



SURGERY

Proximal Interphalangeal Joint (PIPJ) Replacements

What does this involve?

The proximal interphalangeal joint is the middle joint of each finger, between the knuckle and small end joint near the nail. Replacing this joint involves removing the arthritic bone and replacing it with something less painful. Several types of replacement are available.

When is surgery needed?

This operation is most frequently performed in patients with arthritis. Sometimes the joint has been damaged after an injury and a replacement can also be considered then. Persistent pain is the main indication for surgery. Improvements in the range of movement of the finger after replacing this joint are less certain and should not be relied upon. Very stiff joints or joints likely to be heavily loaded (for instance the index finger PIPJ) are probably better treated with a fusion of the PIPJ if it is very painful (see 'Hand Joint Fusions').

Most surgeons would encourage you to try painkillers, activity modification, aids to help with certain tasks (opening jars etc) and steroid injections into the painful joint before recommending surgery. The majority of patients with PIPJ arthritis can manage their symptoms in this way without ever needing an operation.

Which operation is the right one for me?

There are two main types of replacement for the PIPJs – silicone (soft) replacements and solid (hard) replacements (see pictures below). In general soft replacements are used for patients with rheumatoid arthritis and hard replacements for those with osteoarthritis but this is not a rigid rule. Your surgeon will discuss this with you.

Xray of patient with Osteoarthritis in several small joints of the hand



Arthritic PIPJs of index and middle fingers

A Hard PIPJ replacement (PIPR)



A Soft PIPJ replacement (side view)



Type of Operation	Day case
Length of Procedure	0.5 – 2 hours (depending on number of joints)
Anaesthesia	Regional Anaesthetic (whole arm numb) or General Anaesthetic (asleep)



What are the main risks of this operation?

Swelling, Stiffness and Scar pain

This can be reduced by keeping the arm elevated and moving all the free joints as soon as possible. In most people the general swelling reduces dramatically in the first week after the operation.

Local swelling around the surgical site can persist for several months. Local swelling can be helped by massaging the tissues and this may also improve any irritability in the surgical scar.

Occasionally patients are troubled by more swelling and stiffness than average. In this case complex regional pain syndrome (CRPS) is sometimes the cause (see relevant information sheet in 'Conditions we Treat'). Severe CRPS occurs in less than 1% of cases.

Infection

This is unusual in the hand (less than 1% of cases). Local wound infections can often be treated with oral antibiotics. Rare, deep seated infections may require re-admission to hospital, antibiotics into the vein and occasionally more surgery.

Nerve Damage

The nerves most at risk with these operations are the small skin branches supplying sensation around the scar on the back of the finger. The lost patch of skin sensation from these injuries might be irritating but should not affect how your hand works.

Loosening or failure of the replacement

Soft replacements can break over time and hard replacements can work loose in the bone. Either problem may require further surgery.

Dislocation of the components

Hard replacements have a separate part for each bone. These components can dislocate occasionally. Sometimes this can be sorted out with a simple manipulation of the joint (with an anaesthetic) and further splinting. Sometimes this is not enough and further surgery is necessary.

Failure of Tendon Repair

This risk mainly relates to how your surgeon opened up your finger to do the operation. The opening can be through the back, side or front of the finger. Coming through the back of the finger the extensor tendon always has to be repaired. This is the tendon that straightens out your finger. Coming through the side the extensor tendon sometimes has to be repaired. If the tendon has been repaired this can sometimes fail to heal and occasionally this might mean more surgery is needed.

Post Operative Course

Day 1

- A dressing and padded bandage with a splint or plaster cast incorporated is applied after the operation
- Keep the dressings clean and dry
- Keep all joints not in the splint moving to avoid stiffness, including the elbow and shoulder
- Keep the arm elevated in a sling or on pillows to reduce swelling
- Take painkillers before the anaesthetic wears off and as necessary thereafter

Day 5 - 7

- An appointment will be made for a wound check, dressing change and a removable splint to be made by the hand therapists
- Further rehabilitation will depend on various factors and your hand therapist will guide you about this

6 Weeks

- An appointment will be made for you to see your surgeon around this time
- A check xray will often be obtained during this visit

Plaster Cast Information

Contact your surgical centre if:

- Your fingers become blue, swollen or numb and tingling with a plaster cast in place
- You see any discharge, wetness or detect any unpleasant smells from around your cast
- The cast becomes cracked, soft, loose or uncomfortable.

Outside normal working hours you may need to attend your local Accident and Emergency Department for help with these issues.

Driving

You may drive when you feel confident to control the car, even in an emergency.

For this surgery it is usually six weeks before you should consider driving again.

You should discuss it with your insurer if you are considering driving with a splint in place.

Time off Work

This will vary depending on the nature of your job and the exact nature of your surgery.

Sick notes can be provided on the day of your operation, at your clinic visits and by your own GP.