



KATARZYNA MACKENZIE

PLASTIC SURGEON

Joint Replacement

Joint replacement or arthroplasty is a procedure to replace a damaged joint surface with an implant which still allows some movement in the joint. In the hand, it is usually done for the MCPJ metacarpophalangeal joints (knuckle) or the PIPJ proximal interphalangeal joints (first finger joint), although other joints can be replaced. The joint damage can be due to arthritis, trauma or infection. Joint replacement can help to reduce pain and correct finger deformities.

Length of surgery	1-3 hours
Anaesthesia	Regional or general anaesthetic
Hospital stay	Day case
Risks/complications of surgery	Frequent: Swelling, stiffness, discomfort on movement Infrequent: Infection, bleeding (haematoma), delayed wound healing, painful scar, damage to the nerve, prosthesis failure, adhesions, complex regional pain syndrome
Recovery	6 to 8 weeks resume light activities, such as using a keyboard or writing with a pen 8 to 10 weeks resume medium activities, such as light lifting or shelf stacking 10 to 12 weeks resume heavy activities, such as heavy lifting or building work 10 to 12 weeks resume sporting activities 3-9 months until final result
Driving	8-10 weeks
Hand position	Elevation above the heart level
Follow up	1 week, 6 weeks, 3 months, 6 months
Duration of results	Permanent unless failure

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Referral expectations

You need to bring with you to your appointment:

- Any letters or reports from your GP or hospital
- Any X-Rays, CT or MRI films and reports
- All medicines you are taking including herbal and natural remedies
- Your ACC number, if you have one

What is a joint replacement?

The hand has multiple small joints that work together to produce motion. When the joints are affected by arthritis, activities of daily living can be difficult. The two most common forms of arthritis from disease are osteoarthritis and rheumatoid arthritis.

Joints in the fingers are the articulation between bones with a very specific shape and ligaments to support them as they move. Cartilage covers the ends of bones and provides a smooth gliding surface for the joint.

When arthritis occurs due to disease, the onset of symptoms is gradual, and the cartilage decreases slowly. The joint surfaces and ligaments can wear down causing pain and this operation is undertaken to remove the painful surface.

In the operation the damaged bone surfaces are removed and replaced with an artificial one. There are different implant options and different surgical incisions used to get to the joint. Some implants are not designed to withstand strong forces and high demand power grips are not advised.

Sometimes people find using pain medication and adapting tasks is sufficient to alleviate their symptoms. Hand therapy advice is available to find coping strategies, such as changing the way you grip objects, utilizing assistive devices and managing joint pain. Surgeons can offer injections to help manage pain in the joints and may discuss this at appointment.

What are the benefits of a joint replacement?

Pain relief is the main benefit offered by this type of surgery. Most studies show little change to joint movement and strength after the operation. This relief of pain can therefore improve the functional use of the hand. It can improve the look and alignment of the joint.

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About the operation

The operation is performed as a day case. The anaesthetic may be regional (injected in the armpit to numb the entire arm) or general. In this operation, the painful joint surfaces are removed using an incision on the finger and replaced with an artificial silicone joint. The implant is sized according to the size the joint it is replacing and the size of the bones on either side. Soft tissues are repaired, and the skin is closed using stitches.

There will be a splint or cast to protect the area initially and postoperatively an exercise or rehabilitation program will start.

What is the recovery after a joint replacement?

It is very important to elevate your hand as often as possible, following your operation as it helps to reduce the swelling.

You can have a bath or shower 48 hours after your operation, but keep your wounds dry until they have healed. It is helpful to wear a large plastic bag over your arm for showering or bathing.

A new joint takes around 12 weeks to fully heal. Within this time, you must try to achieve the maximum amount of movement possible, especially in bending. The hand therapist will monitor the treatment and adapt your rehabilitation program.

There will be some limitations on the hand function for up to 12 weeks after your operation. This includes avoiding use of any operated fingers in daily pinch and gripping tasks for at least 6 weeks. As your recovery progresses, you will be given advice regarding when to start including your operated finger into activities.

It is important to try and follow the principles of joint protection in the future in order to look after your new joints.

You can expect some mild pain, swelling, and stiffness after your procedure. It may take from 4 to 9 months for swelling and stiffness in your hand and fingers or thumb to go away completely.

Although the scar may be red and tender for several weeks, it is seldom troublesome in the longer term.

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When can I return to work?

How quickly you can return to work and resume normal daily activities will depend on the nature of your job, as well as the type and location of your injury. In general, most people are able to:

- Resume light activities, such as using a keyboard or writing with a pen, after 6 to 8 weeks
- Drive a car or motorcycle after 8 to 10 weeks
- Resume medium activities, such as light lifting or shelf stacking, after 8 to 10 weeks
- Resume heavy activities, such as heavy lifting or building work, after 10 to 12 weeks
- Resume sporting activities after 10 to 12 weeks

You will need to consider that the disease process of osteoarthritis/rheumatoid arthritis is still continuing, even with your new joints, so it is essential to protect your joint replacements as much as possible.

What are the complications of a joint replacement?

Complications associated with this surgery can include:

- Infection – this can be settled by taking antibiotics
- Swelling
- Painful scar
- Bleeding
- Wound healing problems
- Delayed wound healing
- Stiffness and joint contracture in the operated joint;
- Dislocation
- Numbness due to damage of the nerves that are situated close to the operation site
- Joint infection and loosening
- Fracture of the implant or bone
- Ongoing pain
- Residual reduced function
- CRPS-complex regional pain syndrome