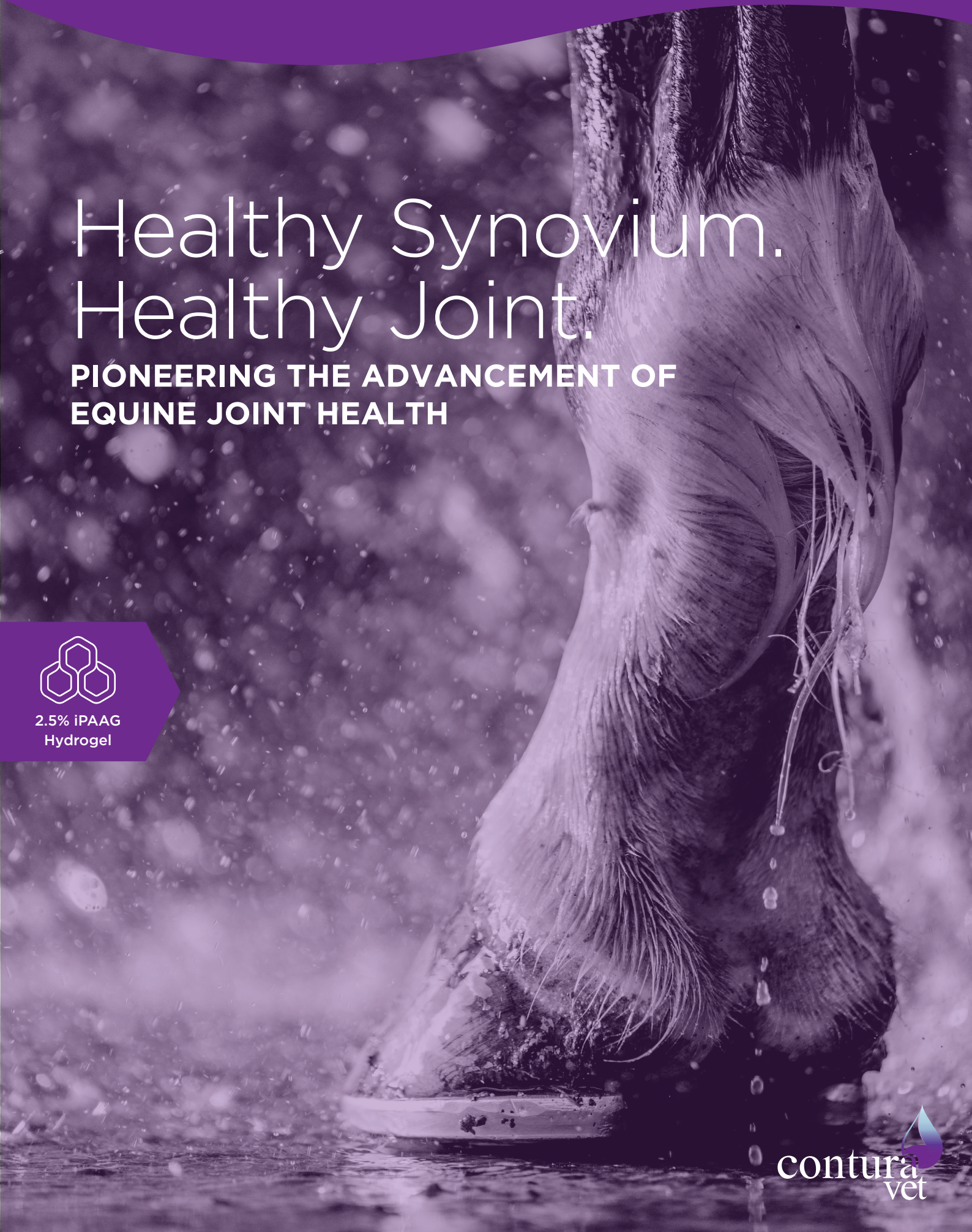
ARTHRAMID®

VETERINARY TECHNICAL SUMMARY



Healthy Synovium. Healthy Joint.

