

A Canine Osteoarthritis **TREATMENT PROTOCOL GUIDE** for Veterinary Practices

Developed by American Regent Animal Health, makers of Adequan® Canine (polysulfated glycosaminoglycan).



Streamlining Osteoarthritis Care

Some studies suggest that the prevalence of osteoarthritis (OA) in dogs is nearly 40%.^{1,2} Given this high prevalence, American Regent Animal Health developed this guide in partnership with experienced clinical veterinarians³ to help you:

- ✓ Optimize clinic operations, like improving efficiency and streamlining workflows
- ✓ Improve patient outcomes
- ✓ Ensure a more consistent quality of care



The goal? By diagnosing and treating OA sooner we can help improve dogs' mobility, support their well-being and increase their activity levels.

95%

of 327 veterinarians surveyed said implementing a canine OA protocol would be helpful or is important/necessary.³

3 Steps to Protocol Implementation

This guide includes practical steps to help you implement an OA protocol in your clinic. To make it straightforward, we've organized it into three parts:



Approach to OA Diagnosis

This section discusses how to implement a consistent, proactive and complete approach that leads to earlier diagnosis of canine OA.



Treatment Plan Approach

This section offers information to help you create a standardized approach for developing individualized treatment plans that address both the underlying disease as well as the presenting clinical signs.



Clinic Implementation

This section outlines how to successfully and smoothly integrate your OA protocol into your clinic workflows to help deliver optimal care for long-term success.



Approach to OA Diagnosis

How and when you diagnose OA is critical because treating it before cartilage wears away can help improve patient outcomes. Early treatment can help slow the progression of the disease, but dogs at any stage of OA can benefit when your diagnosis approach is consistent and comprehensive.

There are four key areas to consider when building your approach:

1 Keep OA top-of-mind for clients and staff

Make sure everyone knows the risk factors and the signs.

Common OA risk factors:⁴

- History of joint issues
- Genetics
- Body weight/nutrition
- Activity/activities
- Injury
- Abnormal biomechanics
- Altered physiology

Common OA signs:

- Subtle changes in behavior, body position and movement
- Less interest in going on walks or playing
- Struggling to get up or lie down
- Refusing to climb stairs

Breeds predisposed to developing OA⁵



Labrador Retriever



German Shepherd



Golden Retriever



Bulldog



Rottweiler

2 Standardize your orthopedic exam for every visit

Performing quick orthopedic screening examinations as part of every pet's wellness visit will allow for a consistent approach across your clients and clinic, helping lead to earlier detection. **See an example of a 5-minute screening using the QR code below.**

Consider CREPI when moving joints:

Crepitus / Range of motion / Effusion / Pain / Instability

Decide when to recommend radiographs. Here are some considerations:

- Consider earlier evaluation for at-risk breeds
- If abnormalities or changes are detected during the orthopedic exam
- After injury, such as a CCL tear or fracture
- Over time post-diagnosis to document progression

3 Standardize your grading approach

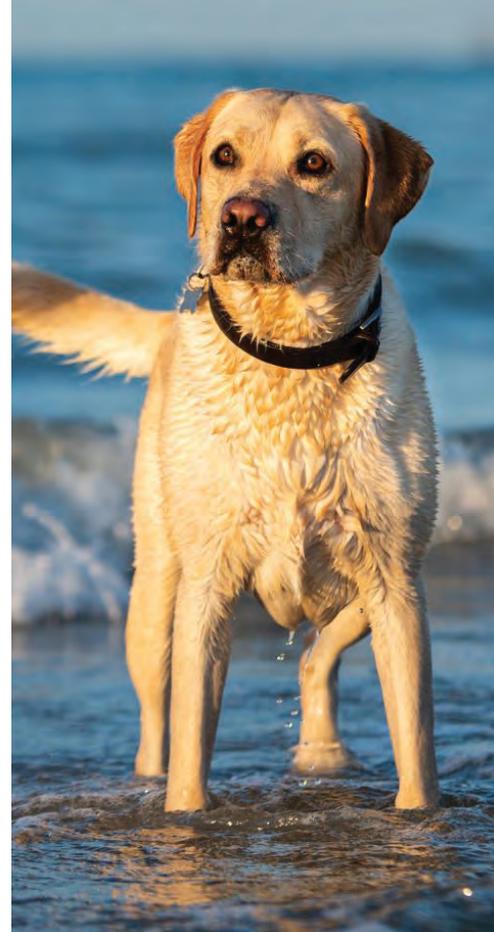
A structured approach allows for consistent treatment decisions and monitoring of disease progression. It's important to identify the severity of the disease, how debilitating it is for the dog, and how rapidly it's progressing.

