

More evidence that Zika causes microcephaly

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Baby with microcephaly. Photo: U.S. Centers for Disease Control and Prevention

(HealthDay)—A rigorous new study of 91 Brazilian babies strongly supports the point that the mosquito-borne Zika virus can cause the

devastating birth defect microcephaly.

In [microcephaly](#), [babies](#) are born with a smaller-than-normal head and an underdeveloped brain. Thousands of such cases tied to maternal infection with Zika have already been recorded in Latin America—especially in Brazil.

Back in April, the U.S. Centers for Disease Control and Prevention declared that maternal infection with the virus was, in fact, a cause of infant microcephaly.

That announcement followed an exhaustive study on the subject published the same week in the *New England Journal of Medicine*. That study found consistent patterns linking Zika infection with microcephaly, borne out by fetal and infant autopsy reports.

The new study, published Sept. 15 in *The Lancet Infectious Diseases*, seems to offer even clearer evidence, its authors said.

The research involved 30 babies born with microcephaly between mid-January and the beginning of May at eight public hospitals in Pernambuco State, located in northeastern Brazil.

The Brazilian and British research team noted that prior studies had not followed the "gold standard" methodology of comparing babies with microcephaly against a set of closely matched (but healthy) controls.

So, the team compared rates of Zika infection between each of the babies born with microcephaly against two babies born without the defect the next morning at the same hospitals.

Based on tests of each baby's blood and cerebrospinal fluid, as well as blood tests from their respective mothers, the researchers found Zika

infection to be much more prevalent in babies with microcephaly.

For example, while the blood of 80 percent of the mothers who gave birth to a baby with microcephaly tested positive for Zika, that was true for only 64 percent of the "control group" mothers.

Results from the babies were even more telling, the study authors said.

"When we compared laboratory-confirmed Zika [virus infection](#) in newborns with and without microcephaly, we found that about half of the cases with microcephaly had laboratory-confirmed Zika virus infection, compared to none of the healthy controls," study co-author Dr. Thalia Velho Barreto de Araujo said in a journal news release. She's with the Federal University of Pernambuco in Recife.

The study is ongoing, and the researchers said they plan to expand their investigation to 200 cases and 400 matched controls. They stressed that these first analyses remain "preliminary."

Also, the investigators added that the reliability of blood and [cerebrospinal fluid](#) tests to screen for Zika virus in newborns is still unknown. That might explain why 19 (59 percent) of the microcephalic babies did not test positive for Zika, they suggested.

In a commentary that accompanied the study, two experts in pediatric disease said that microcephaly may only be one of a number of conditions linked to maternal Zika infection.

"As our knowledge of the clinical repercussions of congenital Zika virus infection advances, it becomes apparent that microcephaly is only one possible adverse outcome among a range of disorders that might be part of congenital Zika virus syndrome," wrote Drs. Patricia Brasil, of Fiocruz RJ, Rio de Janeiro, and Karin Nielsen-Saines, of the department

of pediatrics at the University of California, Los Angeles.

More information: The U.S. Centers for Disease Control and Prevention has more about [mosquito-borne diseases](#).

This Q & A will tell you [what you need to know about Zika](#).

To see the CDC list of sites where Zika virus is active and may pose a threat to pregnant women, click [here](#).

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