

## Grip for Sport and Everyday Tasks

### Fist III

User guide



## 1 Introduction

### Description

The Fist provides lightweight, adjustable, comfortable, active grip for people with limited hand function. The Fist makes it possible to grasp a shaft, racket or other handle.

### Uses

- Suitable for racket sports and daily living e.g. gardening
- Suitable for use with gym equipment
- Water-based activities (Caution: always seek and follow the advice and guidance of a technical expert before use in a water environment).

### Features

- Protection in sensitive areas
- Low-tech product for easy field maintenance
- Adjustable to individual hand shape and requirements
- Retained on wrist if released
- Adjustable thumb loop to ensure comfortable fit
- Colour indication for Left and Right-handed use.

## 2 Safety

The Fist III is designed and supplied by Equal Adventure Developments. Every effort has been made to ensure that the product supplied is safe. The Fist III provides a semi-captive attachment mechanism that could cause entrapment in some situations. Prior to use, it is essential that consideration is given to how the Fist III could be released, and by whom, in each situation.

Equal Adventure accepts no responsibility for injury or death occurring as a result of participation in such activities.

The Fist III is part of the Hand Function programme from EAD. EAD's Hand Function programme develops equipment and resources for athletes with limited hand function or upper limb amputations. We create products that complement conventional hand-held sports equipment such as paddles and rackets. Products include the Fist hand grip and the Slip Single Arm Paddling Device.



### When you should not use the Fist III

- If there is any loss of sensation, movement or circulation in the hand or arm during use
- If the lower arm or hand has sustained damage or injury which would be aggravated by use of the Fist III
- If participation would excessively fatigue a limb and reduce its functional use in other daily tasks and ultimately reduce independence
- If the device is excessively worn or has become damaged
- The Fist III should not be used in conjunction with any powered machinery.

### Code of Conduct

- Components should be checked prior to use for signs of wear or damage. If found Equal Adventure should be contacted
- Consult the Equal Adventure before making any alterations to equipment
- Follow fitting instructions and recommendations at all times
- If the product is to be used for extended periods of activity (relative to each user) then a regular assessment of any deterioration of skin condition in relevant areas should be undertaken.

The following points are offered if the Fist III is to be used in adventurous outdoor activities. This list is a guideline and is not exhaustive:

- The Fist III must always be used with an appropriately qualified instructor in attendance
- Do not use the Fist III if you are in any doubt as to your own ability to release the Fist III
- A risk assessment should be conducted by an appropriate technical expert according to the specific activity undertaken

Safety information and instruction related to adventurous activities should be sought from appropriate recognised bodies.

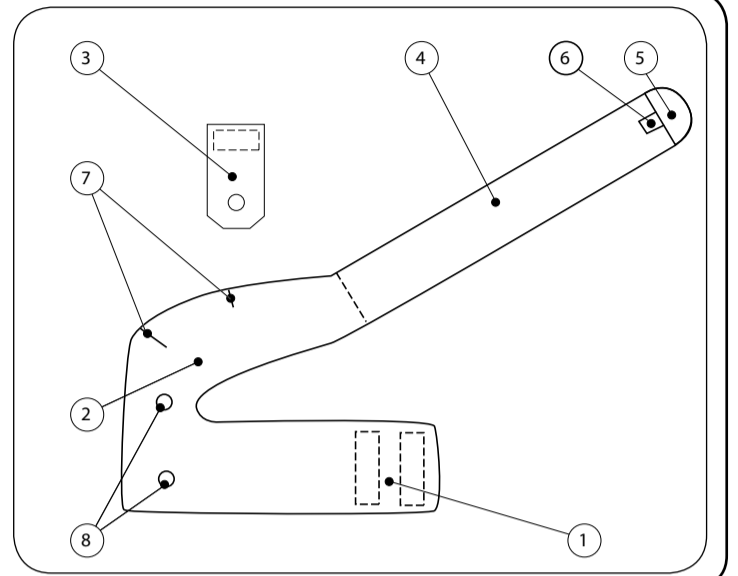
### 3 Description and use

The main body of the Fist III is constructed from Stretch Neoprene, one side of which is textured to accept Velcro. This textured 'furry' side is worn on the outside during use. There are a number of key parts to the Fist III (see figure 1). If required the Thumb loop hole can be extended with scissors to provide a more comfortable fit.

