



## **Intervertebral disc disease (IDD): Instructions for radiography according to the Finnish Kennel Club protocol**

Anu Lappalainen / 13.6.2015

Images available also: <http://www.kennelliitto.fi/selkaohjeen-kuvat>

### **General instructions:**

The dog must be sedated for the radiography and the microchip must be checked.

The radiographs must be marked permanently (e.g. lead tape) with the dog's registration number or microchip number and the date of the radiography. The side marking is mandatory in the ventrodorsal projection.

### **Radiographs:**

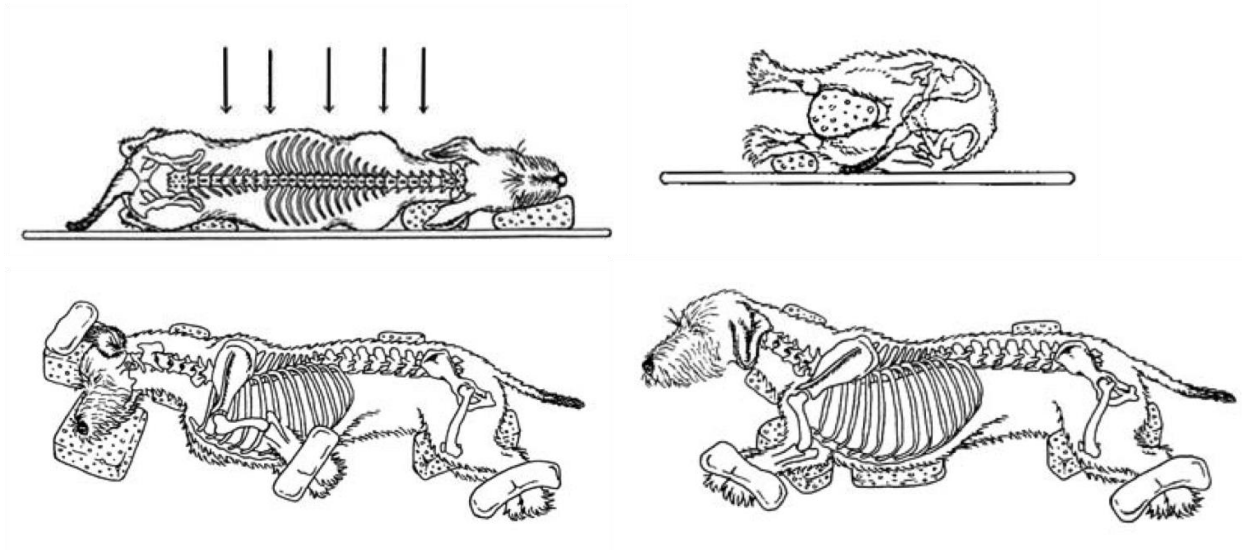
In all images the spine must be parallel to the table without rotation of the spine. Use foam rubber supports (Figure 1). **All disc spaces must be clearly visible.**

**At least 6 radiographs** are needed:

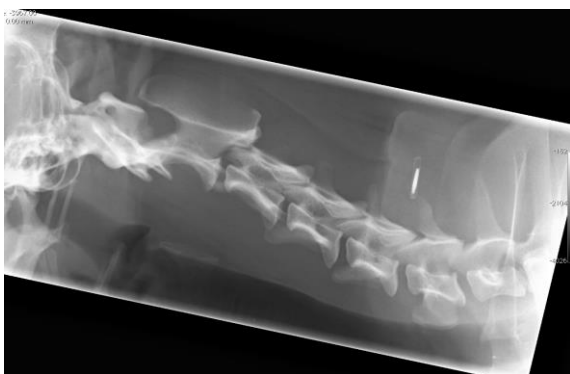
- 1) Lateral cervical spine (**C1-C7**) (Figure 2). The front limbs are pulled back. Centering in the mid cervical spine.
- 2) Lateral cervico-thoracic junction (Figure 3). Centering int the C-T junction.
- 3) Lateral thoracic spine = **C7 – L1** covered preferably in one image (Figure 4).
- 4) Lateral thoracic-lumbar junction (Figure 5). Centering int the T-L junction.
- 5) Lateral lumbar spine = **T13 – Cd1** covered preferably in one image (Figure 6). If this is not possible, two radiographs are made (T13 – L7 and L5 – Cd 1). The cranial border of the iliac bones can be used as a land mark for identification of the vertebrae.
- 6) Ventrodorsal projection of the sacrum and at least 2 most caudal lumbar vertebrae (Figure 7A). Hip radiograph (Figure 7B) can be used, if the caudal lumbar vertebrae are visible.



