of speech-language pathology at La Rabida Children's Hospital in Chicago.

"Kids born prematurely are at risk of having speech and [language](#) delays or deficits. This has the potential to help, and it promotes the idea of the

benefit of mom or another family member being there and talking to the baby," said Kobritz Krause.

"Talking and interaction helps with vocabulary development. Talk to your child and be part of their world, and include them in your world throughout the day," she suggested.

More information: Learn about preemies' developmental milestones from the [American Academy of Pediatrics](#).

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