



Cayman Hand Centre

WRIST ARTHROSCOPY

Information Leaflet

What is wrist arthroscopy?

Wrist arthroscopy is a keyhole procedure used to look inside and treat the wrist joint at the same time. It is normally carried out as a day case procedure. The wrist joint is formed by eight carpal (wrist) bones and the radius and ulna (forearm bones). These are surrounded by a capsule and connected together by ligaments (soft tissues).

Why have arthroscopic surgery?

The benefits are both diagnostic (allows the diagnosis of the problem) by seeing and probing the structures and therapeutic (allows the treatment of the problem) in most cases. It can also be used to facilitate assessment and fixation of wrist and carpal bone fractures. Because the procedure involves access with small incisions, recovery is quicker and less problematic than traditional open surgery.

What are the alternatives?

Not every wrist problem warrants an arthroscopy. The diagnosis may sometimes be reached by history, clinical examination, Xrays or an MRI scan. Some problems can be treated without surgery by exercises, activity modification, medication, orthotics and physiotherapy. Traditional open surgical procedures can also be carried out either alone or combined with arthroscopic surgery. Arthroscopy is not appropriate for all wrist conditions. It requires a highly trained experienced hand surgeon.

Preparing for a wrist arthroscopy

You will need to see an anaesthetist and undergo some blood tests to make sure you are fit for an anaesthetic. Your heart rate and blood pressure will be checked and your urine tested. You can discuss with the anaesthetist whether you wish to go to sleep (general anaesthetic) or would prefer to have a brachial plexus or regional injection during which you can stay awake and watch the procedure on a monitor if you wanted to do so. You would not feel any pain during the operation. A sedative may be added if you are feeling anxious.

If you are a smoker, it is best to discontinue smoking prior to your operation as smoking increases your risk of your suffering from a chest and wound infection, which can complicate your recovery.

If you are on the contraceptive pill there may be a slight increased risk of deep vein thrombosis (clot) and pulmonary embolism, you may be required to discontinue the pill and seek an alternative means of contraception. Not all pills carry the risk, so it is best to enquire from your family doctor or Obstetrician / Gynaecologist. The risk is far lower than that with lower limb surgery. It is increased if you have had a previous deep vein thrombosis in the past.

The day before the operation you need to be fasting with no smoking and nothing to eat or drink for at least 6 hours. The anaesthetist will advise you accordingly. This is vital if you are to undergo a general anaesthetic. The anaesthetist will also advise you on whether to continue with your medication or stop it prior to your operation. Remember to ask him / her about this when you meet.

The morning of your operation, before coming to hospital you are required to have a shower but DO NOT shave your arms for at least 1- 2 weeks before your operation as this can cause small nicks and cuts in the skin which can predispose to infection.

At the hospital, 2-3 hours before you are due to undergo your surgery, you will be admitted to the ward. The nurse will take your heart rate and blood pressure once again. You will have an opportunity to discuss with your surgeon any concerns or questions you may have. It is best to write these down in advance. You will be requested to sign an informed consent prior to this and this will be confirmed once again when you meet your operating surgeon. The limb to be operated on will be marked at that stage with an endilible marker to identify it during the operative procedure. Until you are actually asleep and are unable to voice your views you may change your mind and cancel the procedure.

At the hospital, you will be provided with a theatre gown and may be provided with compression stockings to wear. The latter is to reduce the risk of a deep vein thrombosis (prevent blood clots forming in your leg veins). An alternative may be blood thinning drugs which reduce the risk of clot formation. If you are allergic to any medication, or are known to suffer from specific allergies, you need to advise the anaesthetist, operating surgeon and nursing staff.

How is wrist arthroscopy carried out?

Once the anaesthetic has taken effect, your wrists will be examined and results documented. A tourniquet may be applied above the elbow to provide a bloodless field. The marked limb will be prepped with antiseptic and then draped. The arm will be distracted and the wrist joint injected with saline (fluid) to expand the joint and facilitate movement of the scope and the instruments.

Three or more small cuts will be made in the skin of the wrist to allow for access of the scope and instruments. The wrist will be filled with saline (sterile fluid) and a thorough visual examination of the various wrist compartments will be carried out. The images will be seen on a monitor. If you choose to remain awake during the operation, this will be positioned so you may watch at the same time. This will be followed by probing of the carpal bones, articular cartilages, triangular fibrocartilage complex (TFCC) and ligaments (structures inside your wrist) to confirm their integrity.

Any pathology (abnormal findings) that can be treated arthroscopically will be done at this time unless you have given specific instructions for that not to occur on your consent form. This may include trimming or repairing of your TFCC, debriding (cleaning up) of the articular damage, removal of ganglia (cystic swellings) and loose bodies. It can also include taking of tissue samples (synovial biopsy) to be sent to the lab for histological examination under the microscope. If there are defects that require to be drilled, this will also be carried out. If the removed pieces are too big, a larger incision will be made. The wrist arthroscope can be used to assess and aid in reduction of wrist and scaphoid fractures.

