

STT FUSION

The function of the wrist is reduced by a number of problems including (i) arthritis, (ii) instability due to ligament damage and (iii) abnormal softening of the lunate bone (Kienböck's disease). One of the methods of treating these conditions is to fuse the joint formed between three bones, the scaphoid, trapezium and trapezoid. This scapho-trapezio-trapezoidal (STT) joint is an important link between the two carpal bone rows and is involved in up and down (extension/flexion) and side-to-side (deviation) movements.

STT fusion involves joining the three bones together to prevent movement at the joint. The operation involves the surgeon removing the surfaces of the joint. A small bone-graft is taken from the hip-bone (ileum) and this is packed into the STT joint to encourage the bone surfaces to join together. The three bones are then held in place by wires, which are usually buried under the skin. Sometimes, a small piece of the radius bone is removed to prevent later problems.

The operation is performed under regional or general anaesthetic. 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.

At the end of the operation, 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. Avoid walking with your hand dangling, or sitting with your hand held in your lap.

Two weeks after the operation, your stitches will be removed 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. Moisturisers (e.g. E45, Diprobase creams) can be used on the hand but avoid rubbing them directly into the wound or pin-sites at this stage.

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 occasionally to allow skin care/washing but you must be very careful not to jolt or move the wrist at this stage.

An X-Ray will be taken at 6 weeks after the operation to assess progress. You may be allowed to remove the splint for gentle wrist exercises at this stage if progress seems satisfactory. The wires will need to be removed at about this time, which may require a short local anaesthetic operation.

Recovery from the operation is slow and you must be patient. The bones will not have joined solidly until 12 weeks after the operation at the earliest. During this time you will not be able to use the wrist for anything other than light activities. 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.

Scar You will have a scar on the wrist, which will be somewhat firm to touch and tender for 6-8 weeks. You can ease the tenderness by massaging the area firmly with moisturizing cream

Infection This can occur after any operation and would be treated by antibiotics.

Non-union Failure of the bones to unite is the major worry about this operation and occurs in about 10%. It would almost certainly require for the operation to be repeated.

Function Recovery from this operation can be slow and it can often be 6 months before you can resume heavy activities. You will probably be able to drive a car after 12 weeks as long as you are comfortable and you have regained full finger movements. Timing of your return to work is variable according to your occupation and you should discuss this.

Stiffness You will lose about a quarter of the mobility in the wrist as a direct result of the loss of the movement in the STT joint. About 5% (1 in 20) of people are sensitive to hand surgery and their hand may become swollen, painful and stiff after any operation (algodystrophy). This problem cannot be predicted but will be watched for afterwards and treated with physiotherapy.

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

