



Mike Penketh's book, "WITHIN MY GRASP" is available in Print, Kindle and E-mail book online at Amazon.com and BarnesandNoble.com

High-Tech APP for amputees

A new kind of prosthetic hand allows patients to use a stylus and an iPhone to choose any of 24 grip patterns that best suit their needs. The i-limb allows fingers and thumbs to move independently to conform around certain objects.



Double-amputee Jason Koger used to fly hundreds of miles to visit a clinician when he wanted to adjust the grips on his bionic hands. Now he has an app.

The i-limb ultra-revolution, a prosthetic developed by the British firm Touch Bionics, using a stylus and an i-phone, Koger can choose any of 24 grip patterns that best suit his needs.

It's the latest evolution in equipment for Koger, a 34-year-old married father of three, who lost his hands in an all-terrain vehicle accident in 2008.

The technology indicates how rapidly the field of prosthetics is changing, benefitting patients from

injured military members to victims of the Boston Marathon bombing. Increased government research in the wake of the wars in Iraq and Afghanistan is driving some of the advances.

The latest ilimb comes with iPhone or iPad app that allows Koger to reprogram his hand with the touch of a stylus. He demonstrated by gripping an orange, a baseball and a can of soda. The i-limb allows fingers and thumbs to move independently to conform around certain objects.

The Boston Marathon bombings, which wounded more than 260 people with serious leg injuries, have shined a light on the advances in prostheses. Experts point out that technology for upper extremity bionics, which involve fine motor skills, is much different from what's needed for lower extremities, which focus on weight distribution and gait.

There have also been huge advances in computerized knees and feet, said Joe Reda, assistant director of orthotic and prosthetic services at the Kessler Institute for rehabilitation in West Orange, NJ.

"The changes are happening rather rapidly now and I think it's because of our wars overseas," said Reda. "The government is trying to put more money into research and development."

The i-limb ultra revolution is very expensive, although some insurance may cover it. Koger, who received his free in exchange for testing them and providing feedback, met recently with other amputees interested in the new technology. They were all impressed with how the hands worked.