



## *Study on gait analysis in dogs with osteoarthritis by treadmill measurement*

Do you have a dog with osteoarthritis with visible lameness and would like to have it assessed by specialized veterinarians?

Your dog has a healthy musculoskeletal system and you are interested in a complete orthopedic assessment and a general health check?

Is your dog older than 1 year and weighs between 10 and 50 kg?

Then your dog could take part in our study!

In order to assess whether your dog meets the inclusion criteria for the study, please send us the following information by e-mail beforehand:

1. first and last name of owner incl. telephone number for consultation
2. name of your dog
3. age
4. sex (neutered yes/no, last heat for female dogs)
5. breed, if mixed breed description/suspicion
6. weight
7. please state whether participation as a healthy or arthrosis patient
8. if visible lameness, please describe in detail (duration, limb etc.)
9. x-rays, if available
10. other previous illnesses
11. veterinary reports, if available
12. current medication

After receiving your response, we will contact you promptly to arrange an appointment!

The findings from the general and orthopedic examination, gait analysis on the treadmill, X-ray findings and the blood test are also decisive for inclusion in the study.

There are **no costs** for you, even if your dog shows findings in the on-site examinations that do not allow participation in the study.

## *Information on the study*

### *Summary of the study:*

In this study, the treadmill analysis of healthy dogs and dogs suffering from osteoarthritis is used to determine precise parameters in the gait pattern to enable an objective differentiation between these two groups.

### *Aim of the study:*

The focus of this study is the joint health of your dog. The aim of the study is to be able to offer more targeted diagnostics and better therapy for dogs with osteoarthritis. A special treadmill with integrated gait analysis for dogs has been developed for this purpose.

The measurements from this treadmill should make it possible to differentiate between dogs with osteoarthritis and dogs with a healthy musculoskeletal system at an early stage and to visibly recognize improvements in the clinical picture.

Research in osteoarthritis is of great importance, as it is a not uncommon chronic disease affecting many dogs, especially older ones. It is usually associated with pain and restricted movement. The correct and early diagnosis as well as a therapy of the symptoms adapted to the dog can have a great impact on the quality of life and the desire to move.

### *Procedure of the study:*

As part of the study, in addition to the treadmill analysis, further examinations are carried out to assess the current disease status of the dog.

These include a general and orthopedic examination, X-rays, an ultrasound of the joints to be examined and a complete blood count.

All the results of these examinations are then discussed together and made available to you and your private vet with a treatment recommendation.

### *Methods of the study:*

Gait analysis on the Zebris® treadmill for dogs is a new innovative examination method that has already become established at many veterinary locations. It is considered safe and is very well accepted by the majority of patients.

### **What will be done with your dog in this study?**

The initial data for the study is collected in a detailed initial examination. As already described, this includes a general examination, an orthopedic examination, gait analysis on the Zebris® treadmill, X-rays and ultrasound of the elbows and knees as well as a blood test.

If you have already had some of the examinations carried out recently as part of our orthopedic consultation or by your private vet, these do not need to be repeated and only missing examinations will be carried out.

Following the initial appointment, *two follow-up appointments* are arranged for one week and four weeks after the initial examination in order to carry out another orthopedic examination and another gait analysis on the treadmill.

This should show a reproducibility of the results in the healthy dogs, as well as an improvement in the gait pattern after therapy of the diseased dogs. If there is no visible improvement, an adjustment of the medication can be discussed together in order to find the ideal therapy for your dog.

### **Please note**

It may be necessary for your dog to be sedated for some examinations, in particular X-rays and ultrasounds, as these examinations can be associated with excitement and stress for many dogs in an unsedated state. Sedation can ensure a quick, stress-free and painless procedure.

Sedation is carried out by our anesthetists and your dog is monitored throughout. Before sedation, the ideal sedation protocol for your dog is drawn up based on the general examination and blood count. Sedation is not a deep anesthesia, but a superficial, short-lasting sleep and is therefore not associated with the same risks as anesthesia. We will be happy to explain the risks of sedation to you in a personal consultation.

### **What do you need to do?**

Please take the time to give us all the information about your dog's state of health. This is crucial for the success of the study.

Completing the owner questionnaire is very important to us.

There are **no costs** involved in this study. All examinations and the consultation are free of charge for you! At the end of the study, you will also receive a care package for your dog.

Please bring your dog to the first appointment sober, he may eat the last time the evening before, he may drink water at any time! Your dog does not need to be fasted for subsequent appointments.

We hope that the information has been clear and detailed enough for you. If you have any further questions, please do not hesitate to contact us.

Thank you for taking part in the study!

With kind regards,

Alma Heidari  
Veterinarian Project