

# Hang Time



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The relationship between Tom Hayes and time is at the center of his life. Like most people, he never has enough of it. Two daughters and one son, a rewarding job, a devotion to elite-level motorcycle and waterskiing competitions — his days cannot possibly fit into 24 hours. But somehow Tom is able to do it all, without ever losing his awareness of the seconds, minutes and hours that make up his day.

Tom comes by that awareness of time naturally — he is a third-generation watchmaker, trained to build and repair Rolex watches. As a result, he has been around exquisite timepieces his entire life, their beautiful faces relentlessly marking time.

Perhaps that awareness of time explains Tom's commitment to making every moment count. He is an elite competitor in waterskiing and motocross competitions, a rock climber and a golfer. He spends as much time as he can with his children, coaching their softball teams, teaching them to water ski. He spends time with his extended family at the private tournament-level waterskiing resort in Barstow where his father owns a vacation home, and where the entire family, now three generations of water-skiers, skis together and competes together.

Tom Hayes never seems to stop, but last year, there was a moment when time stood still. He was competing in a motocross meet, participating in a form of motorcycle stunt driving that involves extreme jumps. Tom had been competing nationally in motocross competitions for more than 10 years. His specialty was long, high jumps on his cycle, leaping the bike over hazards, and then being judged for style and distance. He was good at it...and, he loved it. "I started riding motorcycles when I was three years old, and split my time between riding and waterskiing. I began racing motocross at 17," says Tom. "It was what I enjoyed most — because I loved the big jumps and the high speeds."

In 2007, while practicing for a race, Tom jumped as well as he ever had — 100 feet over a large obstacle. But the impact of his landing was unusually hard. "I had overjumped my bike," Tom explains, "and when I landed the impact was so extreme, I herniated one of the discs in my neck. I hadn't fallen or crashed, I was literally injured by the impact of the landing.

"Because he hadn't crashed, Tom did not realize at first how severely he had abused his spinal column. But he soon noticed that he was not able to work for as long as he was used to — the hours of working on the micro-fine mechanisms of Rolex watches was causing pain and tingling in his arm. Used to injury, Tom assumed he had pinched a nerve in his neck, and that it would resolve itself. But the pain kept getting worse. "I've had seven orthopedic surgeries," Tom says. "Everything from my knee, to my wrist to my shoulder. But this was different. The tingling in my arm made it difficult for me to build and repair watches, and the pain was starting to prevent other physical activity."

Tom thought the tingling in his arm might have been caused by an old rotator cuff injury. His doctor did not agree, and referred him to Eisenhower's A. David Tahernia, MD, a fellowship-trained spine surgeon who is at the forefront of new surgical procedures designed to treat spine and disc injuries. Coincidentally, Dr. Tahernia had just begun a Food and Drug Administration (FDA) clinical trial for a new prosthetic disc that he was using in an innovative procedure, a Mobi-<sup>®</sup> cervical disc replacement.

After examining Tom, Dr. Tahernia determined he had a herniated disc between his C6 and C7 vertebrae. A herniated disc is the result of a rupture in the disc, which is the soft cushion that sits between each vertebrae of the spine. When the disc ruptures, its edges can push outside its normal boundaries, impinging on the surrounding nerves or the spinal cord. It is that pressure on the nerves that causes the severe pain, tingling and numbness that many patients with herniated discs experience.

"Tom was the perfect candidate for this procedure," Dr. Tahernia says. "He is young, in excellent shape, with very little arthritis or degeneration in his spine." Tom also met all of the detailed inclusion criteria the FDA requires. According to Dr. Tahernia, the procedure Tom received is an example of the newest innovations in spinal surgery, which preserve mobility. The injured disc is removed and replaced with a prosthetic disc.

In the past, a patient like Tom would have had his disc removed, and then the two vertebrae on either side would have been fused together to fill the void where the disc had been. Fusion addresses the patient's pain, as there is no longer a disc pressing on the spinal cord or nerves, but the flexibility of that joint is gone, impeding the patient's mobility.

By replacing Tom's damaged disc with a prosthetic disc, Dr. Tahernia was able to relieve Tom's pain and maintain his spine's flexibility. "The procedure takes about an hour and a half," Dr. Tahernia says. "We insert a metal plate at the ends of each of the vertebrae that adjoin the injured disc. We replace the injured disc with a prosthetic one with a polyurethane core. The disc settles into the space, and eventually his bones grow into the surface of the prosthetic, which stabilizes it."

Both Dr. Tahernia and Tom are pleased with the results. Tom says he was back home the next day and up and around very quickly. After six weeks, he was back at work and...waterskiing.

"I actually feel better than I ever have," Tom says. "The pain and tingling are gone, and I am back to all of my regular activities. Dr. Tahernia did an amazing job, and I cannot say enough about him and his team at Eisenhower."

Post-surgery, Tom did not need to restrict any of his movements. For Tom that means both the quiet, intense work of watchmaking, and the highflying jumps of waterskiing, with time for golf in between. He has given up motocross — not because he can't do it, but because he's at a point in his life when he'd rather not take any unnecessary risks. "I have three kids I adore," Tom says. "I want to spend every minute I can with them."

"I am extremely pleased with Tom's outcome," Dr. Tahernia says. "The only question we do not know the answer to yet is how the new disc will affect someone's ability to participate in high-impact activities over the long term. Will it be suitable for professional athletes like football players, for example? Could they return to the game after a surgery like this? We don't know. But, most people are not professional football players.... I am very excited about the future of these types of disc replacements."