PATIENT INFORMATION ABOUT GRIP RECONSTRUCTION SURGERY
THE SURGERY

Restoration of grip is done by moving functioning extra tendons into tendons without voluntary movements (tendon transfer).

What kind of surgery you can be offered depends on which remaining muscles you have after your injury, and whether remaining muscle tendons can be moved to provide a new function. Some movements are provided with several muscles. One of these muscle can then be moved to restore another function. For example, if you have a strong wrist extension, this movement is performed by two wrist extensors. One of these may then be used to create finger flexors instead. Similarly, a new thumb flexor can be made by an elbow flexor, please see the image below.

The tendon transfer grip reconstruction consists of several sub-surgeries to balance the functions in the hand. The amount of balancing procedures are individually based.

*Finger flexor: One wrist extensor (ECRL) is moved to finger flexor (FDP)*

*Thumb flexor: One elbow flexor (BR) is moved to be a thumb flexor (FPL)*

_The aim of the surgery and subsequent rehabilitation is to restore a viable grip to the hand that enables daily life activities._
Below you will find essential information for your preparations:

**BEFORE THE SURGERY**

In order for the ward to be able to prepare in advance for your visit, a nurse will contact you about a week before you arrive to Mölndal’s hospital, ward 233 C.A.R.E. You will be asked to provide us with the following information:

- Your need of assistance
- Specific procedures you use for bladder and bowel care
- Any need for special mattress or other needs
- If you are accompanied by an assistant/relative

**Hygiene preparation**
Remember to shower according to the instructions you received in order to minimize the risk of infections. You will also find these instructions on the webpage: [www.sahlgrenska.se/omraden/omrade-3/avancerad-rekonstruktion-av-extremiteter/enheter/mottagning-avancerad-rekonstruktion-av-extremiteter/](http://www.sahlgrenska.se/omraden/omrade-3/avancerad-rekonstruktion-av-extremiteter/enheter/mottagning-avancerad-rekonstruktion-av-extremiteter/).

**Planning at home - changes in your independence**
Remember that the restrictions after surgery hinder you to perform certain aspects of personal care in the way you are used to and may result in an increased need for assistance. If so, you need to increase the amount of assistance in good time before the surgery. You are allowed to maneuver a manual wheelchair after the surgery if you have one, but you can have difficulty driving long distances because of the splint on the hand. In order to adhere to the restrictions, the following aids may need to be tried out before surgery:

- Other transfer aids; sliding board, lifts and slings
- Mobile commode
- Power wheelchair can be used for longer distance (outdoor mobility)
The day before surgery
You will be admitted to the ward the day before surgery, where you will meet several professionals from C.A.R.E. It is therefore important to arrive before noon, preferably at 09:30 a.m. Should you have difficulties to arrive early, please discuss with our coordinator well in advance. The hand surgeon in charge will admit you and inform you about the surgical procedure. The occupational and physical therapists will make assessments prior to surgery, such as muscle strength, range of motion, sensibility and grip ability. You will be asked to set your own goals with the surgery. Pictures will be taken of your arm in order for us to be able to monitor improvements of arm function over time. Anaesthetic assessment and blood sampling will also be carried out the day before surgery. Please look at the timetable on page 5 for more details.

AFTER THE SURGERY

Activities of daily living – personal care
During the restriction period it is important that you are as active as possible in your everyday life, without violating the restrictions. During your stay at the hospital we will try relevant techniques and aids in order for you to optimize your independence during the post-operative phase.

The flexor muscle of the elbow is often used for reconstruction of hand function. This means that you are not allowed to “hook” with the elbow flexion the first 8 weeks after surgery. Thus, you are not allowed to lift your leg with your forearm or to “hook” the arm against the armrest/back on the wheelchair when leaning forward.

When taking a shower and using the toilet a mobile commode is recommended, since you are not yet allowed to fully load the operated hand. When taking a shower you need to protect the arm in a plastic bag or similar. Remember to bring clothes with wide sleeves to make dressing and undressing easier after surgery.

After 3 weeks you may start to use the operated hand in light activities such as eating, tooth brushing, upper hygiene and dressing. How much you can use the hand differs between patients, but it is important to aim at using the hand as much as possible. You are not allowed to fully load your hand, in for example transfers, until 3 months after surgery.

