**AYC Ecology North**

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**$8 Million Bionic Man Tops Chicago’s Willis Tower**

By Janoa Taylor, Yahoo Contributor Network, news.yahoo.com

On the heels of innovation, Zac Vawter successfully stepped up to the top of Chicago's Willis Tower on Sunday, November 4, with the world's first neural-controlled "bionic leg," which is worth $8 million. This [groundbreaking](http://news.yahoo.com/man-bionic-leg-climb-chicago-skyscraper-071740067.html) feat sent Vawter up 103 flights of stairs with one limb operated by a combination of mechanics and thoughts. He was accompanied by almost 3,000 participants eagerly raising money to further research at the Rehabilitation Institute of Chicago (RIC) as part of SkyRise Chicago, the tallest indoor stair climb event in the world. Seeing the $8 million bionic man prove this test with ease was nothing less than incredible.

**Story Behind the Bionic Man**

Although unfortunate, Vawter's 2009 motorcycle [accident](http://www.extremetech.com/extreme/139540-new-mind-controlled-bionic-limb-to-debut-with-a-103-story-stair-climb) has been instrumental in advancing science. After taking a turn too fast, Vawter crashed his motorcycle. Luckily, he was still conscious and was able to call for help. "I thought I had just broken my leg," Vawter said, but three days later, his right leg was amputated above the knee. His doctor performed a procedure called the [Targeted Muscle Reinnervation](http://www.ric.org/about/mediacenter/press/2012/ric-will-unveil-worlds-first-neural-controlled-bionic-leg-at-fou/) (TMR), which paved the way for Vawter being a research subject. This surgery allows amputees to have more control over their prosthetics, Vawter explained, "That's what's special about it." After joining the research team at the RIC, he has traveled back and forth to Chicago from his home in Seattle, where he is a software engineer.

**Vawter Climbs the Tower**

As I walked into the Willis Tower this past Sunday, participants were cheering and clapping for the hand-cyclists, who have experienced amputations or paralysis. Their hand-cycles were calibrated to equal climbing 2,109 stairs, or 103 flights of stairs. Kids gathered near some of them to offer hugs and kisses, and at that point, I realized how great the challenge would be for a person who only had one natural leg to climb the tower.

RIC staff were among the climbers. Katie Henry, a pediatric physical therapist from the RIC, said, "I work here, and I'm doing this climb for my patients."

I saw tired participants slowing down at the 61st floor, but Vawter breezed through without a hitch. He quickly made it to the top, and for a second, I wouldn't have known he had an artificial leg, judging by the grace in his walk.

Instead of leading with his natural foot and sort of picking up the prosthetic, Vawter can direct the [bionic leg](http://www.usatoday.com/story/news/nation/2012/10/31/man-bionic-chicago-skyscraper/1670741/) via his thoughts. If he wants to stand up, his brain signals to his nerves to push the bionic leg to stand, so the leg will push back, thus pushing him up. Leading up to the climb, he exercised on a machine that resembles an escalator each week, and when asked if he was nervous about the climb, he quickly responded, "I was more nervous about the press!"

After the climb, the biggest question on everyone's mind was how the bionic leg felt and held up on his journey to the top of Willis Tower, and according to Vawter, "Everything felt great. The leg is dramatically better." Even after changing the battery a couple of times mid-climb, he was able to pass a couple of other participants on his way up.

**What's Next**

When asked what the debut of the bionic leg and climb meant to him, Vawter said, "It's a milestone for research. I hope this draws attention to the Rehabilitation Institute of Chicago and what they are doing." The bionic leg will help amputees become more active and walk across the street faster.

Even though the bionic leg has debuted, it will take around 10 more years to fully develop it. Vawter said that he would continue to be a research subject whenever the RIC needs him. He is committed to helping others who need prosthetics and making life as normal as possible for them, as well as himself. Although he didn't get to take the bionic leg home with him this time, his contribution to this research may land him one in a decade or so.