



NEW ZEALAND VETERINARY ASSOCIATION

ELBOW DYSPLASIA SCHEME

VETERINARIAN - EXPLANATORY LEAFLET

Elbow Dysplasia describes several conditions that result in the failure of normal elbow joint development in dogs. The three major developmental anomalies are fragmented medial coronoid process, osteochondrosis of the medial humeral condyle and ununited anconeal process. Studies of several breeds have shown a strong hereditary basis for some of these diseases. It has been well established overseas that selectively breeding dogs that are radiographically free of this disease can reduce disease incidence significantly.

Screening is based on assessing a single fully flexed mediolateral radiograph of each elbow of dogs one year of age and over. Elbows are evaluated radiographically for the presence of a primary lesion and evidence of arthritis. Dogs with a primary lesion are graded dysplastic regardless of the extent of arthritis.

Grades given by the panel for each elbow are:

0	No evidence of dysplasia
1	Mild arthritis
2	Moderate arthritis
3	Severe arthritis

In the majority of situations, if elbow dysplasia is present it can be detected at one year of age. However, a small percentage of dogs do not have radiographic evidence of arthritis until two years of age. In view of this variation, in order for a dog to become fully certified as radiographically free of elbow dysplasia it must be radiographed when older than two years of age.

Any dog One year of age or older receiving a 0 score in both elbows attains an ACCREDITED status. ACCREDITED status means that no evidence of dysplasia is present radiographically and, in accordance with current knowledge of this disease, would indicate the dog does not phenotypically have elbow dysplasia. It must be remembered that elbow dysplasia, like hip dysplasia, is multifactorial in aetiology and phenotype does not correlate 100% with genotype.

SUBMISSION REQUIREMENTS

Breeders have the choice of submitting dogs when over 1 year (can be done concurrently with hip radiograph) or waiting until two years before submission. Dogs between one and two years with a 0 score in each elbow are eligible for re assessment when over two years. In making the grading system two tiered the New Zealand scheme can combine statistical data with any other scheme internationally and hopefully will have fewer false negative results.

For routine screening of dogs one year and older you must submit:

1. Two radiographs, a flexed mediolateral view of each elbow (one view per radiograph)
2. Completed submission form
3. Copy of dog's registration papers
4. Cheque for appropriate amount payable to NQVS.

NB: Repeat submissions for accredited status must be accompanied by the original certificate. Dogs must be at least one year old before they can be scored by the panel.

RADIOGRAPHIC QUALITY AND POSITIONING

General anaesthesia, although not mandatory, is recommended to optimise patient positioning and minimise movement artefact. The elbow should be fully flexed to allow visualisation of the cranioproximal aspect of the anconeal process. A table top (**no grid**) technique must be used. Radiographs should be of high detail and sufficient quality to enable good visualisation of bone trabeculation and bone margins. One view per radiograph is required. Film size should be either 18 x 24cm or 24 x 30cm.

RADIOGRAPHIC IDENTIFICATION

Each radiograph must be identified in **two** ways: . The relevant details need to be filled in by the submitting veterinarian.

1. **Permanently (X-RITE tape or similar, darkroom imprinter). This label must include:**
 - a. The dog's **NZ Kennel Club name**, and number
 - b. Date of radiography
 - c. Left or right marker indicating which elbow is being radiographed
 - d. Microchip number
2. **Quick stick non-removable label supplied by NZVA.** This must be completed in full and stuck to the radiograph without obscuring either the image or the permanent identification. The label should be positioned to enable easy legibility when the radiograph is placed on a viewer in the conventional manner, and signed by the veterinarian.

New requirements

3. It is now a requirement that veterinarians submitting radiographs for evaluation in the HD/ED scheme must **verify** the identity of the animal by scanning and confirming the animal's **microchip number** against the pedigree/ownership papers. This number must now be included on the labels and radiographs and submission forms

SCHEMATIC ILLUSTRATION

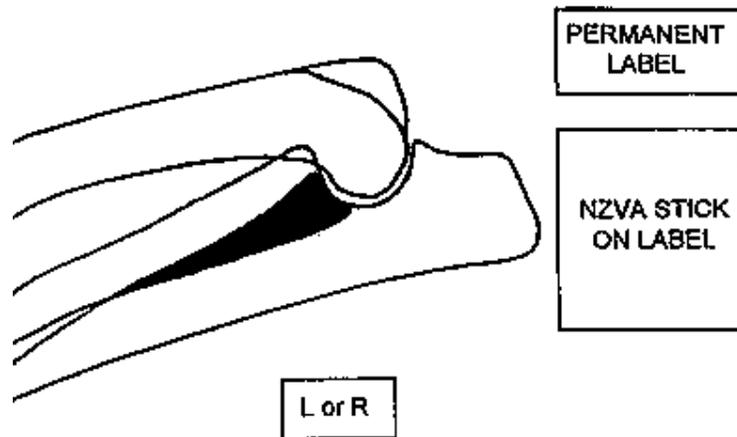
One view per radiograph. Elbow must be flexed sufficiently to show the anconeal process clearly.

- Radiograph labelling
- Radiograph orientation

REASONS FOR RADIOGRAPH REJECTION

The full fee is incurred if radiographs are rejected. However, replacement radiographs will be evaluated for a reduced fee.

1. Documentation incomplete
2. Radiograph of insufficient quality, eg: positioning, detail
3. Radiograph identification incomplete.
4. Incorrect identification of dog (eg 'Bowzer Brown' instead of full NZKC Name & Number)



RETENTION OF RADIOGRAPHS BY SUBMITTING VETERINARIAN

Radiographs are returned to the submitting veterinarian when evaluation is completed. The owner of the dog waives ownership of the radiographs on submission of radiographs to the panel. **Radiographs are legal documents and must be retained by the veterinary practice that makes them.**

HANDLING OF SUBMITTED RADIOGRAPHS

The elbow panel meets fortnightly to evaluate all radiographs submitted. Maximum delay should not exceed four weeks.

COMPLETION OF FORMS

The submission form is in triplicate. The elbow dysplasia form must be completed in full even when elbow radiographs are submitted with a hip dysplasia radiograph and form.

SCHEME SUPPORT

It is imperative for the success of any scheme attempting to evaluate disease prevalence within a population that all radiographs are submitted. This is especially important in those cases where there may be evidence of extensive arthritis. Veterinarians are often asked by clients, "Is it good enough to submit to the panel?" Failure to submit cases with obvious disease results in the scheme statistics underestimating the prevalence and severity of the problem within any breed.

It is in the interests of all surveillance schemes that radiographs submitted are not pre-selected.