

Arthroscopic surgery

What is arthroscopy?

Arthroscopy involves looking inside joints with a telescopic camera. The telescope is inserted through a small puncture wound (portal) made into the joint. Sterile fluid is pumped into the joint under pressure to expand the joint sufficiently to perform an examination. Arthroscopy allows examination under high magnification of joint surfaces, cartilage, ligaments and tendons.

Arthroscopy is first and foremost a diagnostic tool. For certain conditions it may also be possible to perform "key-hole" surgery under arthroscopic guidance e.g. removal of bone fragments in dogs with coronoid disease as a component of elbow dysplasia, debridement/removal of cartilage flaps in shoulder or elbow OCD. Sometimes it is not possible to complete a procedure arthroscopically; e.g. insufficient access to specific structures, fluid leakage around the joint causing the joint to "collapse" around the telescope and impair the view. In these instances it may be necessary to convert to a traditional "open" surgery, or, if this is not possible, to abort and reschedule for a later date.

Arthroscopy is known as "keyhole surgery" because it is performed through very small incisions. Recovery is typically more rapid with less discomfort than with an equivalent "open" surgery. Discomfort after surgery, however, is also affected by what is done inside the joint. In cases where only examination is performed, or relatively quick and simple procedures have been performed e.g. removal of small bone fragments from an elbow using minimal joint manipulation, discomfort may be barely noticeable and resolve in a matter of days. For more heavily muscled joints e.g. shoulder where the portal has to pass through more substantial muscle, discomfort is typically more significant than for lightly muscled joints e.g. elbow.

Outcome and potential risks of surgery

As with any surgery complications may arise and are detailed below, although serious complications are rare.

- Excessive early activity may damage healing tissues e.g. muscle, newly formed cartilage, delaying progress or otherwise affecting longer term outcome.
- Some dogs may temporarily deteriorate after surgery and take several months to recover their pre-surgical state. Causes of deterioration may include ligament strain produced by joint distraction/manipulation during surgery (to aid arthroscope and instrument access), muscle trauma due to the portal (puncture wound) created though muscle to reach the joint and microfractures produced when bone is resected. Management of these dogs may include strictly limited activity in addition to pain relieving medications. Additional physiotherapy including ultrasound, laser and shockwave therapy may be beneficial.
- It is important to have a controlled, gradual increase in activity, similar to human patients undergoing rehabilitation following surgery. If activity is increased too quickly after surgery straining of joint structures may occur. Management is as above.
- Infection is a rare complication follow arthroscopic surgery as it is a "key-hole" procedure performed under strict sterility and antibiotics are administered in the peri-operative period. Should infection occur, early detection and treatment generally results in rapid resolution.
- Arthritis is typically already present at the time of arthroscopy. It is not possible to reverse the arthritic changes in the joint, and arthritis will continue to progress over time.

Postoperative care

An adhesive pad may be covering the wound. This can be removed after several days, or immediately if soiled.

Medications e.g., Pain killers will be dispensed. Ice packs 10 to 15 minutes several times daily may also be helpful in the days following surgery to reduce swelling and improve comfort.

Your dog should be kept confined to **eliminate running and jumping** for the first 6 to 8 weeks: a small single room (or cordoning off a section of a larger room) with non-slip flooring and no furniture may be sufficient. Short leash walks in the garden (a few minutes four to six times daily) are recommended initially to allow toileting.

- One week following surgery: commence lead walking for 5 minutes at a time, two to three times daily.
- Two weeks following surgery: increase lead walking to 10 minutes at a time, two to three times daily. Hydrotherapy may also commence at this time.
- Four weeks following surgery: increase lead walking to 15 minutes at a time, two to three times daily.
- Five weeks following surgery: increase lead walking to 20 minutes at a time, two to three times daily.
- Six weeks following surgery: increase lead walking to 25 - 30 minutes at a time, two to three times daily.
- Maintain confinement **at all other times**; running, jumping and play should be avoided for 6 to 8 weeks.

Hydrotherapy is beneficial for many conditions. You will be advised if hydrotherapy is appropriate for your pet's condition.

Declaration:

I have read the information contained herein and am satisfied I have a sufficient understanding of the procedures my dog is scheduled to undergo, including potential complications that may occur and requirements for aftercare following surgery. I hereby consent for my dog to undergo elbow surgery.

Owner's name:

Dog's Name:

Owner's signature:

Date: