

FINGER ARTHROPLASTY (DIPJ)

Arthritis of the distal interphalangeal joint (DIPJ) is very common. It causes deformity, swelling, pain and can interfere with function. Surgery is the only definitive treatment for persistent problems but no operation restores normal function. There are two methods of dealing with the joint: fusion (arthrodesis) and joint replacement (arthroplasty). The factors that are considered when selecting the best procedure for you include; (i) the cause of the arthritis, (ii) the extent of the joint damage, (iii) the condition of the bone, (iv) previous surgery, (v) the demands placed on the hand, (vi) the finger(s) affected, (vii) the condition of other joints in the hand.

Arthroplasty involves removal of the arthritic joint and its replacement by a Silicone implant. It is most suited to a reasonably stable and mobile but painful joint in patients who do not need high power levels for work or play. The aim of the operation is to relieve pain whilst retaining some but not normal movement.

The operation takes about 45minutes. It will generally be performed under local anaesthetic as a day-case (home on the day of surgery).

Your finger will be placed in a dressing which includes a splint to protect the operation until the swelling has settled. Hand elevation is important for comfort and to limit swelling.

The dressing will be removed after 10-14days and the wound checked. You will be provided with a splint by a hand therapist and then begin mobilisation. The exact rehabilitation programme advised will vary somewhat depending on (i) the technique used, (ii) the type of implant, (iii) the strength of bone and soft tissue repairs and (iv) how stable the joint felt at surgery.

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. Once dressings are removed, it is safe to get the hand wet in a bath or shower. 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 at this stage. Your stitches will be dissolving by about two weeks.

You will probably be able to return to light use and driving at about six weeks after surgery. However, the implant will need some protection from knocks and stresses by the splint until the tissues have recovered full strength at about twelve weeks. Timing of your return to work is variable according to your progress and occupation, and you should discuss this.

Arthroplasty is a technically demanding procedure with a fairly high complication rate that can lead to revision, most often in the form of an arthrodesis (fusion) rather than replacement of the implant.

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 over the joint, which will be firm to touch and tender for some months. This can be helped by firm massage with the moisturizing cream.

Tendon Tendons are often deliberately and occasionally accidentally cut during the operation but are repaired.

Numbness The digital nerves can be accidentally bruised. The effects are usually temporary but some numbness can persist.

Stiffness Normal movement will not occur and the average range of movement at the joint is 60°. Occasionally, secondary surgery is needed to improve movement (tenolysis).

Instability The joint can be sloppy and dislocate either needing its relocation or revision.

Failure Absorption of bone around the implant related to loosening becomes more likely with time.

Synovitis Microscopic fragmentation of the implant can lead to recurrent swelling and pain.

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