**Figure 1** Positioning



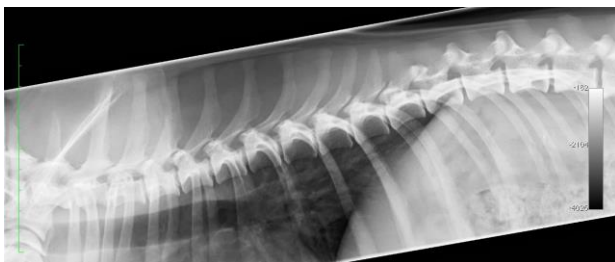
**Figure 2** Cervical spine



**Figure 3** C-T junction



**Figure 4** Thoracic spine

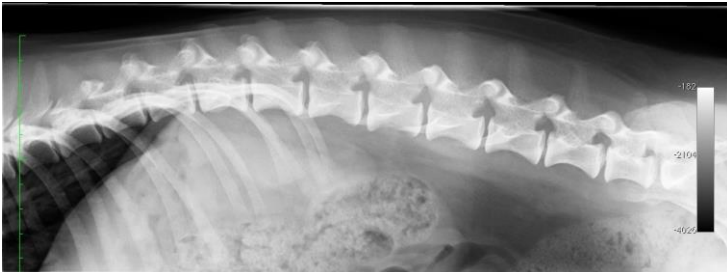


**Figure 5** T – L junction





**Figure 6** Lumbar spine



**Figure 7A** Sacrum VD



**Figure 7B** Hips





## Lumbosacral transitional vertebra (LTV) and spondylosis: Instructions for radiography according to the Finnish Kennel Club protocol

Anu Lappalainen / 30.11.2014

### General instructions:

The dog must be sedated for the radiography and the microchip must be checked.

The radiographs must be marked permanently (e.g. lead tape) with the dog's registration number or microchip number and the date of the radiography. The side marking is mandatory in the ventrodorsal projection.

### Radiographs:

For identification of the LTV type, information of the exact number of thoracic and lumbar vertebrae is essential.

**At least 3 radiographs are needed:**

- 1) Lateral thoracic spine  
= **C7–L1** covered preferably in one image (Figure 1). If this is not possible, two radiographs are made (C7–T11 and T10–L1 [Figure 4]). The anticlinal vertebra (T10 or T11) can be used as a landmark for identification of the vertebrae.
- 2) Lateral lumbar spine  
= **T13–Cd1** covered preferably in one image (Figure 2). If this is not possible, two radiographs are made (T13–L7 and L5–Cd 1). The cranial border of the iliac bones can be used as a land mark for identification of the vertebrae.
- 3) Ventrodorsal projection of the sacrum and at least 2 most caudal lumbar vertebrae (Figure 3A). Hip radiograph (Figure 3B) can be used, if the caudal lumbar vertebrae are visible.

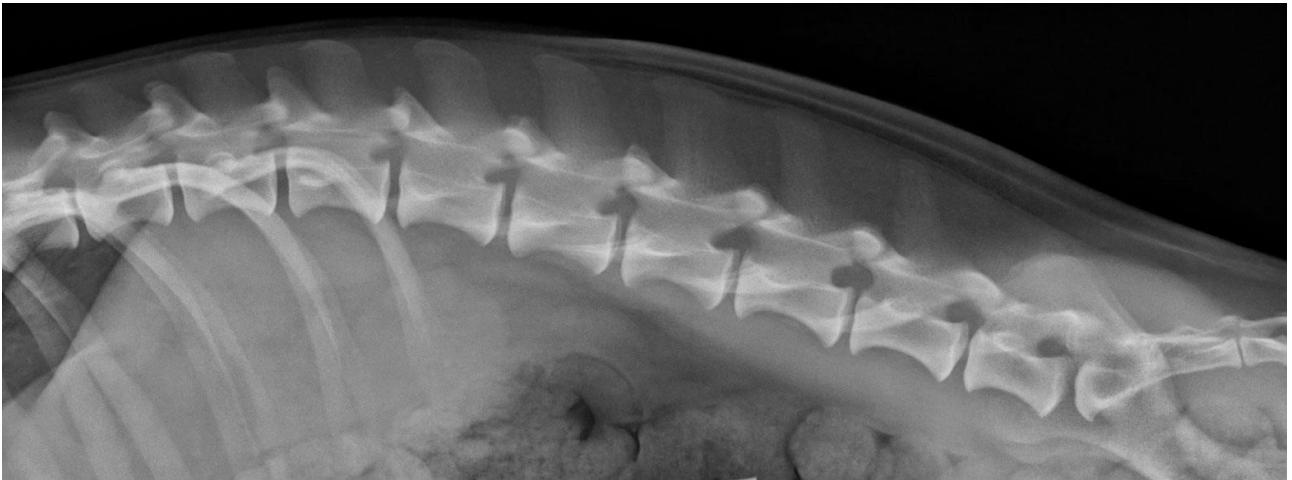
The radiographs should be straight: the spine parallel to the table and without rotation (use foam rubber supports).

**Figure 1** Thoracic spine





**Figure 2** Lumbar spine



**Figure 3A** Sacrum VD





**Figure 3B** Hips



**Figure 4** T-L junction