With practice the Fist III can be put on, adjusted and removed independently. However important independence is, it is highly recommended that the Fist III be used in the presence of a third party who is able to help remove the Fist III in the event of an emergency. To reduce fatigue and strains consider the types of movements made. For example, consider angling the body and pull the object across the chest rather than in front and to the side which can be less effective and more tiring.

Figure 1: Fist III parts and features (right-handed Fist III shown)

1. Wrist wrap - Wraps around the wrist, remains attached if the Grip strap is released
2. Hand wrap - Shaped around the back of the hand, held in place by the Grip strap
3. Thumb tab - Can be positioned to help with fitting and improve grip
4. Grip strap - Elastic, stretch fabric that wraps around the hand and shaft and is secured using the release tab
5. Release tab - A weighted tab that fastens and releases the end of the Grip strap
6. Coloured Flash - Colour indicates that the Fist is for the left or right hand; Red for left and Green for right
7. Locating darts - Sewn ridges that crimp the Hand wrap and shape it to the hand
8. Locating holes - Two holes punched through the Fist III that when fitted properly run along the back of the wrist and hand



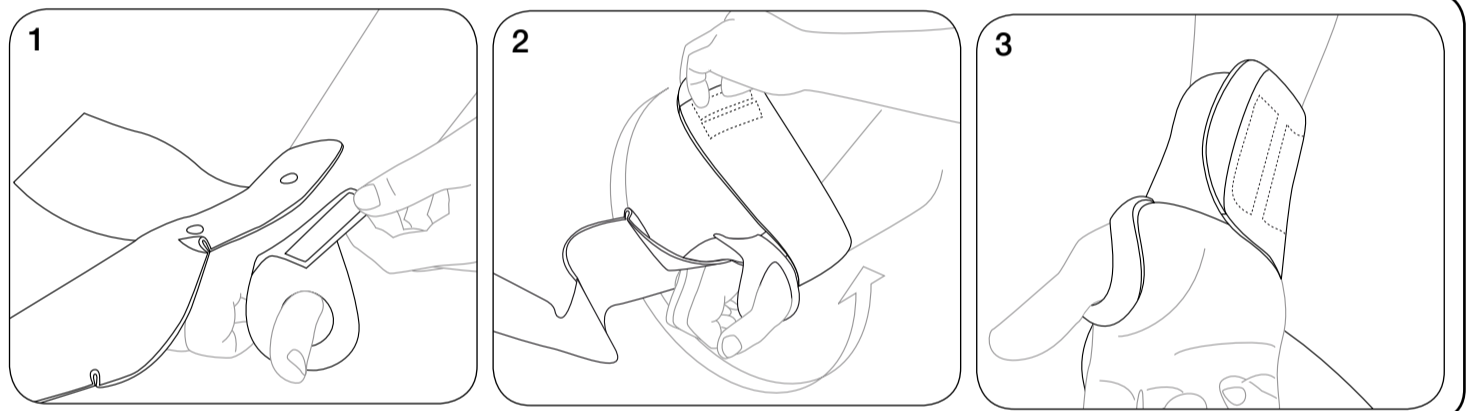
### 4 Fitting the Fist III

#### Attaching to the Wrist (see figure 2)

Select left or right-hand Fist as required. Identify the locating holes and lay the Fist III along the back of the hand, with these holes running up the back of the hand. Move the Fist III until the first locating dart sits on the first knuckle. Take the thumb tab and push the thumb through the hole. Pull the tab to the base of the thumb and fix to the back of the hand. Wrap the Wrist wrap around the wrist and secure in place.

