Pitt study provides guidelines on managing epilepsy during pregnancy

'Anyone who is pregnant is very scared. Every stage is so unknown," says new mom Marne Braddock. 'Having epilepsy on top of that, you feel even more scared and vulnerable'

ANYA SOSTEK
Pittsburgh Post-Gazette
asostek@post-gazette.com

JAN 17, 2026 4:00 AM

Page Pennell, a neurology professor and epilepsy researcher at the University of Pittsburgh, can remember a time when women with epilepsy were told that they shouldn't have children.

Those ideas are now outdated, and research by Pennell has shown that, when medication is properly managed, women can have safe and seizure-free pregnancies.

The issue has been disseminating information on exactly how to adjust those medication levels beyond specialists at academic medical centers.

A study published last month in the journal Neurology by Pitt researchers does just that, with detailed tables and charts describing levels of various epilepsy medications using data collected during the MONEAD, or Maternal Outcomes and Neurodevelopmental Effects of Antiepileptic Drugs, study, which began more than a decade ago and involved nearly 300 participants.

“They shouldn’t have to see an epileptologist to have a safe pregnancy,” said Pennell, chair of the department of neurology at Pitt’s medical school. “This is a how-to guide.”

Marne Braddock, of Regent Square, who was diagnosed with epilepsy at age 15, was always under the impression that she’d be able to have children. But still, the details were fuzzy. She had heard, for example, that women with epilepsy should take four times the recommended amount of folic acid — a recommendation she discovered was outdated, after receiving care from Pennell.

As a patient of Pennell’s, Braddock’s medication management began even before she became pregnant. Medication levels generally need to be adjusted upward during pregnancy, to account for changes in how the body metabolizes drugs during pregnancy. In preparation to become pregnant, Braddock worked with Pennell to get her set on the lowest optimal dose.

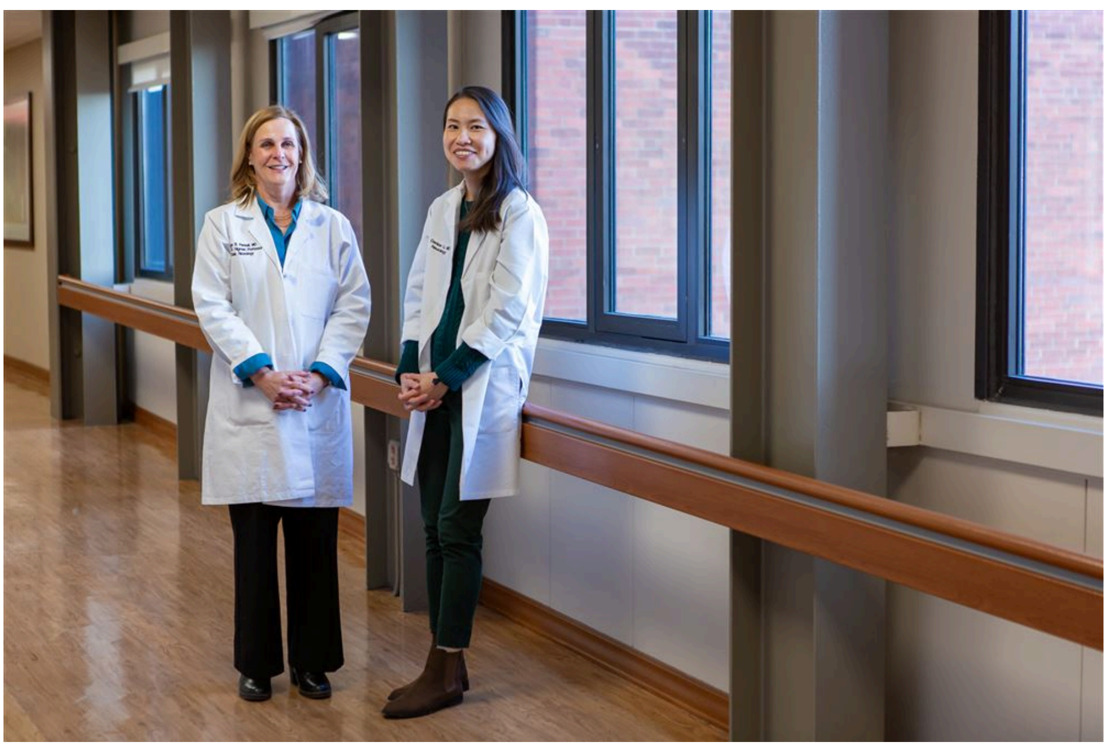
Marne Braddock plays with her 20-month-old daughter, Ellie, at their home in Regent Square.
(Justin Guido/Post-Gazette)

Using data Pennell had collected over decades of research, those levels were adjusted throughout Braddock's pregnancy and also through the postpartum period. Braddock, now 37, had a seizure-free pregnancy, and gave birth 20 months ago to a daughter, Ellie.

"Anyone who is pregnant is very scared. Every stage is so unknown," said Braddock. "Having epilepsy on top of that, you feel even more scared and vulnerable. Having epilepsy and always being told, 'There's hardly any research on this,' and then you are put in the hands of someone who is on the front lines of all the research, it makes a tremendous difference."

The paper in Neurology details exactly how medication levels were adjusted for participants in the MONEAD study, which followed women with epilepsy from pregnancy until six years postpartum. The research analyzed 299 pregnant women in 20 different sites across the country, including in Pittsburgh.

The paper deals with medication levels not just during pregnancy but also during the postpartum period, which can be hard to navigate without extensive data because the body changes back to its baseline relatively quickly — within two or three weeks.



Page Pennell, chair of the department of neurology at Pitt's medical school, with Denise Li, a neurology assistant professor and UPMC neurologist.
(Courtesy of UPMC and University of Pittsburgh Health Sciences)

“Sometimes there can be a lot of focus on the pregnancy, and you get to the end and make all these changes. What happens to mom when baby is delivered?” said Denise Li, a UPMC neurologist and an assistant professor in the division of women’s neurology at Pitt. “There’s not as much guidance on postpartum compared to pregnancy.”

Li sees patients regularly, but knows that there are many many women out there who aren’t able to see specialists, and that many generalist doctors are trying to best manage their care.

“There is definitely a shortage of neurologists and also a lot of people who might not have easy access to a neurologist. Sometimes they are managed by their primary care doctor,” she said. “We have this information that’s available but, in terms of getting it out to the people, how can we turn it into practical ways to manage these patients during this really eventful time in their life?”

First Published: January 17, 2026, 4:00 a.m.
Updated: January 19, 2026, 11:11 a.m.

Anya Sostek is a Post-Gazette health reporter who has been with the organization since 2004. A Duke University graduate, she previously worked as a business, education, news and features reporter.

asostek@post-gazette.com

Popular in the Community