

Steroid Injections for Joint Pain in Horses

What steroids are:

- Steroids are man-made drugs, similar to hormones that our body makes in the adrenal glands
- They are not the same as hormone related steroid compounds that some athletes use

Indication for use:

- Joint pain and inflammation, osteoarthritis

Action:

- They reduce inflammation, pain, and suppress the immune system

Effectiveness:

- Provide moderate, short-term pain relief, reduced lameness
- Improved function - usually lasting weeks to approximately 3 months
- Greatest benefit in first few weeks; effects diminish over time
- Can be used to assist rehabilitation, physiotherapy, strength and conditioning exercise

Safety and Risks:

- Generally safe when used appropriately.
- Infection risk: in first 4 weeks following injection
- Laminitis risk: several days to weeks: increased blood glucose and insulin, especially in horses with pre-existing metabolic syndrome, endocrinopathies
- Repeated/high-dose injections: higher risk of cartilage and joint damage

Conclusion:

- Reduce inflammation and provide short-term relief from joint pain
- Pain relief assists engagement with physiotherapy and exercise – giving a window of opportunity for rehabilitation
- Effects are temporary; repeated use increases risks
- Careful monitoring and patient selection are essential, particularly with repeat injections

References - Steroid Injections for Joint Pain in Horses

Álvarez, V., Boone, L., Braim, A., Taintor, J., Caldwell, F., Wright, J., & Wooldridge, A., 2020. A Survey of Clinical Usage of Non-steroidal Intra-Articular Therapeutics by Equine Practitioners. *Frontiers in Veterinary Science*, 7. <https://doi.org/10.3389/fvets.2020.579967>.

Bellamy, N., Campbell, J., Robinson, V., Gee, T., Bourne, R., & Wells, G., 2006. Intraarticular corticosteroid for treatment of osteoarthritis of the knee.. *The Cochrane database of systematic reviews*, 2, pp. CD005328 . <https://doi.org/10.1002/14651858.CD005328.PUB2>.

Boorman, S., McMaster, M., Groover, E., & Caldwell, F., 2022. Review of glucocorticoid therapy in horses: Intra-articular corticosteroids. *Equine Veterinary Education*. <https://doi.org/10.1111/eve.13719>.

Carassiti, M., Pascarella, G., Strumia, A., Russo, F., Papalia, G., Cataldo, R., Gargano, F., Costa, F., Pierri, M., De Tommasi, F., Massaroni, C., Schena, E., & Agrò, F., 2021. Epidural Steroid Injections for Low Back Pain: A Narrative Review. *International Journal of Environmental Research and Public Health*, 19. <https://doi.org/10.3390/ijerph19010231>.

Chen, A., Solberg, J., Smith, C., Chi, M., Lowder, R., Christolias, G., & Singh, J., 2021. Intraarticular Platelet Rich Plasma vs Corticosteroid Injections for Sacroiliac Joint Pain-a Double Blinded, Randomized Clinical Trial.. *Pain medicine*. <https://doi.org/10.1093/pm/pnab332>.

De Grauw, J., Visser-Meijer, M., Lashley, F., Meeus, P., & Van Weeren, P., 2016. Intra-articular treatment with triamcinolone compared with triamcinolone with hyaluronate: A randomised open-label multicentre clinical trial in 80 lame horses.. *Equine veterinary journal*, 48 2, pp. 152-8 . <https://doi.org/10.1111/evj.12383>.

Donovan, R., Edwards, T., Judge, A., Blom, A., Kunutsor, S., & Whitehouse, M., 2022. Effects of recurrent intra-articular corticosteroid injections for osteoarthritis at three months and beyond: a systematic review and meta-analysis in comparison to other injectables.. *Osteoarthritis and cartilage*. <https://doi.org/10.1016/j.joca.2022.07.011>.

