Arthroscopy

Summary

- Arthroscopy is the examination of the inside of a joint, using a special illuminating instrument inserted through a small incision or ‘portal’.
- A common use of the arthroscope is the examination and surgical repair of the knee joint.

Arthroscopy is the examination of the inside of a joint, using a special illuminating instrument inserted through a small incision or ‘portal’. The incisions are usually less than one centimetre in length.

The arthroscope is slender (less than five millimetres in diameter) and has a fibre-optic light source and a magnifying lens attached. Tiny instruments that are capable of cutting or shaving material from within the joint may be inserted through other small incisions, if necessary. A tiny camera mounted within the arthroscope transmits the images of the joint interior to a television monitor.

Diagnosis by arthroscope

A common use of the arthroscope is the examination and surgical repair of the knee joint. Other joints that may be examined with the arthroscope include the shoulder, elbow, wrist, hip and ankle.

Some of the conditions that may be diagnosed or treated by arthroscope include:

- Torn cartilage
- Damaged joint lining
- Torn ligament
- Damage to the knee cap (patella)
- Arthritis.

Medical issues to consider

Before the procedure, you need to discuss a range of issues with your doctor, including:

- Medical history – including any allergic reactions to drugs
- The procedure – including benefits, risks and possible complications
- If you are having a general anaesthetic, assessment by your anaesthetist to make sure you are fit for the medication.

Operation procedure

Before surgery, the area to be examined is shaved and washed with a special surgical scrub to reduce the possibility of infection. The arthroscopy is usually performed under local anaesthetic, which is injected into the area surrounding the joint to be examined.

If further surgery is to be performed, a spinal or general anaesthetic may be used. If you are having a general anaesthetic, you have ‘nil by mouth’ – no food or drink – for a period of time beforehand. After you are given anaesthesia, the surgeon will make a small incision and then pass the arthroscope through the skin into the joint. A special camera sends the images to a television monitor. If necessary, instruments that can cut or shave are inserted into the joint through other small incisions.
Immediately after the arthroscopy

After the procedure, you can expect:
- Healthcare workers will monitor your vital signs.
- You will be offered pain medication.
- You can drink fluids straight away, as long as you don't feel sick.
- Your limb may be raised for a period of time.
- Ice packs may be used to reduce swelling.
- If no further procedure is performed, you should be able to go home the same day.

Complications with an arthroscope

The possible complications following a knee arthroscopy include:
- Infection
- Thrombophlebitis (clots in a vein)
- Artery damage
- Excessive bleeding (haemorrhage)
- Allergic reaction to the anaesthesia
- Nerve damage
- Numbness at the incision sites
- Ongoing pain in the calf and foot.

Taking care of yourself at home

Be guided by your doctor, but general suggestions include:
- You may need to use crutches for a while (up to one week) to take the pressure off your knee joint.
- Raise the affected leg as often as you can for the first couple of days.
- Gently and regularly flex the knee joint, as soon as you feel able.
- A cold pack applied to the joint may help to reduce swelling and discomfort.
- It may be important to keep your weight in check. Follow all dietary recommendations.
- Avoid vigorous activity.
- It may take around one week before you are able to drive your car again.
- Most people can resume their normal activities around three weeks after the procedure, although this depends on individual factors.
- You may need to avoid sports and vigorous physical activity for two to three months.
- Physiotherapy, including special strengthening exercises, may be needed.

Long-term outlook

Arthroscopic surgery can successfully treat many conditions, such as torn meniscus cartilage in the knee. However, certain problems (such as arthritis) tend to have a variable success rate. The scars from the procedure are tiny and unobtrusive. See your doctor if you experience signs of infection, including:
- Red, inflamed or weepy incision sites
- Unusual pain in the knee
- Calf swelling despite elevation.

Other forms of treatment
Alternatives to arthroscopy include:

- Reducing your level of physical activity
- Medications (such as anti-inflammatory drugs) to help reduce the swelling
- A supportive brace or bandage
- Physiotherapy
- Open knee surgery.

Where to get help

- Your doctor
- Orthopaedic surgeon

Things to remember

- Arthroscopy is the examination of the inside of a joint, using a special illuminating instrument inserted through a small incision or 'portal'.
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