This information leaflet explains the ongoing management of your injury.

You have sustained a fracture of your greater tuberosity of your shoulder. The shoulder is a ball and socket joint you have fractured the outside of the ball part. This normally takes between 6-12 weeks to unite (heal). Once the fracture begins to heal it is important to keep the shoulder moving to overcome the stiffness but not to aggravate it. The shoulder joint does not respond well to being injured and longstanding stiffness is often inevitable.

Take pain killers as prescribed. You may find it more comfortable to sleep propped up with pillows. The shoulder joint does not respond well to being injured and longstanding reduced range of movement and stiffness is common. If you are worried that you are unable to follow this rehabilitation plan, or have any questions, then please contact the Fracture Care Team for advice.

Picture of injury

Although the fracture has a very small chance of moving, we routinely make an appointment in the fracture clinic 1-2 weeks after your injury. You will have another x-ray at this appointment. The Specialist will then assess your shoulder and guide the next stage of your rehabilitation. Many patients benefit from a referral to start Physiotherapy from 3 weeks after injury.

If you have not received a Fracture Clinic appointment, please contact the Fracture Care Team on the details provided above.

Please follow the Management/rehabilitation plan shown below:

<table>
<thead>
<tr>
<th>Weeks since injury</th>
<th>Rehabilitation plan</th>
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<tbody>
<tr>
<td>0 - 3</td>
<td>Wear the sling all the time, even in bed at night. But remove three times a day to do the initial exercises shown below.</td>
</tr>
<tr>
<td>3 - 6</td>
<td>Unless advised otherwise in clinic, continue to wear the sling and</td>
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</tbody>
</table>
progress to the Stage 2 exercises. Do not lift your elbow above shoulder height as this may be painful.

6 - 12  Try not to use the sling. Begin normal light activities with the arm and shoulder. Increase movement using the Stage 3 exercises. The fracture should be largely united (healed). You should be able to increase day to day activities. More arduous tasks may cause discomfort. Start to lift your arm overhead if possible.

12  If you are still experiencing significant pain and stiffness then please contact us for further consultation

**Initial Exercises to do 4-5 times a day:**
If you have stiffness in your elbow or hand from wearing the sling, you may wish to perform these exercises first. However, once they become easy you can start with the posture and pendulum exercises.

**Elbow Bend to Straighten**
Bend and straighten your elbow so you feel a mild to moderate stretch. You can use your other arm to assist if necessary. Do not push into pain.

**Forearm Rotations**
Put your elbow at your side. Bend it to 90 degrees. Slowly rotate your palm up and down until you feel a mild to moderate stretch. You can use your other arm to assist if necessary. Do not push into pain.

Repeat 10-15 times provided there is no increase in symptoms.

**Finger and wrist flexion and extension**
Open and close your hand as shown 10-15 times. Then move your wrist up and down 10-15 times.

After a few days, hold a soft ball/ball of socks. Squeeze the ball as hard as possible without pain. Hold for 5 seconds and repeat 10 times.
**Postural awareness**
Bring your shoulders back and squeeze your shoulder blades together as shown in the picture. Do this with or without your sling on.

Hold the position for 20-30 seconds and repeat 5 times provided there is no increase in symptoms.

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**Stage 2 exercises to do 4-5 times a day - To start at 4 weeks after injury**

**Shoulder pendular exercises**
Stand and lean forward supporting your injured arm with your other hand as shown in the picture. Try to relax your injured arm.

1. Assist your arm slowly and gently forwards and backwards.
2. Assist your arm slowly and gently side to side.

Continue for approximately 1-2 minutes in total provided there is no increase in symptoms. Remember to try and relax your arm.
Active assisted Shoulder flexion
Use your other hand to lift your arm up in front of you as shown in the pictures.
Repeat 10 times provided there is no increase in symptoms.

Active assisted External rotation
Keep the elbow of your injured arm tucked into your side and your elbow bent. Hold onto a stick/umbrella/golf club or similar. Use your unaffected arm to push your injured hand outwards. Remember to keep your elbow tucked in. Push until you feel a stretch. If you don't have a stick you could simply hold the injured arm at the wrist and guide it outwards.
Hold for 5 seconds then return to the starting position. Repeat 10 times provided there is no increase in symptoms.