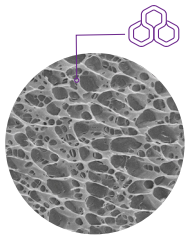
PIONEERING THE ADVANCEMENT OF EQUINE JOINT HEALTH

2.5% iPAAG Hydrogel

contura vet

What is Arthramid®

Arthramid® is a unique patented 2.5% injectable polyacrylamide hydrogel (iPAAG). It is administered through intra-articular joint injection to manage arthritic joints in horses. 2.5% iPAAG integrates into the synovium of the joint which results in improved joint function and resolution of lameness.[1,2]



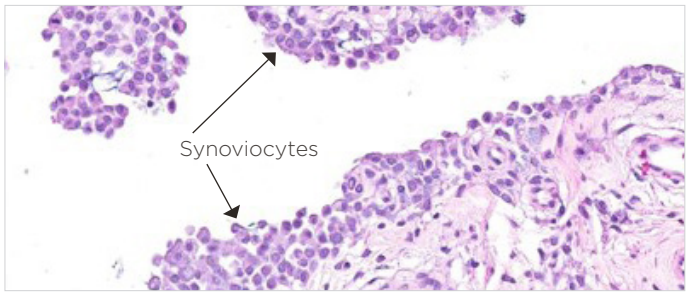
Cross-Linked
2.5% iPAAG Hydrogel

Arthramid® goes beyond conventional therapies, using a dynamic bio-scaffold technology to safely and sustainably manage osteoarthritis.

Horses gain increased load transfer capacity through the joint capsule, reduced effusion and decreased stiffness. Over 80% remain lame-free after one injection.[3]

The Synovial Membrane Matters

The cells of the synovium are responsible for the production and health of joint fluid. Joint fluid provides cushioning, reduces friction, and nourishes cartilage. If these cells become damaged, the integrity and quality of joint fluid is diminished, which can lead to inflammation within the joint space. Chronic inflammation can lead to synovitis, capsulitis, and osteoarthritis (OA).



Magnification of synovial membrane, 5-year old TB gelded horse; 42 days after 2.5% iPAAG treatment.[6]

How Arthramid® Works

2.5% iPAAG has a targeted action on the synovial membrane itself. Once injected into the joint it integrates into the synovial membrane. This process takes approximately 2 weeks.[4,5,6]

Through its unique patented technology, Arthramid® provides:

- Bio-mechanical support to the synovial membrane
- Restored elasticity and tensile strength
- Reduced stiffness and fibrosis.[3,4,5]

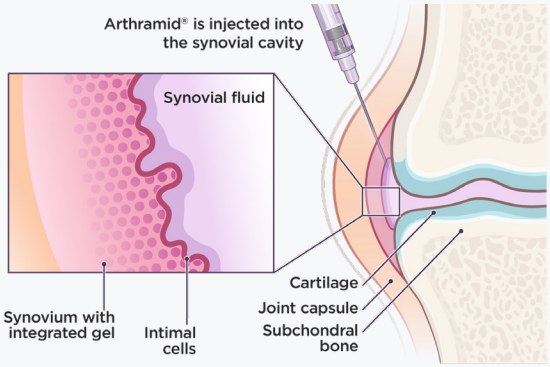
The primary action of the 2.5% iPAAG hydrogel not only alleviates discomfort and restores joint function but in turn it modulates the inflammatory response, leading to improvements in joint fluid quality.

Treatment therefore interrupts the vicious cycle of OA and restores the joint to homeostasis, giving long term benefits to the patient and their owner.

KEY POINTS

- Unique and patented 2.5% iPAAG technology for the treatment of joint lameness (including both early and late stages of OA)
- Proven efficacy in multiple clinical trials across multiple equine disciplines
- Acts as a bio-scaffold, resulting in a decrease in pain and lameness
- Long lasting results and sustained soundness (lame-free)
- Can safely be used to treat multiple joints concurrently in the same animal
- No competition with-hold time (WHT)
- Over 20+ years of research in horses and humans, Contura continues its commitment to ongoing research and development

Joint After Administration of Arthramid®



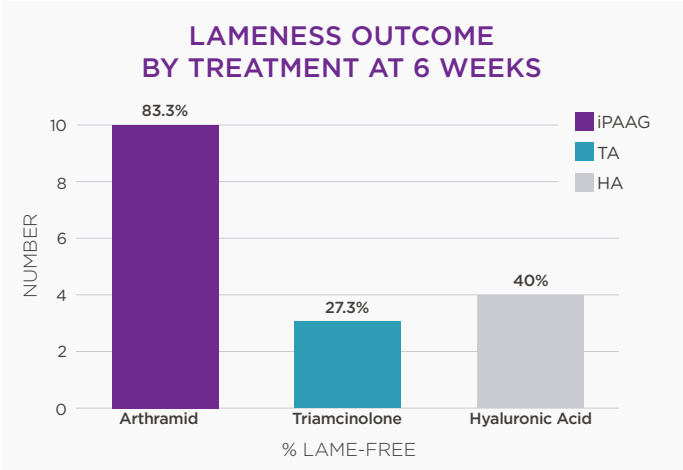
Acting as a scaffold, 2.5% iPAAG integrates into the synovial membrane, restoring its function through improved mechanical properties, which in turn reduces inflammation and promotes joint health

'Synovitis is the single most important factor that contributes to the pain of OA and lameness.'

