Wheat Ridge Veterinary Specialists

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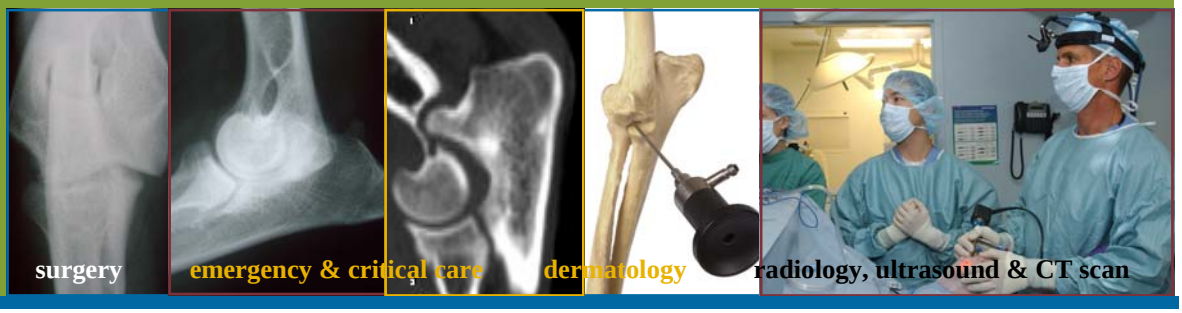
internal medicine



Elbow Dysplasia • Definition

DYSPLASIA = Abnormal tissue development. (Stedman's Medical Dictionary)
- This term can apply to any tissue or organ system of the body -

Elbow Dysplasia, regardless of degree or severity, always results in the development of progressive osteoarthritis in the affected joint(s). Dogs typically carry 60% of their body weight on their front limbs; therefore, any condition that affects the front limbs (eg. elbow dysplasia) is serious and can be very crippling. Treatment recommendations for ED are dependent upon various factors, including the age at which the condition is diagnosed and the degree to which the dog is symptomatic. No single treatment modality has been shown to completely arrest the progression of osteoarthritis. However, it is acknowledged by the "International Elbow Working Group" and board certified surgeons across the country, that early recognition and early surgical intervention offer the best hope for limiting progression of the osteoarthritis that will otherwise develop. The most accurate way to diagnose ED is with X-rays and CT or CAT scan technology. State-of-the art surgical intervention at this time involves joint evaluation and treatment via arthroscopy. The use of arthroscopy provides a ***minimally invasive*** means by which to visually evaluate the joint, record and document the degree of cartilage damage, remove coronoid bone/ cartilage fragments (chips), and smooth rough, irregular, or incongruent joint surfaces. The loose fragments of bone and cartilage found within an elbow joint affected by dysplasia are not only a manifestation of the disease, but also an accelerant to the development of osteoarthritis. Keep in mind the analogy that ED is like a shoe that is too tight: it still works but it hurts to walk in, and there are pressure points present that can cause blistering. Now, place a pebble in the "too tight" of a shoe analogy, and you can imagine how that might increase the discomfort of the shoe as well as increase additional injury to the foot – as in the pebble digging into the tissue of the foot. This is similar to what is going on in an elbow joint affected by dysplasia: the joint does not fit together well, pressure points are present which result in fragmentation and erosion of the articular cartilage, and loose or fragmented pieces of cartilage and/or bone are present that increase the discomfort within the joint and worsen the arthritis. Early removal of loose fragments and smoothing of rough joint surfaces makes the joint more comfortable and removes one propagating cause of arthritis; however, it does not change the underlying fact that the joint still does not fit together perfectly. Additional treatment recommendations include long-term management for osteoarthritis such as: weight reduction, moderation in activity, anti-inflammatory medications (NSAIDs), cartilage protective agents (nutraceuticals), disease modifying osteoarthritis drugs (DMOADS), Eastern Medicine techniques (acupuncture), and specific diets for joint disease that have higher levels of omega fatty acids.

Following arthroscopy treatment in which dead, damaged, devitalized, fissured, or fragmented articular cartilage is removed, a **six (6) week** period of rest is advised to allow for proper healing. Arthroscopic treatments such as microfracture and/or abrasion chondroplasty, result in release of stem cells from underlying bone marrow to replace the damaged cartilage. These stem cells form in a blood clot or scab on the injured areas in the joint where the damaged cartilage was removed. Over time, the stem cell blood clot transforms into new cartilage. Controlled activity and avoidance of trauma to the joint during this period of restoration is critical to insure that the stem cell blood clot is not knocked loose from the healing joint surface.