

ntil February 15, 2005, Tedy Bruschi was as blissfully ignorant of the risks of "brain attack" as most of us are. In fact, when David Greer, M.D., told the New England Patriot linebacker that he'd suffered a stroke, Bruschi was incredulous.

"I didn't think I heard him correctly," Bruschi recalls. "The only place I'd heard the word stroke was on the golf course."

Thirty-one years old, Bruschi was happily married to his college sweetheart, Heidi, and raising three young boys. His football season had just culminated with the Patriots winning their third of the previous four Super Bowls and Bruschi being selected to his sport's all-star game, the Pro Bowl. At the peak of his physical powers, the linebacker never imagined he was a candidate for stroke.

THE STROKE OF DAWN

But Bruschi awoke in the early morning hours of February 15th with his fists clenched and arms raised, experiencing an "odd" feeling in his left arm and leg. Trying to get out of bed, Bruschi fell down and had to crawl to the bathroom. His equilibrium was off, his left side was numb, his muscles were weak, and

Back in Play

Tedy Bruschi's Post-stroke Return to the NFL.

BY TODD FARLEY

his head ached. Still, because pain was part of Bruschi's life as a professional athlete, he tried to shrug off the discomfort.

"I thought it was from the Pro Bowl two days before," Tedy remembers. "It never occurred to me something was really wrong."

He took some Tylenol and tried to fall back asleep. But when Heidi spoke to her father (a physician's assistant in Arizona) at 10 a.m., Bruschi was getting scared. He had "the worst headache ever," and when his son entered the bedroom, Bruschi couldn't see the boy until he appeared on Bruschi's right side. When Heidi's father said to get help immediately, Bruschi didn't argue.

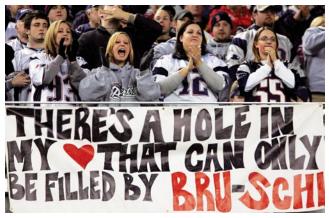
SEVEN HOURS IS A LONG TIME

Hearing a diagnosis of stroke, Heidi burst into tears, imagining it would debilitate her husband. Bruschi was equally pessimistic. "I thought I'd never be the same again," he says. "When I thought of stroke, I didn't think of a full recovery."

Those fears were not unfounded. Most people don't know it, but stroke is the third-leading cause of death in the United States (behind heart disease and cancer) and the leading cause of disability. A stroke, or "brain attack," occurs when a blood vessel carrying oxygen and nutrients to the brain bursts or is clogged, preventing the brain from getting the blood it needs.

By the time Bruschi's stroke was diagnosed, at 11 a.m., nearly seven hours had passed since its onset. Patients suffering from an ischemic stroke—cause by a vessel being clogged by a blood clot—can be given the clot-busting drug tissue plasminogen activator (tPA) within three hours of its first symptoms. But because Bruschi's had begun much earlier, Dr. Greer couldn't administer the drug.

ALL HEART: Patriots fans cheer during Bruschi's first game back after a stroke, October 2005; Bruschi walks off the field after a hard-fought loss against the New York Giants in Superbowl XLII, February 2008.



"You can't really undo a stroke once you're beyond a certain time window," says Dr. Greer, assistant professor of neurology at Harvard Medical School in Cambridge, MA. "The further we are from when the stroke starts, the less luck we have treating it."

A HOLE IN HIS HEART

At Massachusetts General Hospital, Bruschi was stabilized to prevent another stroke. A CT angiogram showed the major blood vessels leading to his brain weren't blocked, but an MRI showed that Tedy had suffered an ischemic stroke in the back, right side of his brain. An echocardiogram revealed that Bruschi—like 25-30 percent of the population—had what is called a patent foramen ovale, a hole in the heart that allows blood to pass between the atria, or upper chambers of the heart. In Bruschi's case, this hole contributed to his stroke.

Leaving the hospital after three days of observation, diagnostic testing, and treatment, Bruschi was experiencing vision and coordination problems, but he had survived. A surgical procedure was scheduled to repair his heart by sealing the patent foramen ovale, but all Bruschi wanted was to return to a normal life with his young family. He eventually began taking steps to officially retire from the National Football League.

"In my mind it was impossible I would ever play again," Tedy says.

RECOVERY TIME

While recovery from stroke depends on a number of factors—including the severity of the brain injury, its location and size, the cause of the stroke, and the patient's age and overall health—recovery is a definite possibility.

"The single most important variable is the severity of the brain injury," says Harold P. Adams, Jr., M.D., director of the University of Iowa Health Care Stroke Center in Iowa City, IA. "But a major-



ity of patients with minor strokes will have a complete or nearly complete recovery."

