

Empowering Veterans with impaired hand function



# Carbonhand – The smart and intuitive grip-strengthening glove

Carbonhand is an assistive device with pressure sensors that detect and amplify the user's grip. The more force the user applies, the more Carbonhand enhances it. By compensating for the loss of grip strength and hand function, the user can perform daily activities that they find difficult to perform or cannot do without the glove.

## For people with impaired hand function

Carbonhand is a revolutionary device that enhances grip strength and fine motor skills, providing increased independence for people with impaired hand function, significantly improving quality of life. It can make a lifechanging difference for people with conditions such as:

- Central nervous system disorders such as Spinal Cord Injury, ALS, MS, and Stroke
- Orthopedic injuries such as fractures, nerve damage, and brachial plexus injury
- Rheumatic diseases or osteoarthritis.





## **Enhances grip and endurance**

Artificial tendons and electric motors dynamically add power to the glove ensuring a firm grip and endurance. It supports daily activities, work, or rehabilitation for people with impaired hand function.

## Adapts to your needs

A control pad on the wrist lets users switch between three customizable profiles or activate the glove for grip assistance. Profiles can be tailored for different tasks, such as needing more support for gardening and less for household activities. The profiles are configured via an app.

The system includes a glove and a small power unit worn on the back or waist, allowing for easy customization.

#### Main features

- A three-finger glove that enhances the grip strength during usage
- Can be worn on Index and middle fingers or middle and ring fingers
- Easy to Calibrate for a perfect fit
- Control Pad with three programmable profiles and an activation button, configured via smart app
- Multiple sensors on each finger and in the palm
- Various glove sizes and carrying options to fit individual needs





### Clinical Evidence

Several clinical studies have been performed with Carbonhand, including more than 360 study participants with reduced grip strength and/or impaired hand function due to various reasons and diagnoses.

#### The results from the studies show:

- Using Carbonhand made handling everyday objects easier.
- The strongest benefit was feeling a more steady and powerful grip.
- Participants noticed their grip strength improved with Carbonhand.
- Carbonhand was rated as easy to use.
- It is also safe to use.



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#### **Order Information**

Carbonand is ordered via FSS from:

Affirmative Solutions

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