At the end of the procedure, your wrist will be washed out with fluid and this will be drained from your wrist. A local anaesthetic will be injected into your wrist to make you comfortable. The skin cuts will be closed with stitches or adhesive strips. The wrist will be prepped again with an antiseptic. Dressings and a bandage will be applied around your wrist. A wrist splint may be applied. If a tourniquet was applied it will be removed and the anaesthetist will recover you from the anaesthetic.

What to expect after the arthroscopy

You will need to rest until the effects of the anaesthetic wear off. Your arm may remain numb for a few hours particularly if you underwent a regional anaesthetic. You will be provided with a sling. Take special care during this period not to knock or bump your face with your arm as the sensation will be altered and you will have limited control over it until the anaesthetic wears off.

You will be offered pain relief to make you comfortable and ease the pain after the effects of the anaesthetic wear off.

You will be allowed to stand and walk. Once you are steady and safe on your feet you will be allowed home. You will however need to arrange for a responsible adult to drive you home and stay with you for the first 24 hours.

The wounds are to be kept clean and dry. You will have an appointment made to see your doctor in the practice one week after your operation, at which stage your dressings will be changed and wounds inspected. Your sutures may be removed or they may fall off on their own if they are dissolvable. A sick note will be provided for 2 – 3 weeks. During this period, you are required to carry out your exercises on a regular basis.

Recovering from wrist arthroscopy

You can take over the counter painkillers as paracetamol or ibuprofen if you are in pain. Always read the information that comes with the medicine and ask your pharmacist for advice if you have any questions.

General anaesthesia temporarily affects your co-ordination and reasoning skills, so you must not drive, drink alcohol, operate machinery or sign legal documents for 24 hours afterwards. If you are in any doubt about driving, contact your motor insurance provider so that you are aware of their recommendations and always follow your surgeon's advice.

You will have a dressing and a compression bandage over the operated wrist joint. These assist with healing. The dressings are to be kept clean and dry to prevent infection. When these are removed, use waterproof dressings when having a shower and do not soak your wrist in the bath or pool until the wounds are fully healed.

After the operation, you may be required to wear compression stockings to help maintain your circulation and reduce the risk of blood clots.

Continue with your exercises on a regular basis as they will help improve your wrist movement and strength as well as help relieve the pain. Physiotherapy may be necessary if stiffness persists.

Your wrist joint is likely to feel stiff, sore and swollen for at least a week. This can last longer if you have arthritis or extensive surgery was required during your operation. Try to keep your operated limb elevated in a sling when you are resting. A cold compress (ice bag or frozen peas wrapped in a towel) can be applied for comfort. Don't apply ice directly to your skin and do not leave the cold compress on for more than 15 minutes every 3 hours.

Do not drive until you are confident you can fully control your vehicle without problems. This can be after 3 weeks from your operation. It also depends on whether you are right or left hand dominant and whether your vehicle has a manual or automatic transmission. Contact your insurance company for advice.

Your recovery time will differ depending on the extent of surgery and condition of your wrist. You should be able to resume your normal activities after four to eight weeks from your operation depending on the severity of your wrist problems and level of fitness and hand dominance.

What are the risks?

Wrist arthroscopy is the third common arthroscopy performed after knee and shoulder arthroscopy. It is generally safe and causes less morbidity than traditional open surgery. In order to make an informed consent, you need to be aware of the risks, complications, prognosis, outcome and limitations of the procedure.

Side effects

These are the unwanted, but usually mild and mostly temporary effects of a successful treatment, for example feeling sick and having a sore throat following a general anaesthetic. After an arthroscopy you will have small scars on your wrist from the cuts.

Complications

This is when problems occur during or after the operation. Most people are not affected.

Complications can include:

- Failure to cure problem, or recurrence. Surgery may have to be repeated.
- Operation can make you worse,
- Deep vein thrombosis and Pulmonary embolism,
- Infection,
- Nerve or Vascular injury / bleeding,
- Tendon injuries,
- Wound problems,
- Intra-articular (joint) injury,
- Regional pain syndrome

The exact risks are specific to you and can differ for every person. Ask your surgeon how these risks apply to you.

Dr Hesham Youssef Sida
FRCS Edin, MSc Orth, BMSc, MBCh
Consultant Orthopaedic & Trauma Surgeon
Tel.: +1(345) 939-2500 / +1(345) 945-5527
Fax: +1(345) 945-3696
Email: caymanhandsurgeon@yahoo.com

More Information:

www.aaos.org
MedlinePlus
National Library of Medicine
National Institute of Health
American Society for Surgery of the Hand