There are several methods available for grading OA; choose what works best for your clinic. Some options include:

1. LOAD (Liverpool OA in Dogs)⁶
2. Canine OsteoArthritis Staging Tool (COAST)⁷

4 Get clients involved from the start

Gathering input from pet parents to help identify early signs that may not be readily apparent is crucial to early diagnosis. Getting insight on behavior changes and their dog's activity levels can lead to the creation of a tailored, more effective treatment plan and proactive care.



Example of how to conduct a 5-minute OA exam with David Dycus, DVM, MS, CCRP, DACVS-SA

OA Screening Questions *Sample questions your team could ask:*

Have you noticed any changes in your dog's activity level or reluctance to play, walk, or climb stairs?

Does your dog rise slower after resting or seem stiff after sleeping or inactivity?

Has your dog become less enthusiastic or withdrawn when engaging in daily activities?

Is your dog tiring more easily during walks or playtime?

Have you noticed any swelling or unusual stiffness in your dog's joints, especially in the mornings or after rest?

Have you seen any changes in your dog's behavior related to aggression?

Have you seen any signs of pain, such as whining, yelping, or licking/chewing on joints or legs?

Does your dog limp or favor any limbs, especially after physical activity?

OA Treatment Approach

Developing a standardized treatment approach gives you and your team more consistency in care. Once established, you can customize a plan for each patient's unique needs and circumstances to help them sustain their mobility.

A multimodal approach should focus on three key areas and be adapted through the progression of the disease. Designing an approach that always includes these areas and is started early helps ensure your practice is addressing all aspects of the disease to optimize outcomes.



Consider the following when building your standardized treatment plan:

1 Treat the underlying disease

Managing arthritis pain without treating the underlying disease is fighting a losing battle—leading to increasing cartilage loss and pain. Adequan® Canine (polysulfated glycosaminoglycan) is the only FDA-approved disease-modifying osteoarthritis drug proven to effectively slow cartilage deterioration and help control the clinical signs of OA. The FDA-approved dosing regimen can be repeated as needed as clinical signs reoccur.

2 Manage associated pain

There are many options for managing OA pain, including anti-nerve growth factor monoclonal antibodies (anti-NGF mAbs) and pharmaceuticals like non-steroidal anti-inflammatory drugs (NSAIDs), which manage OA pain and inflammation. When developing your standardized treatment approach, decide which pain management option you prefer at each stage of the disease based on your clinical judgment.

3 Lifestyle modifications and adjunct therapies

You may add recommendations such as controlled exercise or physical therapy if needed. Consider recommending a diet rich in omega-3 fatty acids for patients and identify healthy, low-calorie treats to help achieve body weight goals. You may also consider adjunct therapies, such as hydrotherapy, laser therapy, or acupuncture.

Please see Indications and Important Safety Information on the following pages and the full prescribing information on the back panel for Adequan Canine.



Examples of Standardized OA Treatment Approaches

These examples are organized by the dog's osteoarthritis stage. Once the approach is established, you and your team can further customize a plan for each patient based on your clinical insight, the patient's specific needs, and the pet parent's capacity to follow through with your recommendations.

Example #1

- 1 Treat the underlying disease
- 2 Manage associated pain
- 3 Lifestyle modifications and adjunct therapies

Early OA

Adequan Canine
8-dose series

NSAIDs
as needed

Controlled exercise

Weight control
with calorie-controlled diet

Omega-3 fatty acid supplements

Environmental modifications
adding rugs, runners, or traction flooring, especially on stairs, under beds and in eating areas

Moderate OA

Adequan Canine
8-dose series

NSAIDs

Physical rehabilitation
with controlled exercise

Weight management
with therapeutic diet

Omega-3 fatty acid supplements

Environmental shifts
bedding and food placement to avoid multiple stairs

Severe OA

Adequan Canine
8-dose series

NSAIDs

Physical rehabilitation
with exercise modification

Weight management
with therapeutic diet

Omega-3 fatty acid supplements

Environmental shifts
restrict access to a single floor; use step assists where needed

Example #2

- 1 Treat the underlying disease
- 2 Manage associated pain
- 3 Lifestyle modifications and adjunct therapies

Early OA

Adequan Canine
8-dose series

NSAIDs
as needed

Regular controlled exercise

Weight control
with calorie-controlled diet

Environmental modifications
adding rugs, runners, or traction flooring, especially on stairs, under beds and in eating areas

Moderate OA

Adequan Canine
8-dose series

NSAIDs

Physical rehabilitation
with controlled exercise

Weight management
with therapeutic diet

Environmental shifts
bedding and food placement to avoid multiple stairs

Hydrotherapy

Severe OA

Adequan Canine
8-dose series

Novel pain management drugs

Physical rehabilitation
with exercise modification

Weight management
with therapeutic diet

Environmental shifts
restrict access to a single floor; use step assists where needed

Hydrotherapy and laser therapy

Indications and Usage: Adequan® Canine polysulfated glycosaminoglycan (PSGAG) solution 100 mg/mL is recommended for intramuscular injection for the control of signs associated with non-infectious degenerative and/or traumatic arthritis of canine synovial joints. See **Important Safety Information** on page 7 and full prescribing information on the back panel.