Bruschi's stroke was small and in a location that didn't cause permanent disability, and he was fortunate to be a young man in excellent overall health. Bruschi was put on blood thinners, and in March he had a procedure to repair the hole in his heart. Surgeons snaked a catheter up Bruschi's femoral vein to his heart and placed a tiny device over the hole to seal it. The device then healed into the heart under new tissue to become a permanent part of that organ.

Bruschi rehabbed diligently with Anne Jacobson, a physical therapist specializing in neurological disorders. At the start, he couldn't even balance without Anne's support. But after several weeks, Bruschi's symptoms improved; and after several months, they were gone. Still, the progress was never fast enough for this impatient athlete.

"I experienced every emotion across the spectrum," Bruschi says. "At times I was depressed, wondering why this happened to me. Other times I was determined. Being a pro athlete helped, having that understanding of how hard you have to work to succeed."

A FOOTBALL FIRST

Reminded of the lessons he learned as a professional linebacker, Bruschi started to daydream about a football comeback. A stroke victim returning to a job which required smashing full-speed into other enormous men might have seemed like a farfetched idea to some, but theoretically it was not.

"If a 31-year-old-man has a relatively mild-to-moderate ischemic stroke he might be able to return to professional sports," Dr. Adams says. "If the cause of the stroke had been treated, the likelihood of returning to usual activities would increase."

Dr. Greer told Bruschi "pretty early on" he might be able to

JEFF FOLEY/AMERICAN HEART ASSOCIATION

66 The most satisfying moments come when we work through our **biggest challenges**. **99**

play football again. By late spring the clot which caused Bruschi's stroke had dissolved into his bloodstream, the patent foramen ovale that was a conduit for the clot had been sealed shut, and Bruschi's three months of extensive physical therapy had restored him physically to a point where Anne Jacobson saw no reason he couldn't play.

"He was neurologically normal," Dr. Greer says. "No different than you or I."

But Bruschi wasn't willing to risk the progress he'd already made. Being able to wrestle with his rambunctious young sons was more important to him than tussling with a pack of pro football players, so Bruschi consulted a number of medical experts before he committed to return.

"If any one of them had doubted the combeback," Bruschi says, "Heidi and I would have stopped."

Not one of them did. One doctor explained that the stroke would affect Bruschi no differently than the tonsil surgery he had in college did. Another told Bruschi he could pursue his life however he wanted, "personally or professionally." Bruschi was ultimately given medical clearance to return, and on the night of October 16th, 2005, just eight months after the incident, stroke survivor Tedy Bruschi took the field again for the New England Patriots. He was named "Player of the Week" by the league after the Patriots' victory, as much for Bruschi's ten tackles as for the fact that he was on the field at all.

"I had to do it," Bruschi says, alluding to the many stroke

survivors who wrote and looked to him for inspiration. "People were counting on me to show it could be done."

Although Bruschi was the first stroke survivor to return to a career in professional football, Dr. Greer was confident about his patient's health. He wasn't completely sure that the skills and reflexes that had made Bruschi an All-Pro player would return, but he was convinced the linebacker would be safe.

"Tedy was neurologically normal or we wouldn't have let him play," Dr. Greer says. "While he could still get hit in the head and have a resultant stroke, that's no different than any other player."

As for the device that sealed shut the hole in Bruschi's heart, Dr. Greer didn't think that was going anywhere. "The heart is protected deep inside the chest cavity," he says, "and it exerts more energy on that device than would any chest blow."

The medical experts have been proven right, and Bruschi has lined up for the Patriots for the last three seasons without incident. His only concessions to the stroke that once threatened his life include taking a single Bayer aspirin each morning and visiting his doctor twice a year to ensure the device remains in place.

TEDY'S TEAM

"The most satisfying moments come when we work through our biggest challenges," Bruschi says. "This was my adversity and I'm better for the entire experience."

Dr. Greer has had other stroke patients who have "dodged a bullet" and fought courageously to return to their normal

life. What Dr. Greer thinks is extraordinary about Bruschi is that he's used his celebrity to raise awareness about stroke. "He's taken his obligation to educate others to get the care they need," Dr. Greer says

Bruschi has established Tedy's Team, an organization to aid stroke victims and raise awareness of the importance of recognizing its warning signs. "It's so important to know the warning signs," he says. "My biggest problem was that I didn't know I was having a stroke."

Todd Farley is a freelance writer who frequently reports on health, sports, and education. He lives in New York City.

To learn the signs of stroke, go to **giveme5forstroke.org** or call 1-888-4STROKE.

