

# WRIST FUSION

Wrist fusion (arthrodesis) is performed to abolish the pain of arthritis, to correct deformity or the effects of muscle dysfunction.

The operation is intended to abolish extension, flexion and deviation of the wrist but will not prevent rotation of the forearm

It involves the removal of the back of the radius, carpal and middle finger metacarpal bones and some of the gliding joint surfaces between these bones. Bone-graft may be taken from the hip-bone (ileum) and this is packed into the region to encourage the bone surfaces to join together. The bones are then held in place by a titanium plate and screws.

The operation is performed under general anaesthetic. Your hand will be placed in a bulky dressing, which includes a plaster to protect the operation. Movement of the hand and thumb-tip should be continued and you should perform normal light activities after the operation. Hand elevation is important to prevent swelling and stiffness of the fingers. You will stay in hospital for at least one night after your operation. Taking bone from the hip region will not harm the bone or nearby joints but the area can be quite sore for a few days.

Two weeks after the operation, your stitches will be dissolving and your plaster will be changed to a lighter splint. 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 but please contact my secretary if you have any worries. The wound and the surrounding skin can become dry and if this occurs, briefly immerse the whole hand in water to which a small quantity of baby-oil has been added.

You will need to keep the wrist protected within the splint until the X-Rays show that the bones are joining together (uniting). Unprotected heavy use will ruin the surgery. However, it is permissible to remove the splint in quiet situations and for skin care/washing.

An X-Ray will be taken at 6 weeks after the operation to assess progress. Thereafter you will be able to step up your activities as guided by common sense, using the splint in circumstances where you anticipate the wrist being knocked or strained. The bones will not have joined solidly until 12 weeks after the operation.

**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 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** Small nerves 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.

**Plate** This may need to be removed at a later time if it is uncomfortable.

**Nerve compression** The swelling in the region can cause pressure on local nerves resulting in pain and pins&needles in the fingers. This may need a releasing operation soon after the fusion 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.

