

# SAUVE-KAPANDJI

Your wrist problem is due to damage to distal radio-ulnar joint (DRUJ) or to ligaments that stabilise the joint. This may include the Triangular Fibrocartilagenous Cartilage (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.

If there is damage or instability of the DRUJ or 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 may also experience clicking or popping sensations during movement.

It is extremely difficult to stabilise the DRUJ if the ligaments have been damaged. Furthermore, if the joint itself is damaged, simple stabilisation will not solve the problem. Similarly, it is usually impossible to repair a damaged TFC except in the first few weeks after an injury.

The combination of problems is dealt with by the Sauve-Kapandji procedure. The operation involves a cut on the wrist to allow access to the bone. 10-12mm of the ulnar are removed. The bone ends are then held together by a screw. **The operation creates a new joint, further down the ulna. This is not a "normal" joint and probably is never going to be as good as the DRUJ before it was injured.** The operation has two effects; (i) **Stabilisation** It prevents abnormal movement at the DRUJ, (ii) **Unloading** The ulnar bone can be shortened to allow more force to be transmitted across the radius (which is not damaged) rather than across a damaged TFC.

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. As this effect wears off, it may be worth taking some pain killers. 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. The day after the operation, your plaster will be changed to a lighter splint.

At this stage, you can remove your splint in the day. It is permitted to perform 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 joints. Lessening tenderness indicates good progress. 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!). It may be 12 - 16 weeks before you can consider a return to heavy activities.

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. Your stitches will be dissolving by about two weeks after your operation. 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 must remember that the operation does not cure the 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. Inevitably, there are potential complications.

**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** 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.

**Clicking** Up to 20% of patients experience some clicking during pro-supination. This is usually just a nuisance but some patients find it painful. This complication is difficult to solve and can require further surgery.

**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.

