

Study highlights heart-health issues for adults who were preemies

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AndyL/E+, Getty Images

Erin Wegener was a tiny baby facing enormous challenges.

Born at 29 weeks' gestation, she weighed only 1 pound, 14 ounces. Her first three months were lived in the neonatal intensive care unit. Family photos show her covered in gauze, sustained by too many tubes to count. Her entire hand just about fit inside her father's wedding ring.

Her parents were warned she could face a lifetime of mental and physical challenges. But today, she's working as a music therapist in the same hospital system in Grand Rapids, Michigan, where she was born.

The doctors' most dire warnings didn't come true, and her premature birth has never been much of a factor in her adult life. "I feel very thankful that I have not had a lot of [health](#) issues growing up," she said.

Wegener was born in 1985, just a few years before breakthroughs in treatment allowed many more extremely low birth weight babies to survive. As that wave of children enters adulthood, a new study is revealing details about possible risks to their [heart](#) health.

Research published Monday in the American Heart Association journal *Hypertension* compared cardiovascular health among two groups of Australians born in 1991 and 1992, as they turned 25 years old. The 165 participants in the first group were born extremely preterm (earlier than 28 weeks' gestation) or with an extremely low birth weight (below 2.2 pounds). The 127 participants in the second group were born at term and at normal weights.

Researchers looked at several factors related to [heart health](#) and calculated a cardiovascular health score for each person. Overall, the extremely premature/low birth weight group had a less favorable rating than the term-born group, specifically for [blood pressure](#), exercise capacity, fasting blood glucose (a marker of diabetes) and visceral abdominal fat ("belly fat," which has been linked to heart disease, cancer and more).

It was known that people born early are prone to such problems, said the study's lead author Dr. Jeanie Cheong, a professor at the Royal Women's Hospital in Melbourne, Australia. But the new research sought to tie the risks together for an overall view, she said. "We looked at all these factors cumulatively, rather than individually, thus providing a holistic view to health."

Her work is part of the ongoing Victorian Infant Collaborative Study, which has been monitoring a group of Australians since their birth in 1991 or 1992. That's the era when some treatments became widespread—such as corticosteroids for at-risk pregnant women to accelerate lung growth of babies in utero or using wetting-like agents called surfactants to treat immature lungs in premature babies.

Those treatments led to what Cheong called an exponential rise in survival over a short period for preemies. Before the 1970s, the survival rate of extremely preterm babies was below 10%, she said. By the early 1990s, that rate had soared to nearly 70%. It's now at 87%, according to a separate study published recently in *BMJ Open* that Cheong led.

But the new study confirms other investigations about preemies' long-term cardiovascular risk and adds details, said Dr. Anne Monique Nuyt, a professor of pediatrics at the University of Montreal and head of neonatology at CHU Sainte-Justine hospital in Montreal. She was not involved in the new research.

"It's one of the very first reports showing changes during adult years in individuals who were born very preterm." Because they evaluated the participants at age 18, researchers discovered, for example, that the preterm group gained more weight between 18 and 25 than the normal birth weight group.

Nuyt, co-leader of a separate long-term study of premature infants, said

the new work also confirmed earlier findings of gender differences in preemies' future heart risks. Males scored worse for blood pressure, exercise tolerance and belly fat.

Cheong said the findings shouldn't worry individuals born early. But "it is even more important for them to have close health surveillance and adopt healthy lifestyle choices, something that we all should do regardless," she said.

The new study also showed the rate of smoking among former preemies is as high as in the general population, which Nuyt called worrisome. After all, many required oxygen right up until their parents took them home.

"We know smoking is very bad for the lungs. And it's very bad for the heart, and it's very bad for blood pressure. So if there's one group that should not at all smoke, it's these extremely low birth weight or extremely preterm individuals," said Nuyt, who co-wrote a review paper published recently in *Hypertension* that called for greater awareness of the links between [premature birth](#) and heart problems.

"All physicians, all [health care providers](#) should be asking their patients, 'Do you know your birth weight? Do you know whether you were born very tiny or very premature?'" she said.

Wegener, now 35, isn't aware of any heart issues. And as the mother of three—with another baby due in April—she's grateful for what she considers the miracle of her survival and long-term health. "I feel very fortunate."

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