



SURGERY

Metacarpophalangeal Joint (MCPJ) Replacements

What does this involve?

Surgery on these joints involves removing the arthritic joint and replacing it with an artificial joint. Several types of replacement are available. An important component of the operation is the repair of the soft tissues that support each joint and allow it to work normally. This soft tissue repair takes time to heal and so careful rehabilitation after these operations is very important.

When is surgery needed?

This operation is most frequently performed in patients with rheumatoid arthritis. In those patients it is common for all 4 finger MCPJs to be affected and for the soft tissue element of the operation to be very important. Pain in the joints is the best reason to have this operation but many patients also want to improve the look of their hand. Although it might seem likely that straightening out the fingers would improve the function of the hand this has been difficult to prove conclusively.

Patients with osteoarthritis of the MCPJs are sometimes considered for replacement surgery. In this case fewer joints are usually affected and the soft tissues are often in a better condition than is the case with rheumatoid arthritis. Pain is the main reason for surgery in these circumstances.

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 MCPJ

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 MCPJs – silicone (soft) replacements and solid (hard) replacements. 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 Rheumatoid Arthritis in the MCPJs



Worn out, unbalanced MCPJs in all fingers

A Hard MCPJ replacement (pyrocarbon)



A Soft MCPJ 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 hand. 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 open surgery is necessary.

Recurrent soft tissue deformity

Over time the original deformity of the joint can come back as the soft tissues stretch out. This is common in patients with rheumatoid arthritis whose soft tissues are also affected by their disease. Often the recurrent deformity is well tolerated but occasionally further surgery is necessary.

Post Operative Course

Day 1

- A dressing and padded bandage with a plaster cast incorporated is applied after the operation
- Keep the dressings clean and dry
- Keep the arm elevated in a sling or on pillows to reduce swelling

- Start moving the elbow and shoulder joints immediately to prevent stiffness
- Take painkillers before the anaesthetic wears off and as necessary thereafter

10 - 14 Days

- An appointment will be made for a wound check, dressing change, trimming of your sutures and x-rays
- Hand Therapy will be arranged for a removable splint to be made and rehabilitation to start

6 Weeks

- Further clinic check with your surgeon to assess progress.
- Strengthening exercises to start

12 Weeks

- Further clinic check with your surgeon, check x-rays are taken
- Heavier lifting can be introduced if satisfactory progress has been made

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.

If all four MCPJs are replaced it is usually at least two months before you should consider driving again.

Single joint replacements in patients with osteoarthritis will usually be back to driving six weeks after the surgery and occasionally a little earlier if good progress is made.

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.

These notes are intended as a guide and some of the details may vary depending on your individual circumstance and at the discretion of your surgeon.