



ottobock.

# bebionic hand

The versatile prosthetic hand

Quality for life

Our names are Angel and Stephen, and we're from the USA and Northern Ireland. As an actor and a part-time DJ, we definitely have one thing in common: We like being in front of an audience. The bebionic hand sets us apart thanks to its unique functionality and extraordinary appearance. We can't imagine our day-to-day lives without it now.



## Stephen

Stephen is an enthusiastic handyman who loves technology, and he has tried various hand prostheses over the years. But only the bebionic hand makes him feel entirely independent, because it supports him perfectly even when he's working with small electronic parts that require fine motor skills, or when he's making the coffee he loves so much.



## Angel

While she initially tried to hide the fact that she was missing her forearm, Angel, an actor, is today an enthusiastic ambassador for the bebionic hand. After all, her standout feature was part of what earned her a role in the Hollywood trilogy “The Hunger Games”.

# Enjoying life – thanks to the bebionic

After Stephen lost his right hand in a bombing many years ago, he went through a period where he had to grapple with a lot of questions and uncertainty. But his main concern was whether he, at the age of just 20 or so, would be able to continue pursuing his passions as a DJ and techie. It quickly became clear to the young Irishman that he would always prefer a functional prosthesis over a purely cosmetic device. Health professionals therefore advised him to have another operation that would support an optimal device and a hand prosthesis with the best possible fit. The physicians wanted to create the ideal conditions for a hand prosthesis that would be perfect for Stephen by shortening his residual limb. Now 51, the music fan has never regretted this decision: after all, it made a series of highly functional prosthetic fittings an option for him.

Stephen's dreams have come true with the bebionic hand. "For a long time I didn't dare to hope that this bionic hand's versatility would actually open up a whole new world for me," the Irishman says. But preparing meals and operating the controls on the mixing board in his favourite club are just some of the activities Stephen can now perform with a high degree of fine motor skills.

The response of those around him to his bionic hand continues to impress the part-time DJ. "People I've never even met before often compliment me on my unusual prosthetic hand," Stephen is happy to say. "Not only does this boost my self-confidence, it also motivates me to support other people in similar situations."





“I’ve enjoyed technical challenges for as long as I can remember, and have incredible respect for the technology in my bebionic hand. I can’t imagine life without it now.”




### Manual dexterity

The ease of changing between prosthetic hands has many advantages for Stephen. He can switch to his Greifer in next to no time when he needs to quickly get his bicycle ready to ride again.





A photograph of a building's exterior corner. On the left, there is a brick pillar and a white wall. To the left of the pillar, there is a dense bush with small white flowers. The ground is paved with light-colored bricks. A yellow text box is overlaid on the right side of the image, containing a quote.

“Back then, my main concern was having the amputation carried out in a way that would let me wear a functional prosthesis. That was the only way I could imagine finding my way to my new life.”

# Hollywood actor with that special something

Anyone who knows the charismatic 28-year-old actor can scarcely believe that she hid her arm deformity for years out of embarrassment (she was born without her left forearm), forgoing the functionality of her hand prosthesis in favour of a cosmetic fitting.

The fact that Angel no longer has to pretend at film castings – and sometimes even gets roles thanks to her standout feature – is in part thanks to her “cool” bionic hand. The smallest version of the bebionic hand fits in perfectly with her body image and gives her a new sense of self-confidence. The young American is particularly happy that an attractive appearance no longer means having to forego functionality now.


A smaller role in the Hollywood trilogy “The Hunger Games” in particular has reconfirmed to her that her decision was the right one. Just like the movie’s main character, Angel has discovered the sport of archery. And she can even match

her acting idol in terms of accuracy thanks to her bebionic hand. Yet the prosthetic hand isn’t just perfect for this high-precision sport, but, above all, for “totally mundane girly things” like doing her hair with a blow dryer and curling iron as well.

Today, Angel can no longer imagine life without the functional diversity of her bebionic hand. The technology integrated into the bebionic hand small comprises a unique system that precisely controls the movements of each finger. This makes it possible to effortlessly imitate the motions of a natural hand. Angel has discovered a fresh new outlook on life and gained self-confidence. She has realised that many of her childhood dreams can now come true, since there are virtually no limits on her desire to try new things anymore.







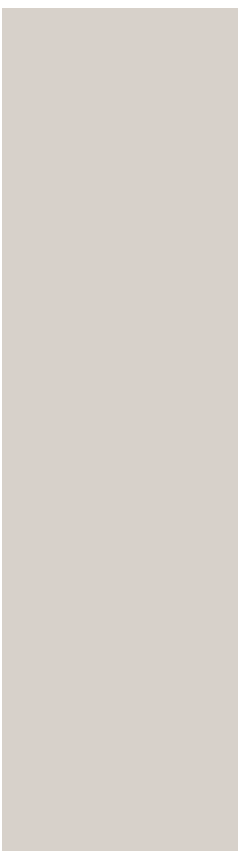
“I was thrilled by how easy it was to move the hand, even the first time I had to control it with my muscle signals.”

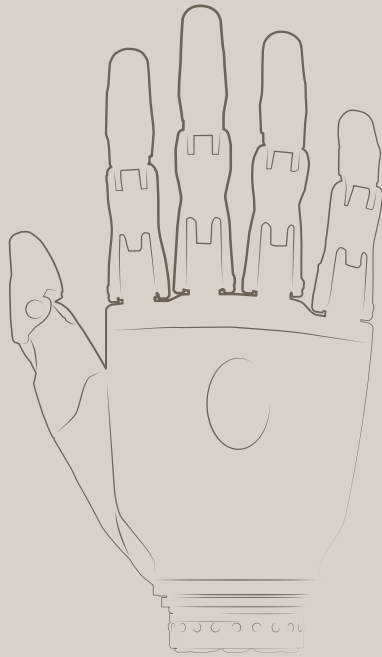


### When dreams come true

Things that seem mundane to people with two sound hands represent a huge step towards more independence for Angel. The day she was first able to hold a curling iron and style her own hair, for example, was a very special one for her.







