

Understanding Osteoarthritis and Behavior Changes in Dogs

What is osteoarthritis?

Osteoarthritis (OA) is a common joint condition in dogs that causes gradual wear and tear of the joints. Over time, this leads to chronic pain, stiffness, and difficulty moving. It is estimated that **up to 40% of dogs** may be affected by osteoarthritis at some point in their lives, although many dogs are never formally diagnosed. While OA is more common in older dogs, studies show that **about 1 in 5 dogs over one year of age** may already have signs of OA.

Which dogs are at higher risk?

Some dogs are more likely to develop osteoarthritis than others. Known risk factors include:

- **Age** (risk increases as dogs get older)
- **Genetics and body structure**
- **Breed**, particularly large and giant breeds
Breeds such as Labrador Retrievers, Golden Retrievers, German Shepherds, Rottweilers, Mastiffs, Boxers, Cane Corsos, and Bernese Mountain Dogs are at higher risk, often due to conditions like hip or elbow dysplasia or cruciate ligament injuries.
- **Body weight**, including obesity, which places extra strain on joints

How does osteoarthritis affect behavior?

Pain does not always look the same in dogs as it does in people. Instead of obvious limping, many dogs show **subtle changes in behavior**, which are often missed or attributed to “normal aging.” These may include:

- Reduced activity or play
- Reluctance to jump, climb stairs, or go for walks
- Sensitivity to touch
- Increased fearfulness or anxiety
- Irritability or aggression toward people or other dogs

Research shows that **pain is involved in many behavior concerns in dogs**, yet pain is often under-recognized and under-treated. Importantly, when pain is properly identified and managed, many dogs show improvement not only in mobility but also in behavior.

Why is measuring pain and behavior important?

Behavior changes can be an early and important sign of pain. By using validated questionnaires completed by pet owners, veterinarians can better understand how pain affects daily life and behavior. Regular pain and behavior assessments allow:

- Earlier detection of chronic pain

- Better tracking of changes over time
- More informed treatment decisions
- Improved quality of life for dogs

What is the goal of this study?

The goal of this study is to better understand how **pain severity relates to behavior** in dogs with osteoarthritis who are receiving rehabilitation therapy.

Owners will be asked to complete two questionnaires:

- **LOAD (Liverpool Osteoarthritis in Dogs)** – measures how much OA pain affects mobility and daily activities
- **C-BARQ (Canine Behavioral Assessment and Research Questionnaire)** – evaluates behavior traits such as fear, sensitivity, and aggression

These questionnaires will be completed at several time points during rehabilitation (2, 4, 8, and 12 weeks). Researchers will look at how changes in pain levels relate to changes in behavior over time.

Why does this matter?

Understanding the link between pain and behavior helps veterinarians:

- Recognize when behavior changes may be caused by pain
- Prioritize pain evaluation in dogs with behavior concerns
- Monitor how well treatments like rehabilitation therapy are working
- Improve both physical comfort and behavior-related quality of life

Ultimately, this research aims to support better diagnosis, treatment, and long-term care for dogs living with osteoarthritis.

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