



A SOUND CHOICE FOR EQUINE LAMENESS

ARTI-CELL® FORTE, the first licensed treatment to deliver on the promise of regenerative therapy for equine joint disease.¹

A revolution in the treatment of equine Osteoarthritis,*
ARTI-CELL® FORTE treats the disease and the symptoms,
giving owners more active time with their horse.¹



*For the reduction of mild to moderate recurrent lameness associated with non-septic joint inflammation in horses.

WHAT CAN **ARTI-CELL**® FORTE DO FOR YOUR PATIENTS?



Approximately **25%** of horses are affected with degenerative joint disease, one of the main causes of early retirement from a performance career.²

Corticosteroids are widely used to treat the symptoms of inflammation and pain, but have to be administered repeatedly for continued effect, and do not treat tissue degradation.² Orthobiologics are therefore gaining in popularity as veterinary surgeons seek treatments that resolve lameness effectively but also offer longevity and improve joint health.

ARTI-CELL® FORTE is the first stem cell treatment to be licensed for animal health and has therefore passed rigorous safety, efficacy and quality standards that you and your clients can trust.

Studies show that **ARTI-CELL**® FORTE treats the disease and not just the symptoms by targeting cartilage repair and restoring joint health.³

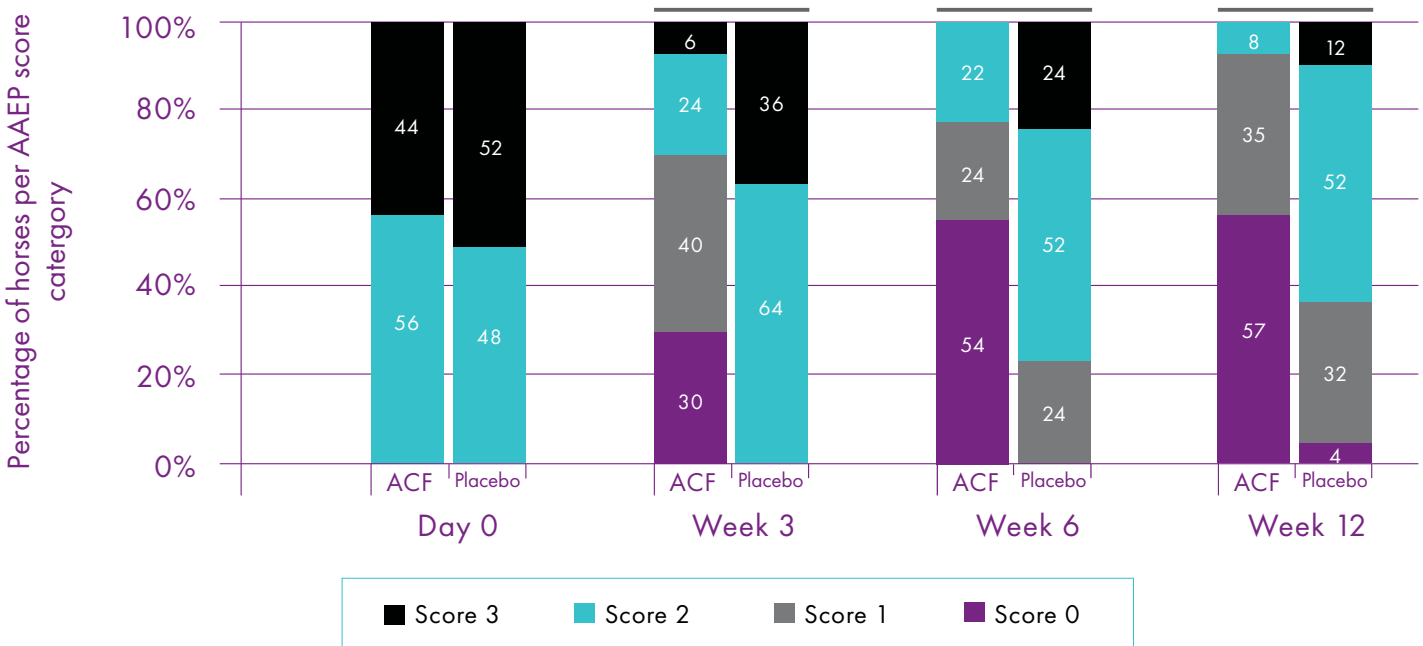
WHAT CAN ARTI-CELL® FORTE DO FOR YOUR PATIENTS?