# Cutting-edge technology combined with peerless design

As a multi-articulated prosthetic hand, the bebionic hand opens up new dimensions for people who are missing an upper limb. Cutting-edge technology and an innovative design form the basis for a hand prosthesis that offers a high degree of independence and outstanding quality of life for users around the world. The bebionic hand is available in different sizes and with various joint options. It features fingers with individual motors, two selectable thumb positions and 14 different grip patterns.



▶ small, black



▶ small, white



▶ medium, black

▶ Opposition



▶ Lateral position



# 14 grip patterns for optimised handling

The numerous functions of the bebionic hand mean you can move in a manner that's true to life. The bebionic hand offers 14 different grip patterns, so you can be more flexible in your day-to-day life. You can choose the grip patterns according to two thumb positions: opposition and lateral position.

## Grip patterns with the thumb in opposition

Eight grip patterns with the thumb in opposition allow you to hold and manipulate a wide range of objects more precisely and securely.





## Power grip

This grip pattern enables you to hold round or cylindrical objects more easily and, above all, more securely. This includes not just balls or pieces of fruit, but also bottles or the handles of household utensils. The power grip also lets you shake hands.

## Active index grip

The active index grip is the ideal hand position for using a keyboard. Objects are grasped and held with the thumb, middle, ring and little fingers, and the index finger subsequently bends. You can then control and position the index finger independently.



## Pinch grip

The pinch grip is particularly suitable for manipulating objects precisely. For this purpose, ask your O&P professional to manually reposition the thumb so that it only touches the index finger.



## Hook grip

The hook grip is ideal for carrying a shopping bag or a briefcase. Two options are available for this grip: Either with the thumb in opposition and a partially closed power grip, or closing the fingers from the relaxed hand position.



## Precision closed grip

This grip is similar to the precision open grip, but is particularly suitable for situations where extended fingers would get in the way – for instance when working at a desk. The middle, ring and little fingers are bent first and close into the palm; the thumb then moves to the midpoint of its movement range and pauses there. After that, you have full control of the active index grip.



If you want to try out the precision closed grip, ask your O&P professional to manually reposition the thumb so that it only touches the index finger.





## Finger adduction

The fingers of the bebionic hand move together naturally as they close. This allows you to more securely grip thin objects, such as cutlery or magazines, between the fingers for a uniquely confident grasp. Finger adduction performs especially well with the hand closed. It can also be used together with the key grip and pinch grip.



## Tripod grip

This grip pattern allows you to pick up, hold and manipulate a variety of everyday items such as car keys, lids, pens and other small objects. As soon as the thumb is in opposition, you can close the hand in the tripod grip so the thumb, index and middle fingers meet. The ring and little fingers close.

## Precision open grip

With precision open grip, you can pick up and manipulate small objects with the thumb in opposition. The index finger meets the static thumb in this case. When you apply a close signal, the thumb moves to the midpoint of its range and pauses there. The index finger is then active and under your control while the middle, ring and little fingers remain extended.



If you want to try out the precision open grip, ask your O&P professional to manually reposition the thumb so that it only touches the index finger.



## Grip patterns with the thumb in lateral position

In the lateral position, the thumb is parallel to the fingers of the hand. Six different grip patterns allow you to type on a keyboard, use a mouse or carry and push objects.



## Open palm grip

The open palm grip is suitable for carrying a tray or a plate. You can fully open the hand to provide a flat palm when the thumb is in the lateral position.



## Finger point

Finger point allows you to operate keyboards and touch screens, and to press a bell or button. The hand can be moved to the finger point position when the thumb is in the lateral position. The middle, ring and little fingers close against the palm and the thumb moves against the middle finger.







## Mouse grip

The mouse grip lets you operate a computer mouse. The thumb and little finger close to hold the sides of the mouse, with the middle and ring fingers providing additional stability. The index finger closes on to the mouse button and then backs off to provide the button press. You can achieve a mouse click with a close signal to the hand and release the mouse with an open signal.



## Column grip

You can use this grip pattern to push objects or operate larger buttons and switches. We also recommend this grip pattern for dressing since the thumb will not get caught in clothing as easily. With the column grip, the thumb is moved from the lateral position towards the palm. The fingers then close over the thumb, making a sort of fist.



## Key grip

This grip pattern is ideal for reading a magazine, using a spoon and for holding a thin, flat object such as a plate, a credit card or a key. The fingers close part way when the thumb is in the lateral position. The thumb then closes onto the side of the index finger. You can then raise and lower the thumb position without moving the other four fingers. This allows you to easily release, hold or reposition the object being gripped.



## Relaxed hand position

In the relaxed hand position, the thumb is positioned slightly towards the palm in the lateral position. The other fingers are slightly bent. By applying a further signal, the hand is moved into the hook grip for carrying objects.



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# The bebionic hand at a glance

## Technical data

Tripod grip force  
Key grip force

## bebionic hand small, medium

36 N  
26 N

## Load limits

Force on single finger (static)  
Transverse force on single finger (static)  
Force on chassis (static, supporting the hand)  
Force with closed hand (static, carrying a bag)  
Forces on thumb (static)

## bebionic hand small, medium

32 N  
44 N  
500 N  
152 N  
40 N

## bebionic Skin Silicone Prosthetic Gloves

The bebionic prosthetic gloves made of several layers of state-of-the-art silicone and integrated reinforcement fabric are soft and easy to clean. The special micro-pigmentation and additional details reinforce the natural impression.

