



Veterinary Specialists of Alaska, P.C. Client Information Sheet: Minimally Invasive Surgery: Arthroscopy

Minimally Invasive Surgery: Arthroscopy

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Arthroscopy is the visualization of the inside of a joint using a small camera (arthroscope). A very small skin incision is created to introduce the arthroscope into the joint, allowing thorough inspection of the intra-articular structures (structures within the joint). The arthroscope provides a close-up, magnified view that is often much better than the view provided by a standard “open” approach. This is of enormous benefit in establishing a diagnosis when the findings of a physical examination and radiographs are inconclusive. Arthroscopy is performed in sterile manner in the operating theater.



Arthroscopy of the stifle (knee joint). The inside of the joint can be seen on the monitor.

Depending upon the pathology identified, some conditions can be treated arthroscopically by introducing specially designed instruments through additional small holes (portals) into the joint. Multiple small portals are much less traumatic than a single open approach. In addition to providing a better view of the intra-articular structures, arthroscopy results in significantly less trauma to the surrounding tissues. Consequently, patients treated arthroscopically experience less postoperative pain and enjoy a more rapid recovery from surgery than patients treated through a standard open approach. Therefore, if at all possible, when there is intra-articular (inside the joint) pathology, we will try to address it arthroscopically.

Arthroscopy can also be used adjunctively with an open approach. For instance, when performing a tibial plateau leveling osteotomy (TPLO), a technique applied for management cranial cruciate ligament rupture (see handouts on cruciate ligament rupture and TPLO on our website). The inside of the joint can be inspected arthroscopically prior to performing the stabilization procedure. This allows inspection of the cruciate ligaments, menisci and articular cartilage without actually opening the joint.

The joints most commonly evaluated and treated arthroscopically are the shoulder, elbow and stifle (knee). Images depicting typical treatment scenarios for these joints are provided on the next pages. Arthroscopic evaluation of the carpus (wrist), hip and hock (ankle) have been described, but the need for arthroscopic evaluation of those joints is less frequent.

Please contact us if you feel arthroscopy may be beneficial for your pet.

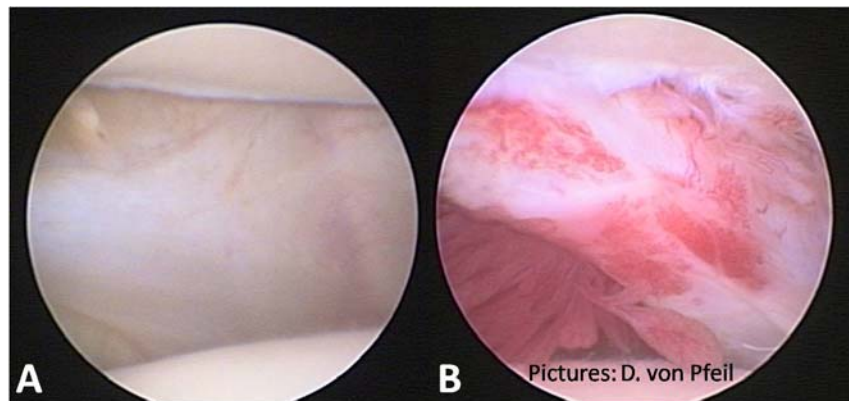


Veterinary Specialists of Alaska, P.C. Client Information Sheet: Minimally Invasive Surgery: Arthroscopy

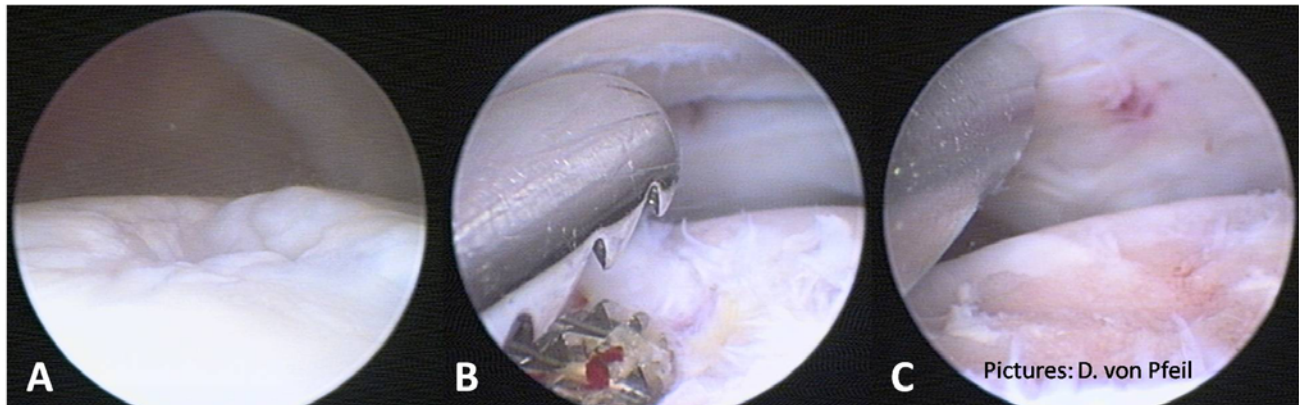
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Arthroscopic procedures offered at Veterinary Specialists of Alaska, P.C.