In a study of **75** adult horses with degenerative joint disease, a single treatment of **ARTI-CELL® FORTE**:

Treated lameness and joint inflammation rapidly, showing **78%** efficacy in just 6 weeks.² The onset of a clinically relevant improvement with treatment was shown as early as week 3.²

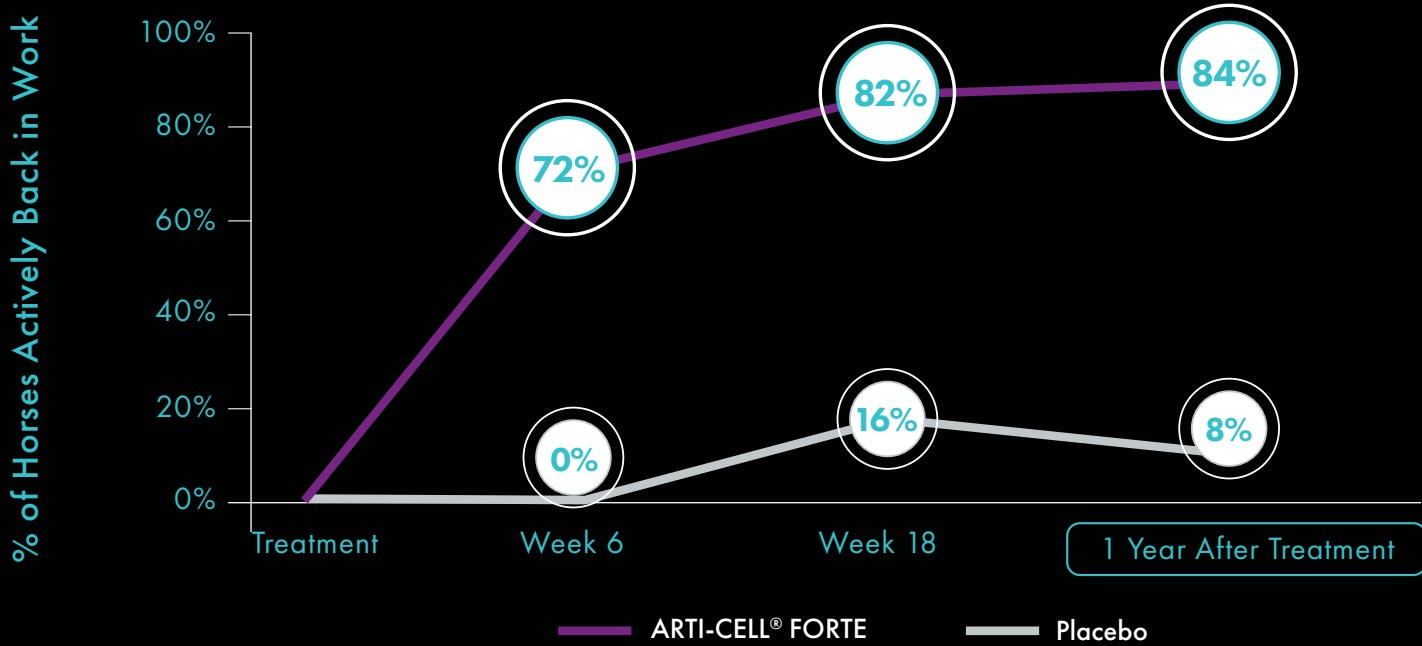
Clinical trial results demonstrate significant return to soundness²



*Statistically significant

Showed sustained clinical results. At 1 year after treatment, **84%** of patients treated with ARTI-CELL® FORTE were training or working at their previous level.²

At one year post-treatment, 84% of horses remained actively back in work* vs a placebo control



*'Actively back in work' is defined as return to previous level or working at training level. Adapted from Broeckx SY, Seys B, Suls M, et al. 2019.²

With ARTI-CELL® FORTE, horses and owners can benefit from more active time together to enjoy their partnership

HOW DOES ARTI-CELL® FORTE TREAT OSTEOARTHRITIS?



ARTI-CELL® FORTE is the first licensed intra-articular treatment to target cartilage repair and restore joint health.

