

USA
TODAY

Life

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Strokes strike the young

Even infants suffer the brain attacks; the damage can be permanent

By Kathleen Fackelmann
USA TODAY

At 3 a.m. on Easter 1997, Kathy Keene of North Conway, N.H., got the kind of wake-up every parent dreads. Her older daughter told Keene that 4½-year-old Logan was vomiting. By the time Keene got to Logan, she was limp.

When Logan started to lose consciousness, Keene called 911.

COVER STORY

Keene did the right thing. A blood vessel in Logan's brain had exploded, and she had suffered a stroke.

Logan Keene's story runs counter to the pervasive myth that strokes hit only the elderly. So do the stories of Erin Wesley of Okemos, Mich., who suffered a stroke when she was 2½, and C.J. Hoffman of Spring Hill, Fla., who had a stroke at 2 weeks.

Those names, and many more, represent a hidden health problem that needs urgent attention, experts say.

Research suggests that about two children per 100,000, or about 1,400 kids age 17 and under, suffer strokes in the USA each year. But experts say that estimate is far too low.

"I'm sure that we miss a number of these strokes," says Jill Hunter, pediatric radiologist at Children's Hospital of Philadelphia. Doctors may dismiss symptoms of stroke in kids, or they may think pediatric stroke is so rare that it's not worth pursuing, she says.

"It's frightening how underrecognized it is," says Gabrielle deVeber, a childhood stroke specialist at the Hospital for Sick Children in Toronto.

Doctors who graduated from medical school even a decade ago were not taught about pediatric stroke. It simply didn't exist, deVeber says.

Since 1992, deVeber and her colleagues have tracked pediatric strokes in Canada. In the past few years, the team has documented a sharp rise in the number.

"The more we look, the more we're going to see," deVeber says. There's no nationwide tracking of pediatric strokes in the USA, but experts here say the trend is likely to be the same.

Powerful imaging techniques are fueling the rise in reported pediatric strokes. Doctors now have the tools to peer into the brain to see even pea-size damage caused by a small stroke.

The belief that children don't suffer from strokes almost certainly means that scores of kids go without treatment. Others get a diagnosis months or even years after the stroke, says E. Steven Roach, a pediatric stroke expert at the University of Texas Southwestern Medical Center in Dallas.

Without fast, appropriate treat-



By Greg DeWaher, Lansing State Journal. For USA TODAY

Early victims: Erin Wesley, 3, with her dad, Jeff, suffered a stroke at age 2½. Kathy Keene gets daughters Logan, 6½, right, and McKenzie, 9, ready for school. Logan had a stroke at 4½.



By Jonathan Taylor for USA TODAY

► National experts answer readers' questions about stroke. 7D

ment, such children run the risk of irreversible brain damage, experts say. There are two main types of strokes.

One is caused by a blood clot that gets lodged in an artery supplying the brain. The second occurs when a

blood vessel in or near the brain ruptures.

Either way, the nourishing supply of fresh blood to the brain is cut off. Within minutes, brain cells start to die. A stroke — in essence a brain attack — is the result.

The loss of blood to the brain can cause the warning signs of a stroke: sudden weakness on one side of the body; loss of speech or trouble talking; loss of vision; sudden headache; and unexplained dizziness or fainting spells.

But even classic warning signs sometimes fail to get a fast diagnosis of stroke in a child.

Take the case of 3-year-old Erin Wesley. In September, Jody Wesley noticed that her daughter's arm and leg had gone limp and that her speech had become slurred.

Wesley remembers thinking that it looked like Erin was having a stroke.

She also recalls thinking that toddlers don't suffer strokes.

But Erin, then 2½, was having a stroke. Even worse, the pediatrician and the hospital didn't recognize it. Her parents were told she had suffered a concussion, and Erin was sent home.

Several days later, after Erin had suffered another bout of weakness, the correct diagnosis was made. Using magnetic resonance imaging (MRI), doctors took a picture of Erin's brain. They found a stroke.

A computed tomography (CT) scan of Erin's brain had failed to find the stroke. The MRI is more powerful and can reveal even small areas of stroke damage, deVeber says.

The Wesleys don't know why Erin suffered a stroke. In 25% of pediatric stroke cases, deVeber says, doctors don't know why the stroke occurred. That lack of information leaves parents like the Wesleys with a lot of questions.

According to the National Stroke Association, two-thirds of strokes occur in people older than 65. As people age, diseases that have gone unchecked for decades, such as clogged arteries, start to take their toll.

For the most part, kids don't suffer from heart disease. They generally don't get high blood pressure, adult-onset diabetes or many of the other diseases that raise adults' risk of stroke.

The landscape of pediatric stroke looks very different from its adult counterpart. Many underlying conditions can put kids at risk. Roach says. Heart defects are the No. 1 cause of strokes in children, he says.

A child born with a hole in the heart or a valve defect can develop a blood clot because of abnormal blood flow, he says. If that clot shuts off a brain artery, the child can suffer a stroke.

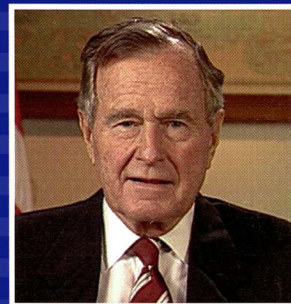
Sickle cell anemia is another big reason for strokes in kids. In this painful genetic disorder, blood cells frequently take on an abnormal sickle shape and can block blood vessels, including those in the brain.

Many kids have hidden problems with the way their blood clots, deVeber says. Because they're clot-prone, they're also at risk of stroke.

Logan Keene suffered from another cause of strokes in kids. The New Hampshire preschooler was born with arteriovenous malformation, or AVM. AVM is a tangle of arteries and veins deep in the brain. A large artery often is pumping blood at high pressure directly into a thinner-walled vein. Sometimes the pressure bursts the wall of the vein.

Please see COVER STORY next page ►

George Bush says "Be Stroke Smart"



A Public Service Announcement
from the National Stroke Association

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