Figure 2: Attaching the Wrist wrap

1. Position the Fist III
2. Wrap around wrist
3. Secure using Velcro strips

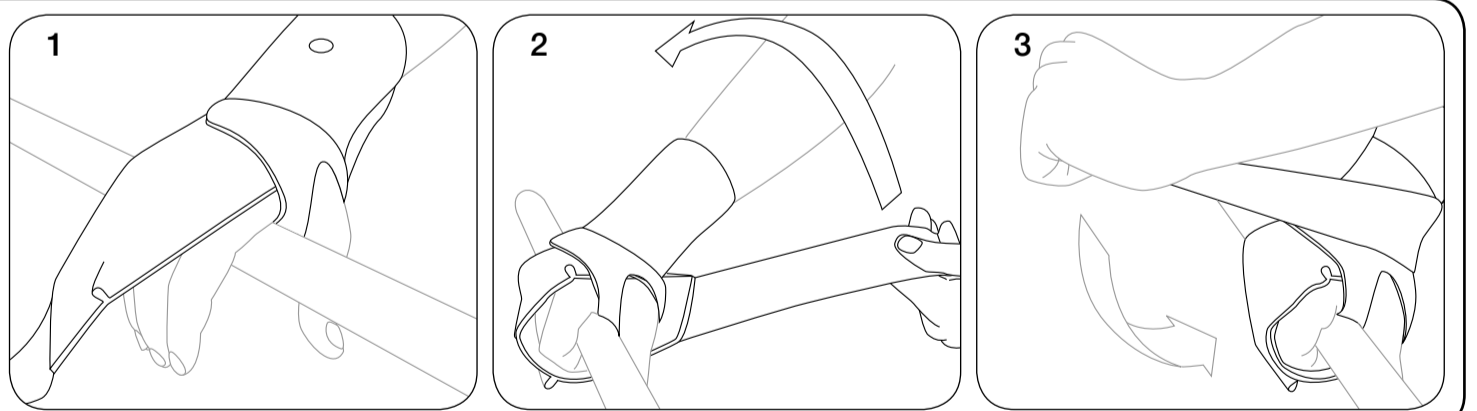


#### Gripping the Object (see figure 3)

The Grip strap is constructed from a strong stretch fabric and ends with the release tab. The Grip strap provides the tension needed to secure the object in the hand. The Release tab is used both during fitting and release. Open up the hand and grasp the object. Wrap the Grip strap over the back of the hand and around the object. Bring the release tab over the top of the thumb side of the hand and wrap the Grip strap around the wrist. Secure the Grip strap using the Velcro tab by attaching it to the back of the Hand wrap.

Figure 3: Gripping an object

1. Position the Fist III and lay over the shaft
2. Take the Grip Strap over and wrap around wrist
3. Secure using Velcro tabs on back of hand



#### Adjusting and Monitoring

Constant monitoring of the lower arm, hand and fingers is essential to ensure that there is no loss in movement, sensation or circulation. Aching joints, paleness of fingers, tingling or pins and needles, or swelling above or below the Fist III indicate that there is an adverse effect. If any of these signs present then the Fist III needs to be removed or adjusted.

#### Removal

Removal of the Fist III requires the Release tab to be pulled. The Fist III should not be used if it can't be removed independently. When used, people around you should be familiar with its removal in an emergency situation. Once the Grip strap surrounding the shaft is released the shaft should drop away. However it is essential that risk assessments are done for the environment and the activity. From this risk assessment emergency scenarios should be acted out and issues relating to use be explored in more depth. Scenarios should include a variety of entrapment situations involving an unconscious user requiring third party intervention to remove the Fist III.

**IMPORTANT:** The Fist III must never be used if your own risk assessment indicates that removal can't be either undertaken independently by the user or through close-at-hand third party intervention.