ARTI-CELL® FORTE allows clinicians to take a multi-modal approach, with one biologic treatment:

Anti-inflammatory mediators reduce pain and swelling throughout the joint⁵ and synovial fluid quality is improved³

A paracrine effect at the injury site promotes the healing of cartilage by amplification of extracellular matrix (ECM) production by native cells³

CARTILAGE REPAIR	ANTI-INFLAMMATORY	SYNOVIAL FLUID
<ul style="list-style-type: none">• amplification of ECM production:³• GAGs• COMP• Collagen II	<ul style="list-style-type: none">• Reduced joint effusion, reduced synovial membrane hyperaemia³• Mesenchymal Stem Cells (MSC) have been shown to mediate inflammation via IL-6, IL-10, TSG-6, IRAP, PGE2⁵	<ul style="list-style-type: none">• Increased viscosity and quality score³



WHAT MAKES **ARTI-CELL**® FORTE TREATMENT SUCCESSFUL?



ARTI-CELL® FORTE contains chondrogenic induced mesenchymal stem cells (ciMSCs) that target cartilage repair to restore joint health and deliver better outcomes compared to uninduced MSCs.⁶

In vitro observations have demonstrated that chondrogenic induced MSCs produce cartilage-specific substances, which could aid cartilage repair.²

1. Chondrogenic Induction of MSCs increases efficacy⁶

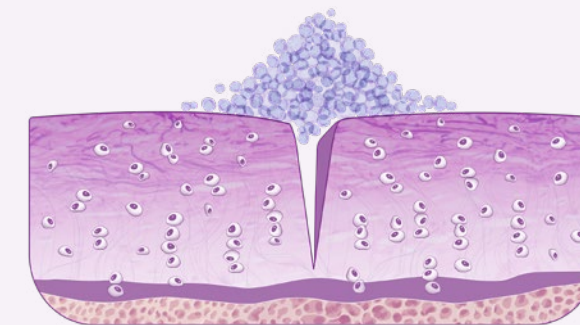
- Better in-vivo and in-vitro outcomes compared to non-induced MSCs
- Adhere to larger area of lesion for longer than uninduced cells

2. Allogenic source of MSCs ensures high quality is standard⁷

The ability of MSCs to harness the body's own regenerative capacities is variable between individuals and declines in horses who are already injured.⁷ This is why the ciMSCs used in ARTI-CELL® FORTE come from a line that has been specifically selected for quality; which means that you can be confident that every dose of ARTI-CELL® FORTE can give consistent results.

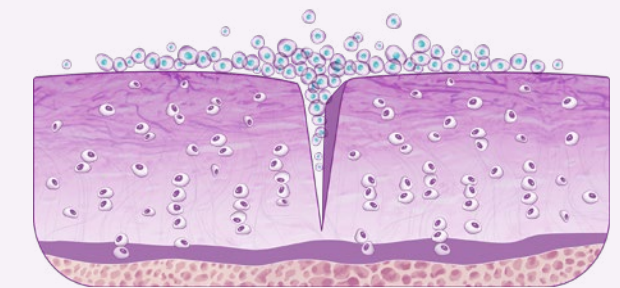
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UNINDUCED (NATIVE) STEM CELLS



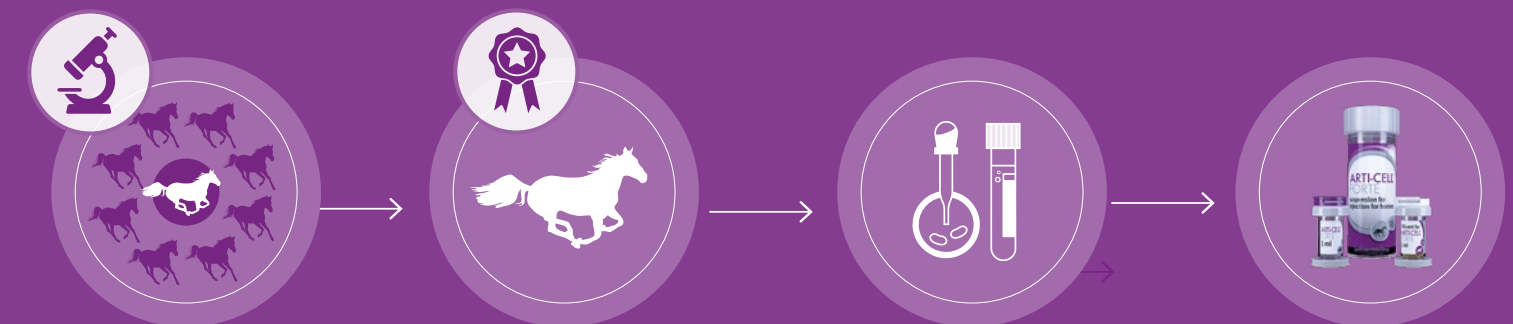
Cells clump together on the cartilage and detach earlier

ARTI-CELL® FORTE



Homogenous layer of stem cells on the cartilage

2



MSCs of healthy horses screened for quality markers

Highest quality donors identified

Small volumes of peripheral blood used to culture cell lines

Standardisation in every dose

UNIQUE STORAGE



One pack of **ARTI-CELL**® FORTE contains one vial of chondrogenic induced mesenchymal stem cells and a second vial containing equine allogeneic plasma diluent, which must be thawed and mixed.

