

Guidelines for screening and grading of shoulder osteochondrosis (Shoulder Osteochondrosis Guidelines)



Approved by the Board of the Finnish Kennel Club 6th October 2016.

Amended by the Board on 21st November 2020, 19th August 2021, 27th May 2022, and 5th October 2023. Amendments are valid as of 1st January 2024.

This document is a translation. In cases of doubt, the original document in Finnish will prevail.

These guidelines complement the Rules for Combating Hereditary Defects and Diseases (Council 26th November 2023) and the Directives for the Programme for Combating Hereditary Defects and Diseases (PEVISA Guidelines, Board 24th November 2023).

1 General provisions

Shoulder osteochondrosis is subject to radiographic/CT screening and shoulder joints are graded to collect data for breeding purposes. The Finnish Kennel Club accepts certificates issued in accordance with these guidelines.

The certificate must be issued in the dog owner's home country or in Finland.

These guidelines must be followed when images are taken of a dog for the purpose of having the images graded by the Finnish Kennel Club. The images and an appropriate referral to radiographic screening are sent to the Finnish Kennel Club, which then issues an official certificate. The official shoulder status of the dog is determined by the inferior shoulder joint.

The dog owner must inform the veterinarian if the dog has been subject to shoulder joint surgery. Information about surgery is recorded on the referral to radiographic screening. Medical records regarding the surgery are attached. A dog operated due to shoulder osteochondrosis is graded as "operated". In index calculations, the grade "operated" is comparable with the worst result of the grading scale and is considered equivalent to it as regards breeding.

If the dog has been subject to an accident (a medical report and radiographs must be attached to the referral), due to which the joint in question cannot be graded, the dog receives the grade "no grading" for that joint. In this case, the dog's result is determined only by the other joint.

Radiographs/ CT images are archived centrally, at a location set by the Finnish Kennel Club, for at least ten years, after which they can be destroyed. However, the Finnish Kennel Club keeps radiographs from the first two weeks of March each year for possible further research purposes.

2 Screening protocol

The Board of the Finnish Kennel Club appoints veterinarians authorized to grade radiographs. A scrutineer appointed by the Finnish Kennel Club is informed of the dog's breed, age, sex, and registration number.

Only radiographs sent on Finnish Kennel Club's referral, filled out by the veterinarian who has taken the images, can be subject to grading.

Only radiographs/CT images taken of a dog that is identified with an ID number approved by the Finnish Kennel Club can be subject to grading. A dog's ID number must always be verified when images are taken.

A fee is charged for an official certificate. The certificate is sent to the recipient recorded on the referral form. The grading result and the name of the scrutineer are recorded in the Finnish Kennel Club's database.

Information on relevant additional findings found in the images can be recorded in the certificate.

A dog can be radiographed again no earlier than 12 months after the previous images have been taken. However, if new images are taken for technical reasons, they should be taken as soon as possible. The scrutineer will get access to all previous images of the dog. The grading may change when new images are taken.

Screening results for imported dogs, foreign stud dogs/brood bitches, and imported semen can be approved if the grading scale is equivalent to the one used by the Finnish Kennel Club, and the images have been taken in a position equivalent to the requirements set by the Finnish Kennel Club. The certificate must state that the dog has been identification marked and verified at the time of the examination.

If a certificate issued in accordance with these guidelines is needed for a foreign dog, a dog with an ID number (microchip) can be radiographed/CT scanned in accordance with these guidelines and images can be submitted to the Finnish Kennel Club for grading (an explanation why a certificate issued in Finland is requested for a foreign dog must be attached).

3 Grading scale

- **OC Unaffected** The caudal humeral head has a round shape and an even surface.
- **OC Affected** A flattened or radiolucent area on the caudal humeral head.
- **OC Open to interpretation** Very mild or atypical changes.

4 Radiographic procedure

A dog must be at least 12 months of age when radiographed. However, if shoulder radiographs have been taken on the dog before the age of 12 months, it is recommended that these are submitted as additional images.

Radiographs are sent to the Finnish Kennel Club via a submission portal. Radiographs are submitted digitally in DICOM format.

Radiographs must be marked in a way that cannot be altered afterwards (radiographic lead). This also applies to digital radiographs. Mandatory information that must be included in radiographs:

- date
- registration number of the dog (or ID number)
- side marker (internationally recognizable, for instance sin, dex, R, L).

The dog must be under sedation when images are taken, and details of sedative preparations used are recorded on the referral to radiographic screening. Both shoulder joints are radiographed on the same occasion.

Shoulder joints are radiographed in mediolateral projection. The leg subject to imaging is pulled in a cranioventral direction and the leg on top of it in a caudal direction. The cervical spine is positioned dorsally so that its structures do not cover the shoulder joints. The X-ray is focused on the joint space and the image is cropped well. The quality of images must allow the details considered in grading to be clearly visible. Over and underexposure as well as graininess may prevent the grading of images.

If the images are open for interpretation, additional images in different positions may be requested and, after a certain amount of time, also new images.

5 CT scan

A dog can also be CT scanned for an official grading issued by the Finnish Kennel Club. The scan must be performed at a clinic approved by the Finnish Kennel Club, in accordance with the method description for CT scans.

A grading can be issued or a previous grading may be changed based on CT images. Once a dog has been graded on CT images, it may no longer obtain a grading based on radiographs and the result cannot be appealed.

If a CT scan is performed to complement a previous radiographic evaluation, the CT scan can be performed without applying the minimum time limit set for taking new radiographs.

6 Appeal procedure

Appeals on certificates issued based on radiographs are processed by an expert panel appointed by the Finnish Kennel Club. An appeal is to be made by the dog owner in writing. CT screening results cannot be appealed.

Appeals must be submitted within 90 days from the day when the certificate was sent to the owner. The appeal fee is twice the amount of the grading fee. The appeal fee is reimbursed if the official shoulder status, determined by the inferior joint, changes.

The decision of the panel is final, it cannot be appealed, and no new radiographs can be sent in for evaluation once an appeal has been made. The shoulder status of the dog can however change based on a grading issued on CT images.

7 Exceptions

In individual cases and for compelling reasons, the Board of the Finnish Kennel Club may issue an exemption from the provisions in these guidelines.