

## A randomized, double-blind, placebo-controlled clinical trial in horses to study the effects of the oral joint supplement SmartFlex® IV Ultimate Pellets

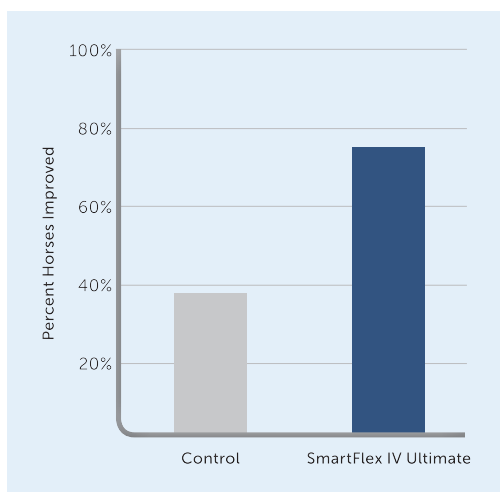
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### Introduction

Arthritis is one of the most common conditions that affect performance and pleasure horses. In fact, it is believed to be responsible for up to 60% of all equine unsoundness. The joints most often affected by arthritis in the horse include the knee (or carpus), ankle (or fetlock), coffin, hock, and pastern. Arthritis is defined as progressive and permanent deterioration of articular cartilage and can cause stiffness and discomfort. While there is no proven method of preventing arthritis altogether, previous research and anecdotal reports suggest that ingredients like glucosamine, chondroitin sulfate, hyaluronic acid, and MSM found in an oral joint supplement such as SmartFlex IV Ultimate Pellets (SFIV) may support joint health.

### Materials and Methods

Sixteen client-owned horses and ponies of various ages, breeds, and disciplines were evaluated in this study. Horses were included in the study only if they had rear limb lameness and positive rear limb flexions. At each lameness evaluation (Day 0, Day 30, and Day 60) all horses underwent a standardized handwalking protocol, then a physical examination which included body weight and body condition score assessment. This was followed by a lameness evaluation that included lameness grading using the AAEP Lameness Grading Scale, use of the Lameness Locator® inertial sensor system by Equinosis®, full limb flexion testing of both rear legs, and hoof tester application to all four hooves. All evaluations were conducted by the same individual. Horses were randomly assigned to either the treatment (SFIV) or the control (placebo) group in matched cohorts based on the severity of the initial lameness. Horse owners and the evaluator were blinded to the assignment of study horses to the treatment or control groups. Horse owners were given 60 days of either the maintenance serving (80g) of SFIV or the same amount of a placebo pellet in SmartPaks and were instructed to administer daily.



### Results

6 out of 8 horses (75%) receiving SFIV demonstrated improvement. Amongst the horses receiving the placebo there was a mixed response with 1 out of 8 horses becoming more unsound, 4 out of 8 horses remaining unchanged, and 3 out of 8 horses (37.5%) demonstrating improvement.

### Conclusion

Overall, twice the number of horses had improvements when receiving the oral joint supplement SmartFlex IV Ultimate Pellets compared to horses receiving the placebo.