Shoulder: intra-articular exploration, osteochondrosis dissecans (OCD) treatment, and bicipital tenosynovitis treatment (inflammation of the biceps tendon). See specific handouts for more information on these disorders.



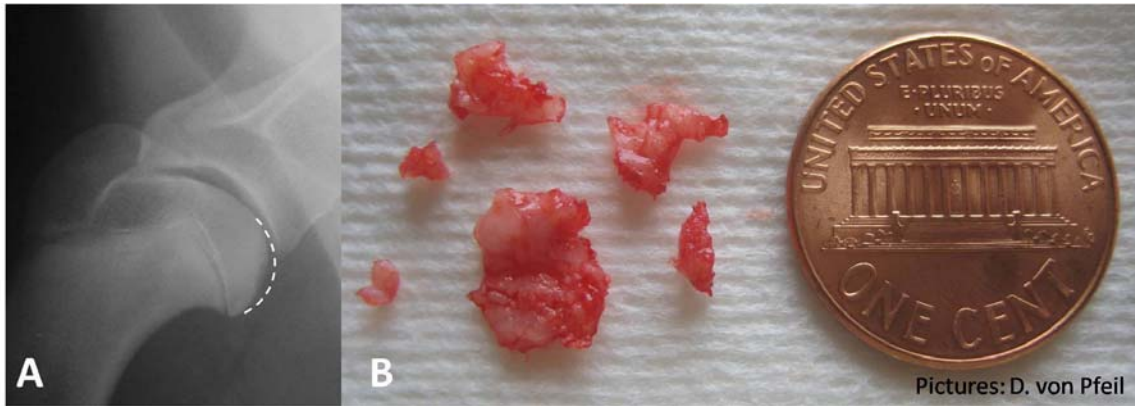
Normal (A) and inflamed (B) medial glenohumeral ligament of the shoulder.



A: Arthroscopic view of OCD. B and C: Débridement of diseased cartilage & establishment of a healthy joint surface.



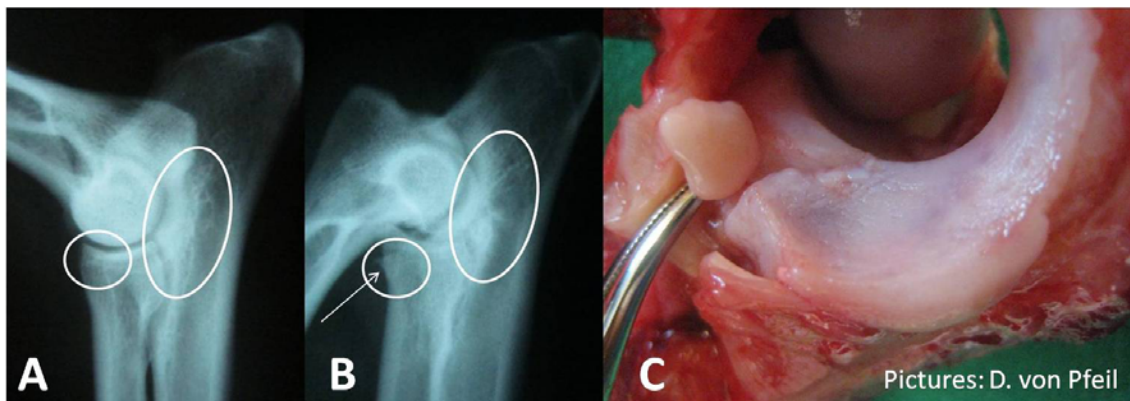
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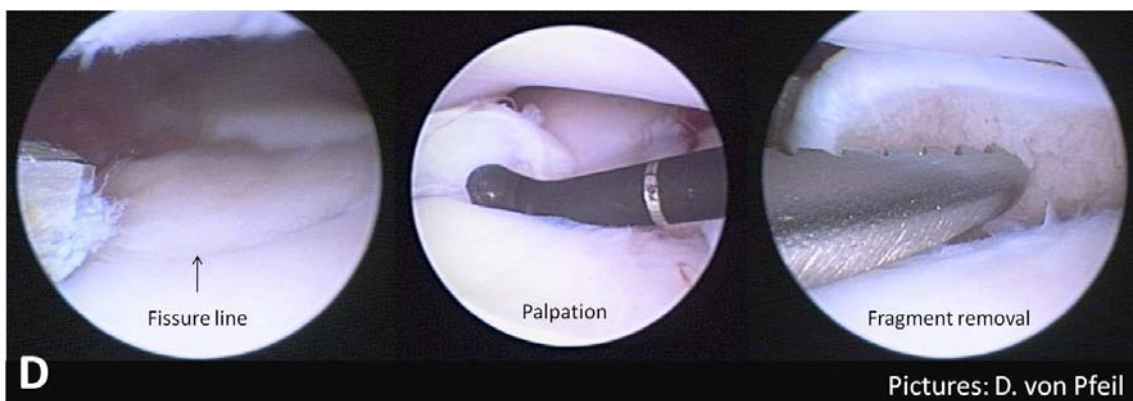
A: Osteochondrosis dissecans (OCD) lesion of the shoulder. Note the indentation of the articular cartilage. (Normal joint surface outlined by the dashed line). B: Fragments of an OCD lesion in comparison to coin.

