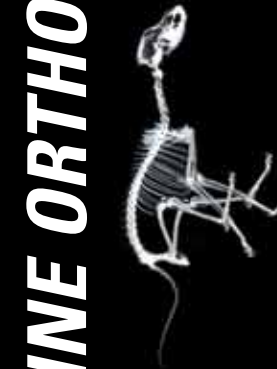
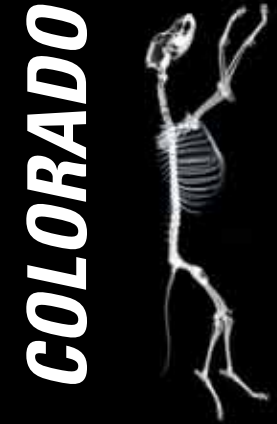


# COLORADO CANINE ORTHOPEDICS



VETERINARY  
SPECIALTY CENTER

## SECTION C

*Continued...* **ARTHROSCOPY – WE’LL SHOW YOU AROUND THE JOINT**

Over the past 10 years, technologic advancements in arthroscopic equipment have resulted in clearer, crisper and brighter pictures. Precise color reproduction and greater depth of field have enhanced the surgeon’s ability to view intra-articular structures accurately. Scopes and cameras have become more compact and ergonomic making their use more efficient.

Newer technology has also allowed intra-operative still and video photography. At Colorado Canine Orthopedics we archive intra-articular pictures or videos of all patients undergoing an arthroscopic procedure. If a patient ever has an additional problem within the joint, we have an accurate record for comparison.

Arthroscopy has many advantages over open surgery. Arthroscopy is minimally invasive and allows for more thorough and magnified inspection of the joint. Using arthroscopy, diagnoses can be made that would otherwise be missed by the naked eye with open arthrotomy. As an example, we can diagnose early partial ACL tears that precede the development of osteoarthritis (fig.2).



Figure 2

These patients can experience moderate to severe lameness with only a small partial tear that was all but impossible to identify prior to advancements in arthroscopic equipment and techniques.

Treatment in areas difficult to access by open arthrotomy such as the caudal aspect of the meniscus, are more precise using arthroscopy. In fact, arthroscopy is so accurate, other redundant diagnostic imaging methods such as MRI can be avoided in many cases. When it is unclear which joint is responsible for the lameness, several joints can easily be scoped during one anesthetic period. The most common examples are the elbow and shoulder in front limb lameness cases.

One of the primary advantages of arthroscopy is the reduction of morbidity. By avoiding open surgery, post-operative pain and discomfort are minimal, recovery is significantly quicker and hospitalization time is shorter. Furthermore, studies have demonstrated that simply put, open arthrotomies induce osteoarthritis. While arthroscopy is not inexpensive, quicker recovery, shorter hospitalization

time and avoidance of redundant imaging, may result in less overall cost.

Although nearly all joints can be viewed with an arthroscope, four canine joints are most frequently examined with this instrument. These include the stifle, tarsocrural, shoulder and elbow joints. Many advocates of triple pelvic osteotomy also frequently scope the coxofemoral joint to determine cartilage health prior to what we consider one of the most invasive procedures performed. As engineers make advances in electronic technology and new techniques are developed by veterinary surgeons, other joints may be treated more frequently in the future.

In most cases arthroscopy is used as a diagnostic tool as well as a treatment modality. The most common uses in canine patients involve juvenile bone diseases and ligament injuries in the stifle and glenohumeral joints. At CCO, the canine stifle joint is the joint most commonly scoped. Any dog suspected of having an ACL tear deserves a minimally invasive arthroscopic diagnosis before the surgeon picks up the scalpel.

Early partial ACL tears and the concept of ACL disease never understood before is becoming an everyday diagnosis thanks to arthroscopy. Meniscal inspection, debridement and even repairs have undergone recent advancements specifically related to arthroscopy and more sophisticated instrumentation.

The elbow joint is the second most commonly scoped joint at CCO. Through arthroscopy, huge advances have been made regarding canine elbow dysplasia. New concepts involving the medial coronoid process and medial compartment of the joint have lead to innovative treatment options in young and old dogs with elbow disease (fig.3).



Figure 3

Equally exciting advances have been made regarding the canine shoulder joint. Osteochondritis dissecans leading to an osteochondral flap can be diagnosed and treated completely via arthroscopy (fig.4). The procedure is so minimally invasive most patients can actually be discharged the day of surgery.

Glenohumeral ligament tears (fig.5), biceps tenonitis and subscapularis insertion disruption (fig.6) have all been better described, diagnosed and treated thanks to the arthroscope.



Figure 4



Figure 5



Figure 6

**The bottom line is, with today’s technology and available veterinary specialists, almost no canine joint should undergo an open exploration. Clients are able to take their pets home the day of surgery, post-operative morbidity is reduced and in some cases the client incurs less expense. Examples of video and still arthroscopic images can be found by visiting our website at [CanineOrtho.com](http://CanineOrtho.com).**