



The effect of a novel dynamic feeding system on horse behavior and movement

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Introduction: Horses kept in small enclosures move very little in comparison to horses living in an unconfined environment. There are health consequences of this sedentary lifestyle. The use of GPS allows the accurate quantification of distance travelled by horses. Methods: Ten horses (5 pairs) were alternated between a control paddock and a research paddock, both measuring 20 x 30m. Grass hay was fed from a novel feeding system in the research paddock, while the same hay was fed from a standard hay feeder in the control paddock. In the research paddock access to hay was alternated at 5 min intervals between either side of a fence, forcing horses to walk around a walkway to access feed continuously. The interactive behavior of horses was observed and movement was monitored using GPS. Results: All 10 horses learnt to use the feeding system quickly. Dominance behavior in some horses was modified by competition for feed. On average, horses in the research paddock travelled 5.4 times more distance than in the control paddock. Conclusion: The dynamic feeding system was successful in encouraging horses to exercise in a small paddock. However, due to the exaggeration of dominance behavior in some horses, horses should be well matched if housed in pairs. This system may have application in the management of equine obesity and insulin resistance in horses.

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