SPLINTING

The day after surgery a custom-made splint is fabricated. You will use the splint day and night for 3 weeks, except for training sessions. From week 4 and onwards the splint is only used during the night for additional 2 months. Remember to bring clothing with wide sleeves to allow you to pull the plaster cast/splint through.
TRANSFERS

If you plan to use a manual wheelchair after the surgery there are certain techniques that facilitates the manoeuvring. It is generally possible to manoeuvre the wheelchair shorter distances propelling with the splint. The therapists will help you with techniques, tips and possible adaptation of the splint.

Low transfers to and from the wheelchair
When making low transfers in and out of bed, on and off the mobile commode, etc. you are allowed to facilitate the transfer by putting some weight on the elbow, as shown in the illustrations below. There are different ways of making transfers. You are encouraged to practice and try out these techniques before the surgery. We will also practice transfers both prior to and after the surgery.
**TRAINING AFTER SURGERY**

The first day after surgery you will start to train the new (reconstructed) functions with guidance from the physiotherapist. You will train several times each day according to a detailed programme and during resting periods you will wear the splint. After being discharged from the hospital you should continue the training several times a day, according to the program. If you think you will need continued assistance with the training we will help by contacting a therapist nearby your home. If you currently or previously have had contact with a local physiotherapist, please bring his or her contact details.

**REHABILITATION 3 WEEKS AFTER SURGERY**

Three weeks after the surgery it is recommended that you return to C.A.R.E. for an intensive rehabilitation period of approximately five days. The aim is to progress the functional training and initiate training of task-related daily activities.

**CONTINUED FOLLOW-UPS**

For persons living in Sweden, follow-up is usually scheduled 3, 6 and 12 months after surgery. You will then meet with the team for post-operative evaluation, training advices and assessments. At these occasions the assessment will include all the measurement performed prior to surgery. You should therefore be prepared to set aside a day for these follow-up occasions.

We also have follow-ups on a regular basis at Spinalis (Stockholm), Orup (Skåne), Örebro and Sunderbyn (Norrbotten). If you live nearby one of these regions, we try to schedule the follow-up there.

**CONTACT DETAILS**

For cancellations and inquiries, etc. please contact:
E-mail: careinfo@vgregion.se
Coordinator, Vivika Muller Phone: +46 31 - 342 88 06
Occupational therapist, Johanna Wangdell Phone: +46 702 99 21 12
Occupational therapist, Therése Ramström Phone: +46 761 35 74 16
Physiotherapist, Lina Bunketorp Käll Phone: +46 700 85 25 96

Hospital ward 233: +46 31 - 342 85 33 or +46 31 - 342 85 38
Visiting address: Mölndal hospital, building T, level 5, Göteborgsvägen 31, 431 30 Mölndal
## TIMETABLE – OPERATION WEEK

<table>
<thead>
<tr>
<th>MONDAY</th>
<th>TUESDAY</th>
<th>WEDNESDAY</th>
<th>THURSDAY</th>
<th>FRIDAY</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:30 – 16:00 Pre-operative assessments and interviews with Occupational therapist and Physiotherapist. Appointment with hand surgeon.</td>
<td>Surgery (all day)</td>
<td>Before noon Assessment by hand surgeon. 11:00 am – approx.4:30 pm: Post-operative treatment and functional training</td>
<td>Functional training several times during the day. Follow up on transfers and activities</td>
<td>Changes of wrapping, if necessary. Functional training. Discharge after lunch.</td>
</tr>
</tbody>
</table>

## TIMETABLE – REHABILITATION WEEK

<table>
<thead>
<tr>
<th>MONDAY</th>
<th>TUESDAY</th>
<th>WEDNESDAY</th>
<th>THURSDAY</th>
<th>FRIDAY</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:30 – 11:30 am: Removal of splints and stitches. Adjustment, if necessary replacement, of splints. After noon Follow-up and adjustment of functional training Activity training.</td>
<td>ADL training. Checking splints. Training, multiple sessions (both functional training and in activity)</td>
<td>Before noon Assessment by hand surgeon and the team Functional and activity training</td>
<td>ADL-training Functional and activity training</td>
<td>Training Discharge after lunch</td>
</tr>
</tbody>
</table>