ARTHRAMIDVET®

2.5% iPAAG

TECHNICAL SUMMARY

Stop Arthritis Where It Starts

An innovative and long-lasting joint therapy for all stages of Equine Osteoarthritis

contura vet

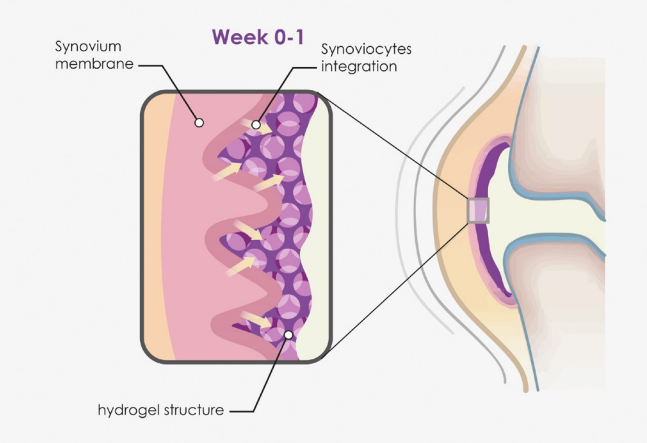
EDUCATIONAL PARTNER AAEP

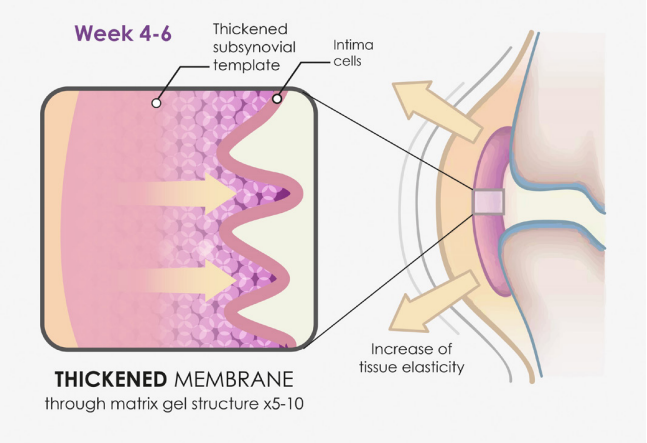
ArthramidVet®

ArthramidVet® is a unique medical device and patented 2.5% injectable polyacrylamide hydrogel (iPAAG), offering an innovative, safe treatment option to manage arthritic joints in horses. ArthramidVet is indicated for the management of non-infectious causes of joint disease in horses, including both early and late stages of equine osteoarthritis. ArthramidVet is a non-resorbable, injectable, transparent, hydrophilic gel for intra-articular administration in horses. After injection, ArthramidVet is integrated within the synovial membrane of the joint, which results in improved joint function and resolution of lameness.[1,2]

Sterile 1mL pre-filled syringe with a Luer-lock fitting

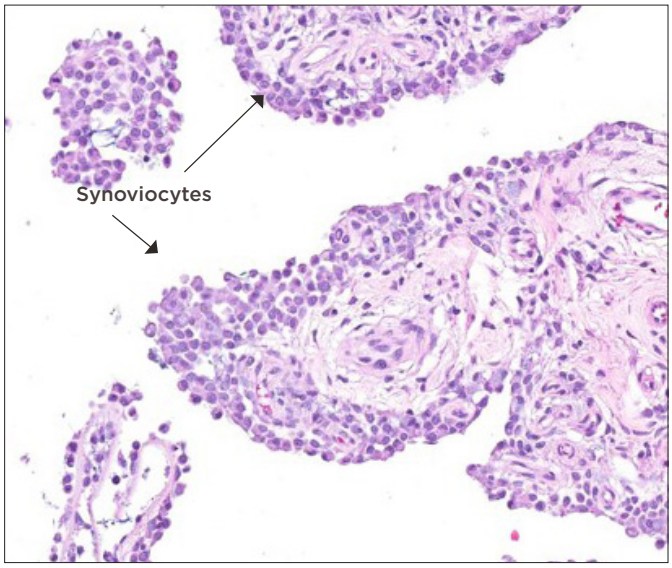
ArthramidVet is produced by a unique process called In-line Cross-Linking Technology (ILX Technology), which provides the 2.5% iPAAG with exceptional safety and molecular stability. The iPAAG consists of 2.5% cross-linked polyacrylamide and 97.5% water, which give it its distinctive characteristics.[3] It acts as a tissue scaffold that is inert, biocompatible, neuroinnocuous and non-pharmaceutical.[4]





Mode of Action

Upon injection into the joint, ArthramidVet adheres to the synovial lining and becomes integrated into the subintima layer of the synovial membrane, where it acts by its physical presence as a porous spacer.



Magnification of synoviocyte hyperplasia and hypertrophy (5-year old TB gelded horse; 42 days; RFC Prox. 20x).

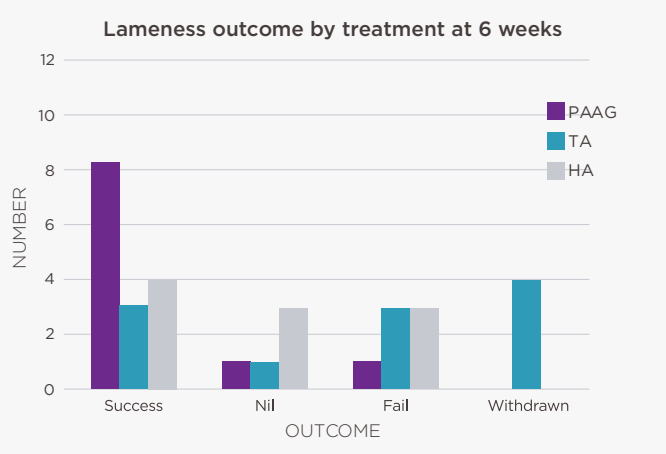
2 to 4 weeks post-injection, ArthramidVet becomes fully integrated into the synovium and joint capsule by a combination of cell migration and vessel ingrowth. Blood vessels and collagen deposits are integrated in the gel, which is covered by a novel and hypercellular synovial cell lining.[4]

