

Eisenhower Neurosurgeon Corrects Devastating Injury

One Determined Patient's Excellent Outcome

By: Roxanne Jones

In July 2011, a bus owned by a river rafting company ran off the side of the road and rolled onto its top as it slid down a steep embankment in southern Colorado. There were 38 people on board, including then 36-year-old Priscilla Waggoner of Thermal, who was the most severely injured.

"The accident broke the C-6 vertebra in my neck," recalls this active wife, mother of two young daughters and yoga instructor. "It was shattered, and I came close to having a stroke because the veins that run alongside the spine could have been severed. With this type of injury, I also could have been a quadriplegic."

Waggoner remained in a local Colorado hospital for 10 days. There, doctors fitted her with a halo — a metal cage that fits over the head and is attached to the skull by pins and secured tightly around the chest. The hope was that the halo would immobilize her head and neck sufficiently to allow her shattered vertebra to heal over time.

"It was horrid," she says. "I couldn't turn my head, drive or even chop an apple."

When she returned to the desert, Waggoner saw a neurosurgeon for follow-up care. An X-ray revealed that the fracture wasn't healing properly and was, in fact, causing progressive deformity across her neck. Because of the complexity of Waggoner's condition, the neurosurgeon referred her to Farhad M. Limonadi, MD, Director, Neurosurgery, Eisenhower Neuroscience Institute for further evaluation.

"There is a time for conservative measures, and other times when we must approach a situation more aggressively but with the utmost respect for the patient's individual situation," Dr. Limonadi says. "We also take into account appropriate use of the latest technology and understanding of what is an acceptable level of risk."

In Waggoner's case, Dr. Limonadi felt that minimally invasive microsurgery to repair and stabilize the fracture offered her the best option to regain mobility and avoid further damage.

"...I came close to having a stroke because the veins that run alongside the spine could have been severed. With this type of injury, I also could have been a quadriplegic."
—Priscilla Waggoner

"He was very professional and honest about the potential risks," Waggoner says. "And he explained everything he was going to do so clearly. I trusted him."

On September 21, 2011, Waggoner underwent an involved, four-hour surgery.

"First we removed the halo around her head and neck while monitoring her neuro-physiologically with electrodes attached to her head, arms and legs," he says. "Then under the microscope, we dissected off the scar tissue and repaired the fracture by placing a small titanium plate over the fracture site, fusing segments above and below. Our hope was to achieve enough stability from our construct to avoid any potential need for additional surgeries for stabilization of her spine, utilizing pins and screws in the back."

The procedure was performed through a small incision in the front of Waggoner's neck and using a state-of-the-art surgical microscope that magnified the fine structures on which Dr. Limonadi was operating.

Waggoner spent only one night in the hospital after surgery, underscoring the significance of minimally invasive procedures.

Dr. Limonadi instructed Waggoner to wear a cervical collar (a neck brace) and to not move her neck at all for several months post-operatively.

"I did everything he said, sleeping and sitting a certain way even if it hurt other parts of my body," she says. In December, she was given permission to take the brace off during the day and now wears it if she occasionally overdoes it. Today, she not only has resumed driving and other everyday activities, but she's also practicing yoga again.

"She was a very compliant and positive patient, and she and her husband were very engaged in her care," Dr. Limonadi says. "She's smart, optimistic and worked hard. As a team, we achieved an excellent result."

Waggoner sums up her recovery this way.
"Dr. Limonadi performed a miracle."