

An investigation into the effects of McTimoney chiropractic treatment on the stride parameters of the horse during trot

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Summary:

Anecdotal evidence reports that McTimoney Chiropractic improves equine performance. Objective data on the impact of McTimoney treatment on locomotor function are not yet available. This study investigated the effect of the technique on stride parameters during trot. Seventeen clinically sound college horses were randomised into treatment (n=12, mean age=11 years, mean height=160.6 cm) and control (n=5, mean age=10 years, mean height=160.5 cm) groups. Horses were trotted in hand at self-selected speed (by experienced handlers, blinded to the study) immediately before and two days following McTimoney treatment. Data were obtained using 2D gait analysis software. Average stride velocity (SV) and stride length (SL) were calculated from 4-6 left and right trot strides per horse. Treatment group horses received routine McTimoney treatment whilst the control horses remained in their stables. Post care exercise for all horses was controlled to 3 hours paddock turnout the day after treatment; and 20 minutes horse walker exercise prior to reassessment. Prior to treatment, student T tests revealed no significant differences ($p>0.05$) between the population data and average stride parameters for the 2 groups. Using paired T tests to compare pre-treatment and post-treatment data, there were significant increases in SL (mean SL (Day 0)= 2.25 ± 0.06 m, mean SL (Day 2)= 2.32 ± 0.04 m; $p<0.05$). The differences in stride length and velocity two days following McTimoney chiropractic treatment provide some evidence for the short term impact of treatment. This could have an implication in benefiting equitation science by improving performance, however further research is required on locomotor function following a treatment regime to fully understand the impact of McTimoney treatment on performance.

Lay Persons Message: Despite anecdotal evidence into the benefits of McTimoney Chiropractic on equine performance, there has been little scientific evidence produced. This study provides some evidence that McTimoney treatment influences stride length and speed (forwardness) of the horse during trot, however further evidence is required to fully understand the impact in improving performance.

Keywords: McTimoney, Chiropractic, kinematic, equine.