Stage 3 exercises to do 4-5 times a day - To start at 6 weeks after injury
When you have regained full range of movement during the above exercises without pain you can start to do the exercises without the support of your other hand; this is known as active range of movement. Then when you have regained your full range of movement without the support of the other arm you can start to build up your regular activities.
Active Forward flexion:
With your thumb facing up, try to move your arm up, keeping it close beside your body.

Active Abduction
With your elbow bent to about 90 degrees, gently lift your arm out to the side.

Active External rotation
With your elbow by your side, rotate your forearm outwards, keeping your elbow at about 90 degrees in flexion.
Repeat all of these 3 exercises 10 times each, 4-5 times a day. Only go as far as you can naturally, without doing any trick movements to try and get further. This will increase over time and should not be forced.

If you are having problems progressing with the exercises and have a follow-up consultation booked, please do let the clinician know so that they can review the exercises and refer you on to Physiotherapy if necessary. If you are on an independent management programme, then please contact us using the number at the top of the letter so that we can also arrange physiotherapy for you.

Smoking cessation

Medical evidence suggests that smoking prolongs fracture healing time. In extreme cases it can stop healing altogether. It is important that you consider this information with relation to your recent injury. Stopping smoking during the healing phase of your fracture will help ensure optimal recovery from this injury.

For advice on smoking cessation and local support available, please refer to the following website: http://smokefree.nhs.uk or discuss this with your GP.

Sources of information

This information leaflet has been developed by the Fracture Care Team at Brighton and Sussex University Hospitals Fracture Care Team and adapted for use at East Sussex Healthcare NHS Trust. Information updated during the COVID-19 pandemic to ensure that patients with injuries have information, support and care despite social distancing.

Important information

This patient information is for guidance purposes only and is not provided to replace professional clinical advice from a qualified practitioner.

Your comments

We are always interested to hear your views about our leaflets. If you have any comments, please contact the Patient Experience Team – Tel: 0300 131 4500 Ext: 734731 or by email at: esh-tr.patientexperience@nhs.net

Hand hygiene

The trust is committed to maintaining a clean, safe environment. Hand hygiene is very important in controlling infection. Alcohol gel is widely available at the patient bedside for staff use and at the entrance of each clinical area for visitors to clean their hands before and after entering.

Other formats

If you require any of the Trust leaflets in alternative formats, such as large print or alternative languages, please contact the Equality and Human Rights Department.

Tel: 0300 131 4500 Email: esh-tr.AccessibleInformation@nhs.net
After reading this information are there any questions you would like to ask? Please list below and ask your nurse, practitioner or doctor.

____________________________________________________________________________
____________________________________________________________________________
____________________________________________________________________________

Reference

Thank you to the Brighton and Sussex University Hospitals NHS Trust and to Kate Weatherly, Specialist Orthopaedic Physiotherapist for the first version.

This leaflet can also be found at: www.esht.nhs.uk/leaflet/greater-tuberosity-fracture/

The following clinicians have been consulted and agreed this patient information:

- Mr Guy Selmon – Consultant Orthopaedic Surgeon
- Mr Andrew Skyrme – Consultant Orthopaedic Surgeon
- Mr Jamie Buchanan – Consultant Orthopaedic Surgeon
- Mr Albert Bonnici – Consultant Orthopaedic Surgeon
- Mr Hemant Thakral – Consultant Orthopaedic Surgeon
- Helen Harper-Smith – Professional Lead Physiotherapist
- Hilary Kircher – Clinical / Operational Lead Outpatient Physiotherapist

The Clinical Specialty/Unit that have agreed this patient information leaflet:
Department of Trauma and Orthopaedics

Next review date: April 2023
Responsible clinician/author: Helen Harper-Smith – Professional Lead Physiotherapist
Mrs Scarlett McNally – Consultant Orthopaedic Surgeon

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