Clinic Implementation

This is where it all comes together. Effectively implementing an OA protocol in your clinic involves comprehensive staff training plus collaboration with your clients and team to improve outcomes. Mapping out your plan for change can help ensure smooth integration.

Keys to successful implementation

1 Role selection: Determine how your team plays a part

Here are some thought-starters on how your team can play their parts.



Veterinarians

Set the plan and commit to including quick orthopedic evaluations at regular intervals for patients. Lead the team by equipping them with in-depth training and facilitate client education to help ensure the overall success of an OA protocol within your clinic.



Veterinary Technicians/Nurses

Technicians and nurses are well-positioned to recognize the early signs of OA and carry out screening processes during each appointment. They're also in a position to communicate the OA care plan to clients and administer prescribed therapies. Lastly, techs and nurses can help with client compliance by following up at future appointments.



Front Desk Staff

Front desk staff could have the opportunity to answer basic client questions and guide them toward further resources.



2 Staff training: Build a culture of early diagnosis

- Ensure all team members understand their roles and responsibilities
- Maintain open communication with your team
- Highlight the benefits and celebrate the wins to motivate your team
- Ensure your team is up to date on the latest OA disease information

3 Client education: Involve the pet parent in the conversation

- Understand their expectations, preferences and goals for their dog
- Determine their wants, needs and expectations for their dog's activities
- Identify barriers (e.g., cost, time, ability to follow the plan) and adapt the plan accordingly
- Use in-clinic tools to raise awareness
 - + Share the OA risk quiz with pet owners:
adequancanine.com/quiz/does-my-dog-have-arthritis
 - + Order an OA Protocol Pack with materials for your clinic:
adequancanine.com/veterinarians/OA-protocol
 - + Place signage and clings in your waiting area and exam rooms.
Consider the OA Screening Questions (page 3) to facilitate the discussion.

4 Map out your plan for change

Structured frameworks give you the opportunity to successfully incorporate an OA protocol into your clinic workflows, helping to ensure smooth integration and avoid confusion. Here's what that looks like:



Clear Planning: Develop a detailed, goal-oriented plan for your clinic's OA protocol, ensuring all team members understand their roles and responsibilities.



Identify a Champion: Designate a key team member to lead, monitor, and ensure the smooth implementation and ongoing success of your OA protocol. This individual acts as the point person for troubleshooting and encouraging staff adoption.



Effective Communication: Maintain open communication with staff about the protocol, addressing concerns and providing updates to avoid confusion and encourage communication with clients to proactively address changes in OA symptoms.



Staff Involvement: Engage the entire team in the development process, seeking input to encourage ownership and commitment to the protocol.



Motivation: Foster a positive environment and maintain team morale by highlighting the benefits to your patients and clinic.



Ongoing Evaluation: Continuously monitor the protocol's effectiveness, adjusting strategies based on feedback and patient outcomes to help ensure long-term success.



of 635 veterinarians surveyed consider early disease management a vital component of a canine OA protocol.³



Optimal care starts with a consistent approach

Implementing an OA protocol can help you standardize how you diagnose and treat OA, creating a culture of early intervention. Following the steps in this guide can help you enhance your team's efficiency and workflows—and improve patient outcomes.

We hope this guide, developed by American Regent Animal Health, will help support you in developing a useful and effective in-clinic OA protocol that can give your canine OA patients and your team a new level of success.

IMPORTANT SAFETY INFORMATION

Adequan® Canine should not be used in dogs who are hypersensitive to polysulfated glycosaminoglycan (PSGAG) or who have a known or suspected bleeding disorder. It should be used with caution in dogs with renal or hepatic impairment. Adverse reactions in clinical studies (transient pain at injection site, transient diarrhea, and abnormal bleeding) were mild and self-limiting. In post approval experience, death has been reported in some cases; vomiting, anorexia, depression/lethargy and diarrhea have also been reported. The safe use of PSGAG in breeding, pregnant or lactating dogs has not been evaluated. **Caution:** Federal law restricts this drug to use by or on the order of a licensed veterinarian. For additional safety information, please see full prescribing information on back cover or at adequancanine.com.

