Radiographic Procedure and Scoring of Elbow Dysplasia (ED) in the Dog

(Requirements for the IEWG standardized screening procedure, updated version 2011)

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Radiographic technique

1. Minimal age for official scoring "sound" is 12 months. Some breed clubs have issued specific requirements. Earlier scoring "dysplastic" is possible in dogs with obvious primary lesions. **Dogs showing an elbow lameness should get radiographed at any age.**
2. Both elbows are radiographed.
3. Rare Earth screens with a speed of 200 or less are recommended in film-screen systems.
4. The elbow is placed directly on the cassette, no grid is needed.
5. The beam is collimated to improve image quality (does not apply in digital systems).
6. For the mediolateral projection the elbow is flexed (Fig. 1, 45-60° opening angle between humerus and radius), resulting in concentric superimposition of the humeral condyles. The medial coronoid process (MCP) itself is best identified on a mediolateral view with the limb extended and 15° supinated (Fig. 2, very importand in GSD). Good results are achieved with a 50 – 60 kV-setting.
7. A craniocaudal 15° pronated view is strongly recommended to identify OC lesions (Fig.3, not so importand in GSD because OCD is rare).
8. Radiographs are permanently marked with a) the date of the examination, b) the identity of the dog, c) the identity of the owner of the dog and d) the clinic making the study.

Positioning elbow joint, radiographs
Figure 1
Mediolateral view, 45 ° flexed

Mediolateral view, 120 ° extended

Figure 2

Figure 3
Cranio-15°lateral-caudomedial view