

C-section babies may be more likely to fail first hearing test

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Experts concur parents should not be alarmed by finding, as problem is typically temporary.

(HealthDay) -- Infants delivered by Cesarean section are three times more likely than babies delivered vaginally to fail their first hearing test, which is performed shortly after birth, new research from Israel finds.

However, the researchers noted that parents should be aware of this difference, but not alarmed, because this hearing "problem" is typically temporary.

Dr. Tatiana Smolkin, a neonatal researcher at Rambam Medical Center in Haifa, Israel, who worked on the study, said the loss generally disappears after 72 hours.

"Fluids are retained in the [middle ear](#)," which seems to affect neonatal hearing, she explained.

U.S. experts agreed that parents should take the information in stride.

"I think the take-home message is if you have had a C-section be prepared there is a higher chance your baby is going to fail one of these [hearing tests](#), whether or not they have a hearing loss," said Dr. Richard Rosenfeld, chair of otolaryngology at SUNY Downstate, in Brooklyn, N.Y. He co-chaired the committee that crafted the American Academy of Pediatrics' guidelines on the management of the middle ear problem known as otitis media with effusion.

Dr. Dennis Woo, a pediatrician at the University of California, Los Angeles, Medical Center in Santa Monica, said the problem is often transient, and if the testing were done three or four days after birth, the results would likely be very different.

"There is nothing worrisome here as far as for the parents," Woo said.

To be sure, parents need to follow up with the baby's pediatrician, the doctors agreed.

For the study, the Israeli researchers evaluated 1,653 newborns. Of these, 1,170 were delivered vaginally; the other 483 by C-section.

They looked at the babies' results on their first hearing test, known as the otoacoustic emissions test.

Otoacoustic emissions are sounds given off by the inner ear when the [inner ear](#) structure known as the [cochlea](#) is stimulated by a sound. When the sound occurs, the outer hair cells of the ear vibrate. This produces an almost inaudible sound that throws an echo back into the middle ear.

The person conducting the test inserts a small probe into the ear canal to measure the sound; those with certain levels of hearing loss do not

produce these very soft sounds.

The test can also detect the presence of middle ear fluid, which can temporarily affect hearing.

In the study, nearly 21 percent of the C-section [babies](#) failed the test, while only a little more than 7 percent of those delivered vaginally did. The test was done before the babies were 48 hours old.

The risk of failing the test, overall, was also higher in those babies who had it before they were a day old.

In the United States, about one-third of births are Cesarean.

The study, published online June 11, appears in the July print issue of the journal *Pediatrics*.

As the babies got repeat tests, most had normal results. The researchers had to refer 10 who did not -- five delivered vaginally, and five C-section babies -- for a different test that evaluates auditory brainstem functioning. All of these infants passed this test.

The researchers suggested that the first hearing test after C-section should preferably be delayed until the baby is beyond 48 hours old.

C-section babies may be "a little different," Woo agreed.

Something about the vaginal birth process may help dissipate the middle ear fluid, said Rosenfeld, who wrote the book "A Parent's Guide to Ear Tubes," about the procedure done when middle ear fluid persists.

Parents might consider asking their pediatrician to delay the test beyond the first two days after birth. "It makes sense," Woo said.

More information: To learn more about infants' hearing, visit the [American Speech-Language-Hearing Association](#).

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