Li, D., Hang, R., Meng, L., Zhao, Z., Zhao, C., & Luo, F., 2024. Co-treatment with Oral Duloxetine and Intraarticular Injection of Corticosteroid plus Hyaluronic Acid Reduces Pain in the Treatment of Knee Osteoarthritis.. *Pain physician*, 27 1, pp. E45-E53 . <https://doi.org/10.36076/ppj.2024.27.e45>.

Martin, S., Conaway, W., & Lei, P., 2018. Use of Intra-Articular Corticosteroids in Orthopaedics.. *The Journal of bone and joint surgery. American volume*, 100 10, pp. 885-891 . <https://doi.org/10.2106/JBJS.17.00289>.

Matzkin, E., Curry, E., Kong, Q., Rogers, M., Henry, M., & Smith, E., 2017. Efficacy and Treatment Response of Intra-articular Corticosteroid Injections in Patients With Symptomatic Knee Osteoarthritis. *Journal of the American Academy of Orthopaedic Surgeons*, 25, pp. 703-714. <https://doi.org/10.5435/JAAOS-D-16-00541>.

McIlwraith, C., 2010. The use of intra-articular corticosteroids in the horse: what is known on a scientific basis?. *Equine veterinary journal*, 42 6, pp. 563-71 . <https://doi.org/10.1111/j.2042-3306.2010.00095.x>.

References continued: - Steroid Injections for Joint Pain in Horses

McIlwraith, C., & Lattermann, C., 2018. Intra-articular Corticosteroids for Knee Pain—What Have We Learned from the Equine Athlete and Current Best Practice. *The Journal of Knee Surgery*, 32, pp. 009 - 025. <https://doi.org/10.1055/s-0038-1676449>.

Najm, A., Alunno, A., Gwinnutt, J., Weill, C., & Berenbaum, F., 2021. Efficacy of intra-articular corticosteroid injections in knee osteoarthritis: a systematic review and meta-analysis of randomized controlled trials.. *Joint bone spine*. <https://doi.org/10.1016/j.jbspin.2021.105198>.

Smith, C., Patel, R., Vannabouathong, C., Sales, B., Rabinovich, A., McCormack, R., Belzile, E., & Bhandari, M., 2018. Combined intra-articular injection of corticosteroid and hyaluronic acid reduces pain compared to hyaluronic acid alone in the treatment of knee osteoarthritis. *Knee Surgery, Sports Traumatology, Arthroscopy*, 27, pp. 1974-1983. <https://doi.org/10.1007/s00167-018-5071-7>.

Tokawa, P., Baccarin, R., & Zanotto, G., 2025. Intra-articular corticosteroids: Systematic review of effects on osteoarthritis and joint health. *Equine Veterinary Education*. <https://doi.org/10.1111/eve.14097>.

Tokawa, P., Baccarin, R., & Zanotto, G., 2025. Intra-articular corticosteroids: Systematic review of effects of multiple injections and different doses. *Equine Veterinary Education*. <https://doi.org/10.1111/eve.14098>.

Vu, P., Malik, A., Ryder, A., Enaohwo, O., Blazek, G., & Chen, J., 2024. The Role of Corticosteroid Injections in the Treatment of Sacroiliitis: A Narrative Review.. *Musculoskeletal care*, 22 3, pp. e1932 . <https://doi.org/10.1002/msc.1932>.

Xie, Y., Zhao, K., Ye, G., Yao, X., Yu, M., & Hongwei, O., 2022. EFFECTIVENESS OF INTRA-ARTICULAR INJECTIONS OF SODIUM HYALURONATE, CORTICOSTEROIDS, PLATELET-RICH PLASMA ON TEMPOROMANDIBULAR JOINT OSTEOARTHRITIS: A SYSTEMATIC REVIEW AND NETWORK META-ANALYSIS OF RANDOMIZED CONTROLLED TRIALS.. *The journal of evidence-based dental practice*, 22 3, pp. 101720 . <https://doi.org/10.1016/j.jebdp.2022.101720>.