> "increases the elasticity and tensile strength of the capsule improving its capacity to transfer load"

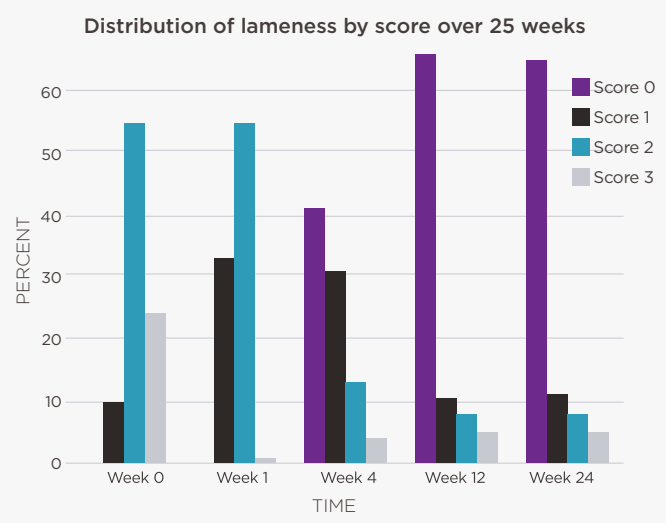
As a result, ArthramidVet has a long-lasting augmentation effect on the synovium and joint capsule. It increases the elasticity and tensile strength of the capsule, improving its capacity to transfer load and resulting in a reduction in the mechanoreceptor and nociceptor activation in the capsule itself.[7] The formation of a new hypercellular synovial cell lining further restores synovial health, and when combined, these properties reduce the pain and inflammation of synovitis and re-establish joint function and homeostasis.[1,2,6]

Clinical Efficacy

Multiple clinical studies have proven efficacy of > 82.5% in horses[1,2,9] , with long-lasting and superior results compared to conventional treatments.



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 ArthramidVet treated group.



Distribution of lameness scores at baseline (Week 0) and at 1, 4, 12, 24 weeks following treatment with ArthramidVet, showing 65.3% of horses still lame-free at 24 weeks, JEVS 77 (2019) 57-62.

"long-lasting and superior results compared to conventional treatments"

Case Selection & Management

ArthramidVet is indicated for the treatment of osteoarthritis due to non-infectious inflammation of joints.

With appropriate diagnosis, ArthramidVet can be used in any joint that is displaying clinical signs of dysfunction such as 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 joint disease process, (e.g., synovitis and capsular stiffness), but is also highly effective in chronic or severe cases of equine OA.

"Depending on the disease state of the horse's joint(s), between 67%-82.5% of those treated with ArthramidVet will become lame free"

Following treatment, animals should be rested for 48 hours. Training modification to accommodate the degree of lameness and the disease process being managed should also be considered; the use of alternative training methods such as swimming, water treadmills and dry treadmills are encouraged during the tissue integration phase to give better longer-term results.

Horses will typically show a gradual reduction in lameness during the first week after treatment and a concurrent reduction in reaction to passive flexion. Over the next several weeks, horses will continue to improve and, depending on the disease state of the joint(s), between 67% and 82.5% will become lame free.[1,8,9] Re-examination is recommended at 4-6 weeks post-injection and it may be necessary to consider administering a second dose in those that have partially responded (around 10-15% of cases, depending on dosage) or to reassess the accuracy of the diagnosis.

It is important for both trainers and owners to understand there is a lag time between treatment and effect. This is a contrast to most conventional joint therapies. For this reason and the long-lasting benefits seen, it is also reasonable to consider treating the animal during periods of reduced exercise demands or earlier in the animal's training program than normally considered.

Dose & Administration

ArthramidVet is indicated for the management of non-infectious causes of joint disease in horses, including both early and late stages of equine osteoarthritis. ArthramidVet® is for intra-articular injection only. Standard aseptic technique is essential to prevent contamination of the injection site. The dose injected into each joint can be varied depending on the severity of the disease and the size of the joint, and duration of clinical signs. The following dosage recommendations have been made for horses based on observed clinical responses to treatment.

Distal Interphalangeal:	1-2mL
Proximal Interphalangeal:	1 mL
Metacarpo/tarso-phalangeal:	1-3 mL
Carpus:	1-3mL
Tarsometatarsal/Distal Intertarsal:	1 mL
Tarsocrural:	1-2 mL
Shoulder:	2-3 mL
Stifles:	1-2 mL/compartment

Repeated doses of ArthramidVet can be given as soon as 4-6 weeks following the initial injection and at 4-6 week intervals, if clinically indicated.

Testimonials

"I was one of the first vets to use ArthramidVet worldwide and the results are quite astonishing. It has truly been a game changer for my patients." - Dr. Marc Koene

"ArthramidVet has changed the way my practice manages arthritis in the performance horse. We are now able to offer a treatment with long lasting results and greater success in treating the equine joint." - Dr. T. Corey Payne

"ArthramidVet is now a staple in my arsenal of intra-articular therapies." - Dr. Cindi LaCroix

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

Storage

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

References

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9. Tnibar A, Schougaard H, Camitz L, et al. (2015). An international multi-centre prospective study on the efficacy of an intraarticular polyacrylamide hydrogel in horses with osteoarthritis: a 24 months follow-up. Acta Veterinaria Scandinavica 57(1): 20. https://doi.org/10.1186/s13028-015-0110-6.

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CVUS-EQ-2307102