ARTI-CELL® FORTE is delivered direct to a clinic on dry ice at -80°C and must be thawed immediately before use.

For more information on ordering and delivery schedules and for getting the best results when administering, please contact your local Boehringer Ingelheim representative on **01344 746960**, or visit the website at **www.articellforte.co.uk**



INVEST IN THEIR FUTURE



By treating the disease – not just the symptoms – **ARTI-CELL®** FORTE gives owners more active time with their horse and offers the possibility of a brighter future

🌐 To view real case examples and see how **ARTI-CELL®** FORTE could benefit your patients, visit: www.articellforte.co.uk

📞 To start your **ARTI-CELL®** FORTE journey, contact your Boehringer Ingelheim representative: 01344 746960

References: 1. Summary of Product Characteristics (SPC): Arti-Cell Forte® Chondrogenic induced equine allogeneic peripheral blood derived mesenchymal stem cells. SPC available on the Veterinary Medicines Directorate website <http://www.vmd.defra.gov.uk/ProductInformationDatabase>. 2. Broeckx SY, Says B, Suls M, Vandenbergh A, Mariën T, Adriaens E, Declercq J, Van Hecke L, Braun G, Hellmann K, Spaas JH. 2019. Equine Allogeneic Chondrogenic Induced Mesenchymal Stem Cells Are an Effective Treatment for Degenerative Joint Disease in Horses. Stem Cells Dev. 28 (6) 410-422. 3. Broeckx SY, Martens AM, Bertone AL, Van Brantegem L, Duchateau L, Van Hecke L, Dumoulin M, Oosterlinck M, Chiers K, Hussein H, Pille F, Spaas JH. 2019 The use of equine chondrogenic-induced mesenchymal stem cells as a treatment for osteoarthritis: a randomized, doubleblinded, placebo-controlled proof-of-concept study. Equine Veterinary Journal (2019). 4. A Stifle OCD case study-Boehringer-Ingelheim-unpublished data. 5. Ruiz, M., Maumus, M., Jorgensen, C. and Noël, D., 2019. Mesenchymal Stem Cell-Based Therapy of Osteoarthritis: Current Clinical Developments and Future Therapeutic Strategies. In A Roadmap to Non-Hematopoietic Stem Cell-based Therapeutics (pp. 87-109). Academic Press. 6. Spaas, J.H., Broeckx, S.Y., Chiers, K., Ferguson, S.J., Casarosa, M., Van Bruggen, N., Forsyth, R., Duchateau, L., Franco-Obregón, A., Wuertz-Kozak, K., 2015. Chondrogenic priming at reduced cell density enhances cartilage adhesion of equine allogeneic MSCs a loading sensitive phenomenon in an organ culture study with 180 explants. Cell. Physiol. Biochem. 37, 651–665. 7. Colbath AC, Dow SW, McIlwraith CW, Goodrich LR. 2020. Mesenchymal stem cells for treatment of musculoskeletal disease in horses: Relative merits of allogeneic versus autologous stem cells. Equine Veterinary Journal (2020).

Arti-Cell® Forte suspension for injection for horses contains chondrogenic induced equine allogeneic peripheral blood derived mesenchymal stemcells. UK: POM-VIE: POM. Further information available in the SPC or from Boehringer Ingelheim Animal Health UK Ltd., RG12 8YS, UK. UK Tel: 01344746960 (sales) or 01344746957 (technical), IE Tel: 012913985 (all queries). Email: vetenquiries@boehringer-ingelheim.com. Arti-Cell® Forte is a registered trademark of Boehringer Ingelheim Vetmedica GmbH, used under licence. ©2021 Boehringer Ingelheim Animal Health UK Ltd. All rights reserved. Date of preparation: Oct 2021. UI-EQU-0118-2021. Use Medicines Responsibly.