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Elbow: intra-articular exploration, removal of a fragmented medial coronoid process (FCP), and osteochondrosis dissecans (OCD) treatment. See specific handouts for more information on these disorders.



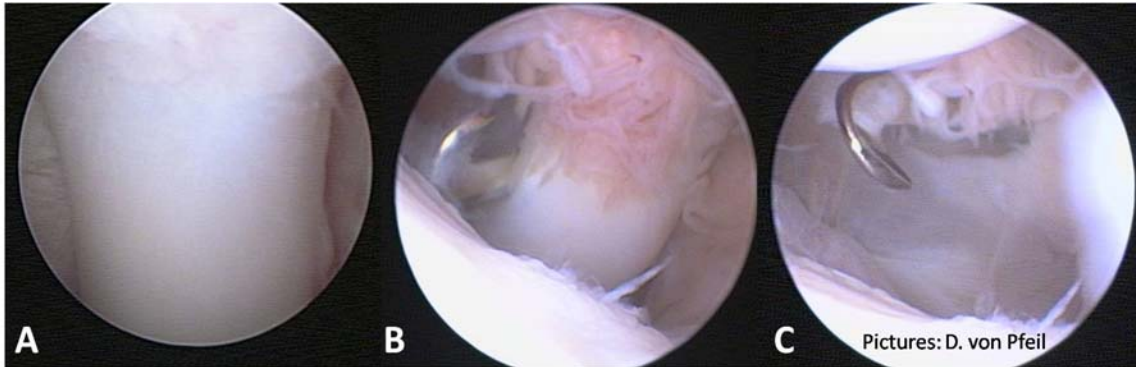
A: Normal elbow joint. B: Elbow joint with fragmented medial coronoid process (FCP, arrow) and development of arthritic changes (compare the irregular and increased white appearing bone in the ellipse and circle of pictures B with A). C: FCP, gross anatomy. D: Arthroscopic removal of FCP.



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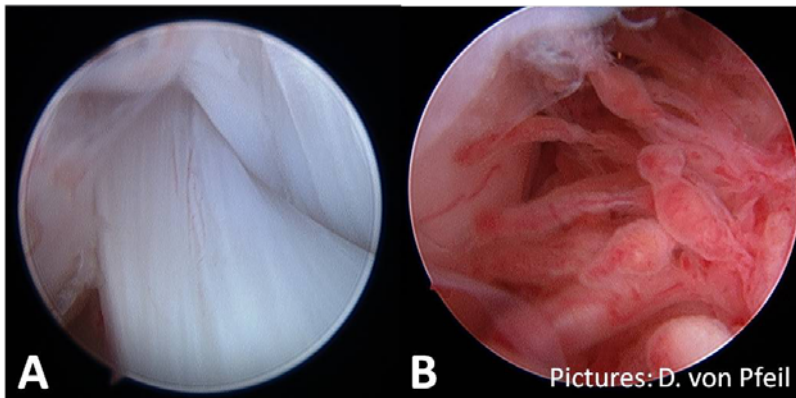
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A: Normal appearing biceps tendon. B: Diseased biceps tendon prior to, and C: after biceps tendon release.