Case Selection

Arthramid® can be used in any synovial joint that is displaying clinical signs of osteoarthritis such as joint pain, synovitis, effusion, reaction to flexion, lameness that responds to intra-articular analgesia, and those with abnormal joint findings detected using diagnostic imaging modalities such as radiology, ultrasonography, scintigraphy, CT, or MRI. It is recommended for use as early as possible in the OA disease process (e.g. synovitis and capsular stiffness), but is also highly effective in severe or chronic cases.

It is important to review the animal's medical history, including any sign of ongoing infection, concomitant medication, surgery or potential fracture prior to injection to prevent possible infections or use of the product for conditions other than for which it is indicated.



Comparison of 2.5% iPAAG versus Triamcinolone (TA) and Hyaluronic Acid (HA) in a double-blinded positive control study JEVS 107 (2021) in horses showing 83.3% successful resolution of lameness at 6 weeks in Arthramid® treated group.[1]

Post-Injection Care

As with any intra-articular therapy it is recommended to rest the horse for 48 hours immediately after treatment. Ideally plan a reduced impact workload for up to 2 weeks to allow full integration of the 2.5% iPAAG to occur. A follow up examination is advised at 4 to 6 weeks to assess the response to treatment and a top-up dose can be administered at that time if clinically indicated.

Horses typically show a gradual reduction in lameness in the first week after treatment and this should continue to improve over the ensuing weeks.

Repeat doses of Arthramid® can be safely given at 6 to 12 month intervals, if clinically indicated.

Information to the Owner

The owner of the animal should be informed about indications, expected results, and potential complications associated with intra-articular injections. The owner should be advised that in case of complications the veterinarian who performed the injections should be contacted immediately for necessary treatment.

Dosage Recommendations

Arthramid® is for intra-articular injection only. The dose may vary depending on the severity of disease, the size of the joint and duration of clinical signs. The following recommendations have been made based on observed clinical responses to treatment.[3]

Distal Interphalangeal: 1-2 mL

Proximal Interphalangeal: 1 mL

Metacarpo / Tarso-phalangeal: 2 mL

Carpus: 2-3 mL

Tarsometatarsal / Distal Intertarsal: 1 mL

Tarsocrural: 2-3 mL

Shoulder: 2-3 mL

Stifles: 1-2 mL per compartment

Administration

Arthramid® comes in prefilled sterile 1 mL syringes, sealed via Luer lock fitting. Arthramid® should be administered via a sterile 18-23G needle using aseptic injection technique protocols.

Storage

Arthramid® must be stored protected from direct sunlight. Do not freeze. Do not store unsealed syringes for later use. Arthramid® has a 3-year shelf life from date of manufacture; always check package expiration date before use.

Caution

Federal law restricts this prescription device to sale by or on the order of a licensed veterinarian and it must be used under the supervision of a licensed veterinarian for the application of intra-articular administration.

ARTHRAMID®

For further information, including our White Paper, scan the QR code above or visit **www.arthramid.com**

References

1. de Clifford L.T., Lowe J.N., McKellar C,D., McGowan C., David F. A Double-Blinded Positive Control Study Comparing the Relative Efficacy of 2.5% Polyacrylamide Hydrogel (PAAG) Against Triamcinolone Acetonide (TA) and Sodium Hyaluronate (HA) in the Management of Middle Carpal Joint Lameness in Racing Thoroughbreds. Journal Equine Vet Science, Vol 107, 2021, 103780.
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3. Tnibar, A. Intra-articular 2.5% polyacrylamide hydrogel, a new concept in the medication of equine osteoarthritis: A review. Journal Equine Veterinary Science, Vol 119, 2022, 104143
4. Narins, R.S. and Schmidt, R., Polyacrylamide hydrogel differences: Getting rid of the confusion. J Drugs Dermatol. 2011; 10(12): 1370-1375.
5. Christensen, L., Camitz, L., Illigen, K.E., Hansen, M., Sarvaa, R., Conaghan, P.G., Synovial incorporation of polyacrylamide hydrogel after injection into normal and osteoarthritic animal joints. Osteoarthritis Cartilage. 2016; 24: 1999-2002.
6. Lowe, J., de Clifford L., Julian, A., and Koene, M. Histologic and cytologic changes in normal equine joints after injection with 2.5% injectable polyacrylamide hydrogel reveal low-level macrophage-driven foreign body response. J Am Vet Med Assoc. 2024;262(5):649-657. doi: 10.2460/javma.23.10.0553.

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