Case study

After an accident at work in 2009, Gary spent 2 years undergoing multiple surgeries in an attempt to restore function to his left hand. Despite these attempts, Gary experienced no significant improvement and therefore elected to have an amputation of the remaining fingers of his hand, at trans-metacarpal level.

Gary was initially fitted with a prosthesis at his local prosthetic clinic, however the prosthetic options available for his partial hand amputation were limited. This resulted in Gary being fitted with a prosthesis normally designed for individuals with a more proximal level of absence. This prosthesis was longer than his arm making it difficult to control and use in daily activities.

Gary decided to explore newer partial hand technology options and presented as an ideal candidate for an i-limb™ digits myoelectric hand prosthesis.

The prosthesis fits snugly around his hand and allows a wide range of features to be adopted enabling the most appropriate grip for a variety of tasks.

As the prosthesis identifies muscle signals in the remaining part of Gary’s hand to control the opening and closing of his prosthetic fingers, it enables him to pick up and grasp objects securely within the prosthetic hand and helps to reduce reliance on his right side.

Gary found his i-limb™ digits prosthesis provides a significant improvement in his daily functional tasks. He has also increased in confidence. Previously he would hide his hand from view but now he is proud to show off his prosthesis and the function it allows.

“After various surgeries I was left with a stump which I hated looking at and often I hid it away. I had also lost a lot of confidence.

Using i-limb™ digits has helped me gain my independence back. I can now cut up my own food instead of asking friends or family. I love the robotic look of my prosthesis and they are a brilliant tool helping with things you take for granted such as fastening my shoe laces, using cutlery or carrying cases. These activities are all now possible.

My prosthesis has had a massive impact on my confidence as I will happily chat or demonstrate the usefulness of my new hand. I consider my prosthesis as part of my body now. I will never get my hand back but my prosthesis is a better replacement than I ever thought was possible and has had such a positive impact on my life.”

Gary McKeown

About Touch Bionics

Touch Bionics is a provider of world-leading prosthetic technologies and supporting services designed to ensure the best possible outcomes for people with upper limb deficiencies. Our advanced products include myoelectric prosthetic hand and prosthetic finger solutions, as well as highly realistic passive silicone prostheses that match the natural appearance of the wearer.

We are committed to helping ensure our patients and customers have the best possible experience with our products by supporting them with training and a full range of support services.

Advanced Upper Limb Prosthetic Technology

Restoring function, independence, confidence & self-esteem
Individual motors in each digit allow the digits to conform to objects being held.

Able to mimic natural grasp patterns of the hand.

Programmable grip patterns and gestures.

**my i-limb™ mobile app for a variety of smartphone devices.**

Unique wristband design allows user to maintain wrist range-of-motion while open forearm reduces heat & sweating.

Programmable features help complete functional tasks and can be customised for precise control.

Control options include EMG muscle signals and mobile App.

**i-limb™ digits** is appropriate for partial hand absence. Suitable candidates present with partial hand loss where the level of loss or deficiency is distal to the wrist and proximal of the metacarpophalangeal joint. Anywhere from one to five digits can be replaced and potential examples are shown in Figure 1.

Although realistic in appearance, passive prostheses like livingskin™ have functional capabilities such as pushing, pulling, stabilising and supporting.

We can replicate everything from exact skin tone to freckles and even hair.

Custom sculpting and painting ensures an individualised fit.

**Variety of prosthetic cover solutions including 20 colour options, Touch Screen Technology and i-limb™ skin match customised cover.**

**Instant access to 36 grip options and gestures on-the-go.**

**Fully automatically rotating thumb.**

**my i-limb™ mobile app for a variety of smartphone devices.**

Confidence and accurate reliable control in every day tasks.

The most advanced and versatile prosthetic hand available from the world’s leading upper limb prosthetics company.

**Product Features**
- Instant access to 36 grip options and gestures on-the-go.
- Fully automatically rotating thumb.
- **my i-limb™ mobile app for a variety of smartphone devices.**
- Confidence and accurate reliable control in every day tasks.

**Benefits**
- Individually motorised digits offers maximum dexterity and precision.
- Moves like a natural hand.
- The i-limb™ ultra revolution enables the user to carry out a wide variety of tasks.
- Multiple control options include muscle signals, mobile Apps & grip chips™.

**Selection Criteria**
The i-limb™ ultra revolution is appropriate for patients with a full hand absence who are looking for optimum functionality. A range of full hand solutions with a variety of wrist options are available. Further information is available on www.touchbionics.com

**Aesthetics**
- Variety of prosthetic cover solutions including 20 colour options, Touch Screen Technology and i-limb™ skin match customised cover.

**Benefits**
- Silicone provides a versatile, durable and virtually stain-proof prosthetic option.
- Complimentary solution to a myoelectric prosthesis that can be alternated with passive prosthesis that can be alternated with passive prosthesis.

**Selection Criteria**
livingskin™ is appropriate for any patients with any level of upper limb absence who would prefer a life-like and functionally supportive prosthesis.