

New limbs offer hope for amputees

By Tina Hinz

WATERLOO, Iowa --- Ryan Rezin offered a hug --- and hope --- to Alvira Morris, whose grandson recently lost portions of all four limbs in Afghanistan.



Ryan Rezin, a 26-year-old arm amputee, put on the Bebionic 3 prosthetic hand at a press conference featuring two new prosthetics the Michelangelo and Bebionic 3 at Advanced Arm Dynamics Wednesday, June 13, 2012, in Waterloo, Iowa.

Rezin, 26, of Cedar Rapids, is an arm amputee. He suffered burns over 80 percent of his body following an explosion eight years ago. "I heard about him earlier," Rezin told her, referring to Cedar Falls sailor Taylor Morris, "but I didn't realize you were going to be here. I feel like we have mutual friends."

On Wednesday at Advanced Arm Dynamics, Rezin was the first person in Iowa to try the latest in prosthetic advancements. The Michelangelo and Bebionic 3 hands feature multi-articulating fingers for more lifelike function and appearance. Advanced Arm Dynamics has been involved in groundbreaking research, development and testing.

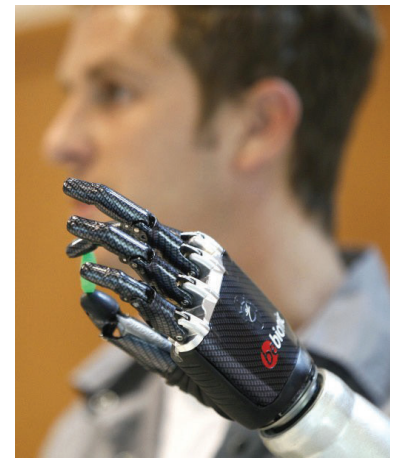
The Michelangelo Hand, initially available only to wounded U.S. service members, was fitted on the first civilian in February. It is the only prosthetic hand that includes an electric opposable thumb, which sweeps open from the side to hold keys, CDs and other thin objects. The wrist can flex and extend.

The new Bebionic 3, released in March, offers 14 unique grasp patterns and faster operating speed, though users must manually place the thumb in opposite positions.



Ryan Rezin, left, a 26-year-old arm amputee, from Cedar Rapids grasps a CD with a new Bebionic 3 prosthetic hand from specialist Julian Wells, right with Advanced Arm Dynamics at a press conference featuring two new prosthetics the Michelangelo and Bebionic 3 Wednesday, June 13, 2012, in Waterloo, Iowa.

Rezin practiced picking up a CD, a Lifesaver candy and a LEGO. He also demonstrated the computer mouse grip, allowing him to easily grab the device and click. The movements are operated by two sensors placed on certain muscle groups.



Ryan Rezin, a 26-year-old arm amputee, from Cedar Rapids holds up a candy he was now able to pick up with a new Bebionic 3 prosthetic hand at a press conference featuring two new prosthetics the Michelangelo and Bebionic 3 at Advanced Arm Dynamics Wednesday, June 13, 2012, in Waterloo, Iowa.

"It really opens up a lot of possibilities and potential for me to engage in life like I used to," said Rezin, who now works at the University of Iowa Hospitals and Clinics' burn unit.

"There's definitely a learning curve associated with technology like this, but I think it will be like riding a bike after a couple of rounds."

Rezin has previously used a body-powered claw as well as a "mannequin hand" with a motor, which opens and closes in a C-shape and is limited to one position. The cost of the new hands ranges from \$80,000 to \$110,000, said Carol Sorrels, national director of marketing and communications for Advanced Arm Dynamics.



Sherri Edge, left, with Advanced Arm Dynamics shows what a custom cosmetic glove made of silicone looks like to Alvira Morris, right, grandmother of sailor Taylor Morris at Advanced Arm Dynamics Wednesday, June 13, 2012, in Waterloo, Iowa. Taylor a 2007 graduate of Cedar Falls High School, was injured in a bomb blast in Afghanistan and lost part of both legs, his left arm at the elbow and his right hand.

Alvira Morris took particular interest in the "trigger grip" of the Bebionic.

"He wants one," she said of Taylor Morris. "He's been an outdoorsman all his life. Those kids grew up hunting, and then he moved into target shooting.

"I think this is just incredible," she added. "It's important for us to have some sort of understanding about the possibilities and what the potential is."

Some of the advancements are the result of government-funded research as more American service members return with missing limbs from Afghanistan and Iraq, Sorrels said. Not as much money has been spent for upper extremity prosthetics because those patients represent only about 10 percent of the 2 million amputees in the United States, she added.

Rezin said he is looking forward to "testing myself and testing the limits of the Bebionic arm."

"It's not the hand you're dealt, it's the way you play your cards," he said.

If that's all, then Taylor Morris is well on his way, according to his grandma. He is one of six American service members left quadruple amputees. "His attitude is so upbeat and so positive," Alvira Morris said. "There's no looking back, and I think that's really commendable."