

# ULNAR OSTEOTOMY

Your wrist problem is due to damage to the Triangular Fibrocartilagenous Cartilage Complex (TFC) or triangular cartilage for short. The TFC sits on the end of the ulna bone and has two roles normally. It helps to hold the radius and ulna bones together. It also transmits about one third of force passing across the wrist from the hand to forearm.

When the TFC is torn or damaged, it is usual to get pain on the ulnar side of the wrist. This occurs particularly during the twisting movements that are called pronation and supination. Patients also experience clicking or popping sensations during movement. It is usually impossible to repair a damaged TFC except in the first few weeks after an injury. The treatment available

**Debridement** The tear is tidied using the arthroscope. You probably have already have had this done.

**Unloading** The ulnar bone is shortened to allow more force to be transmitted across the radius (which is not damaged). This is termed an ulnar shortening osteotomy.

The operation involves a cut on the wrist to allow access to the bone. Two to three millimetres of the ulna are removed. The bone is then held together by a plate. The operation is performed under general anaesthetic but local anaesthetic is often injected at the end of the operation. This area and possibly some of the fingers will remain numb for up to ten hours after surgery. You will stay in hospital for one night after your operation.

Hand elevation is important to prevent swelling and stiffness of the fingers. Please remember not to walk with your hand dangling, or to sit with your hand held in your lap.

Your hand will be placed in a bulky dressing, which includes a plaster to protect the operation. Movement of the hand should be continued and you should maintain or recover forearm rotation as shown in the diagram. This dressing will be removed at 7-14 days after surgery when your plaster will be changed to a lighter splint. Once the dressing has been removed, it is permitted to get the hand wet in a bath or shower. There obviously will be some swelling and bruising. Look out for any redness or tenderness in the area around the wound that might indicate an infection. Do not apply antiseptic.

At this stage, you can carefully remove your splint in the day. It is permitted to perform very light activities and your exercises. The splint should be worn at night or in situations where the operation site may be knocked (shopping, in the street, children running about). Heavy unprotected twisting movements should be avoided (steering wheel, screw-driver, bottle opener) as this puts great stress across the plate.

An X-ray will be performed after six weeks to check if the bones are joining (uniting). The surgeon will also gently stress the osteotomy to assess this. Lessening tenderness indicates good progress. At this time, you will need to wear the splint less and you will be able to do more. You will be advised about this but common sense will guide you (i.e. if it hurts, stop doing it!). The bones unite quite slowly. It will be 12 - 16 weeks before you can consider a return to heavy activities.

**You must remember that the operation does not cure the TFC problem. It is only hoped to reduce the pain but it will not abolish your symptoms.** There may be other problems in the wrist joint which also cause pain. These will have been discussed before surgery. Possible complications include: -

**Wound** Possible problems include swelling, bruising, bleeding, blood collection under the wound (haematoma), infection and splitting of the wound (dehiscence).

**Scar** You will have a scar on the side of the wrist, which will be firm to touch and tender for some months. This can be helped by firm massage with the moisturizing cream.

**Nerve damage** A small nerve running in the region can occasionally be damaged during the surgery and either cause numbness on the back of the hand or form a painful spot in the scar (neuroma). The latter complication may require a further operation to correct it.

**Delayed or non-union** Union of the bone can sometimes be slower than expected. It cannot be predicted but over-use of the arm can contribute. If the bone fails to unite (non-union), the surgery has to be repeated.

**Stiffness** You may lose some of the mobility in the forearm/wrist as a result of the operation.

**Regional pain syndrome** About 5% (1 in 20) of people are sensitive to hand surgery and their hand may become swollen, painful and stiff after the operation. This problem cannot be predicted, is variable in severity and is principally treated with physiotherapy.

