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Latest prosthetic arms in Northeast IN Two Wells County men have two of 15 in the world

Wednesday, 27 May 2009
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FORT WAYNE, Ind. (WANE) - Hank Esmond and Phil Baker only live about ten miles apart in Wells County. But, they didn't know each other until their lives came together in a way they never could have imagined. Now they are both learning how to use new prosthetic arms.

On October 2, 2008, Esmond, 50, was working on a power line when something went wrong and he was electrocuted.



"I was 40 feet in the air and to this day we aren't sure what happened," Esmond said.



At first doctors had to remove his left hand and wrist at the mid forearm level. Two days later the right arm also had to be amputated. Several more surgeries found more dead tissue from the electrocution. Esmond ultimately had his left arm amputated to the shoulder and his right arm amputated to the mid upper arm.

"You can't let it get you down. I could complain, but it serves no purpose," Esmond said.

Only 18 days after Esmond's accident, Baker, 53, was driving a dump truck when he went off the road and lost control. The truck flipped and landed on Baker's arm. It took emergency crews about 30 minutes to lift the truck off of Baker. His arm couldn't be saved.

"I try not to let it change my life," Baker said.

Now two men, once strangers, share a story of triumph in the face of adversity.

"The dedication of these two guys is amazing. There are days it makes me emotional to see what they've done. It's cool," St. Joseph Hospital Occupational Therapist Brooke O'Steen said.

O'Steen's worked with Esmond and Baker for months to build up their muscles to get prosthetic arms. The two men also share having the latest technology in arm prosthetics.

"I didn't think it'd be this functional. I knew I could get a prosthetic, but we got the best," Baker said.

When a muscle is moved, it sends out an electronic signal. The prosthetic arm has sensors that detect those signals and trigger the arm to move.

Esmond got his right arm a few months ago. It has three input sights for his shoulder and back muscles to send signals to make the prosthetic arm move. At that time, it was the best available. Now, it's already considered old technology. Esmond's left arm has eight muscle inputs.

"We're getting more simultaneous control, simultaneous function, more independence," O'Steen said.

Baker also has the arm with eight input sights. They are two of only 15 in the world with that arm.

"Before the arms were all beta tested. They are the first two elbows sold in the U.S.," O'Steen said.

Esmond also had cutting edge technology that should allow him think about moving his arm or hand and the prosthetic will be triggered.

It's called Targeted Muscle Reinnervation. Shawn Swanson from Advanced Arm Dynamics explained that there are nerves in the chest that travel to the wrist or hand to make movement happen when the brain fires the nerves. The surgery Esmond had moved those nerves to his back.

"So when he things 'hand open' there's a muscle in his back what will contract so it's very intuitive. He has six possible sites and we won't know for a few months if it works as he heals and the nerves reinnervate," Swanson said. "It will allow people to do multiple things at the same time, rather than be in elbow mode, then switch to wrist, then switch to hand."

While Esmond and Baker have made a lot of progress, their therapy isn't over. It can take months, sometimes years, to master prosthetics.

"The prosthetic device may fit really well, but if therapy isn't there, it could just sit in a closet," Swanson said.



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