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Stifle (Knee): intra-articular exploration, removal of ruptured cranial cruciate ligament, removal of torn medial meniscus, osteochondrosis dissecans (OCD) treatment. See specific handouts for more information on these disorders.

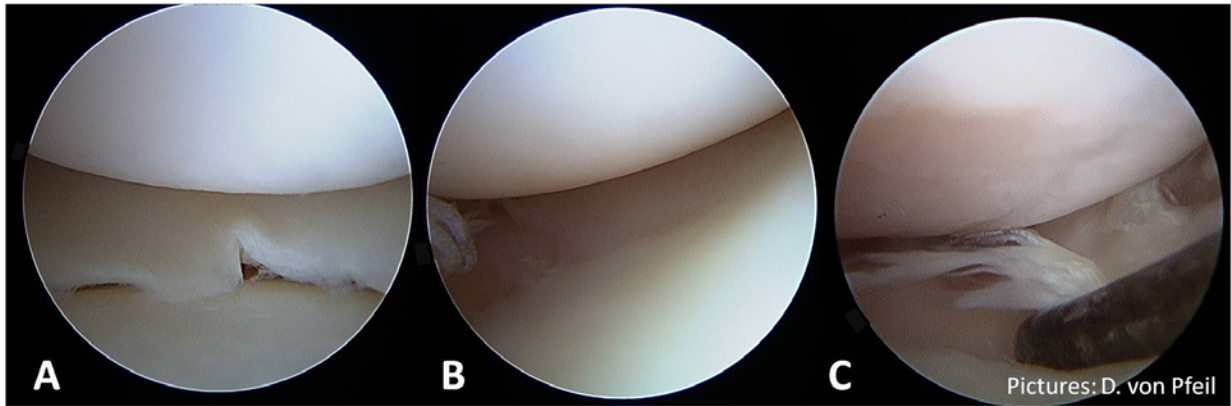


Stifle (Knee). A: Normal cranial cruciate ligaments. B: Severe inflammation

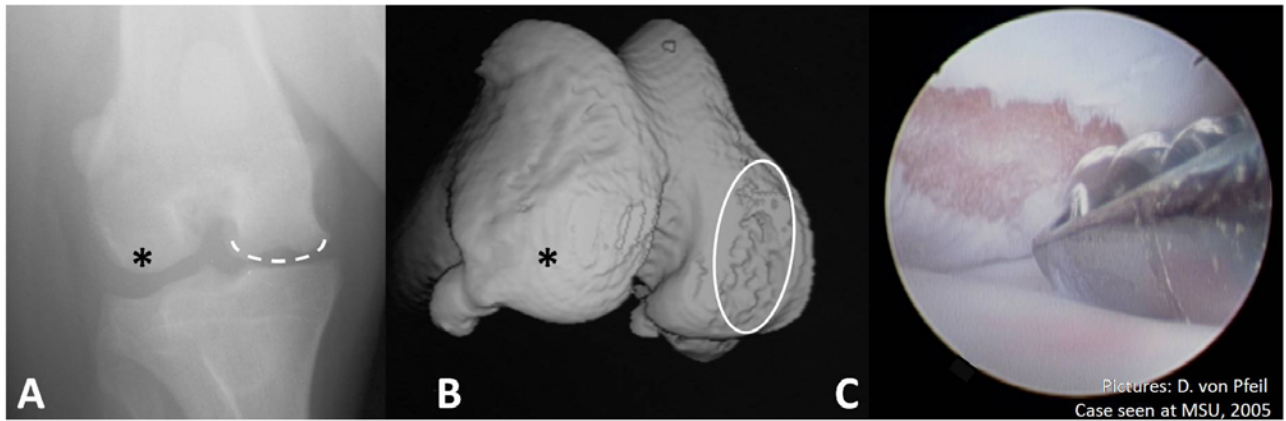
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A and B: Arthroscopic appearance of a normal meniscus. C: Palpation of a torn medial meniscus in the stifle joint.



A: Radiograph (x-ray) of a stifle joint with OCD. Compare normal (star) with diseased cartilage (white dashed line, ellipse).
C: Arthroscopic treatment of the OCD lesion using an arthroscopic shaver in the stifle (knee) joint.