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### The Effects of Hippotherapy on Postural Control in Children with Cerebral Palsy: A Systematic Review

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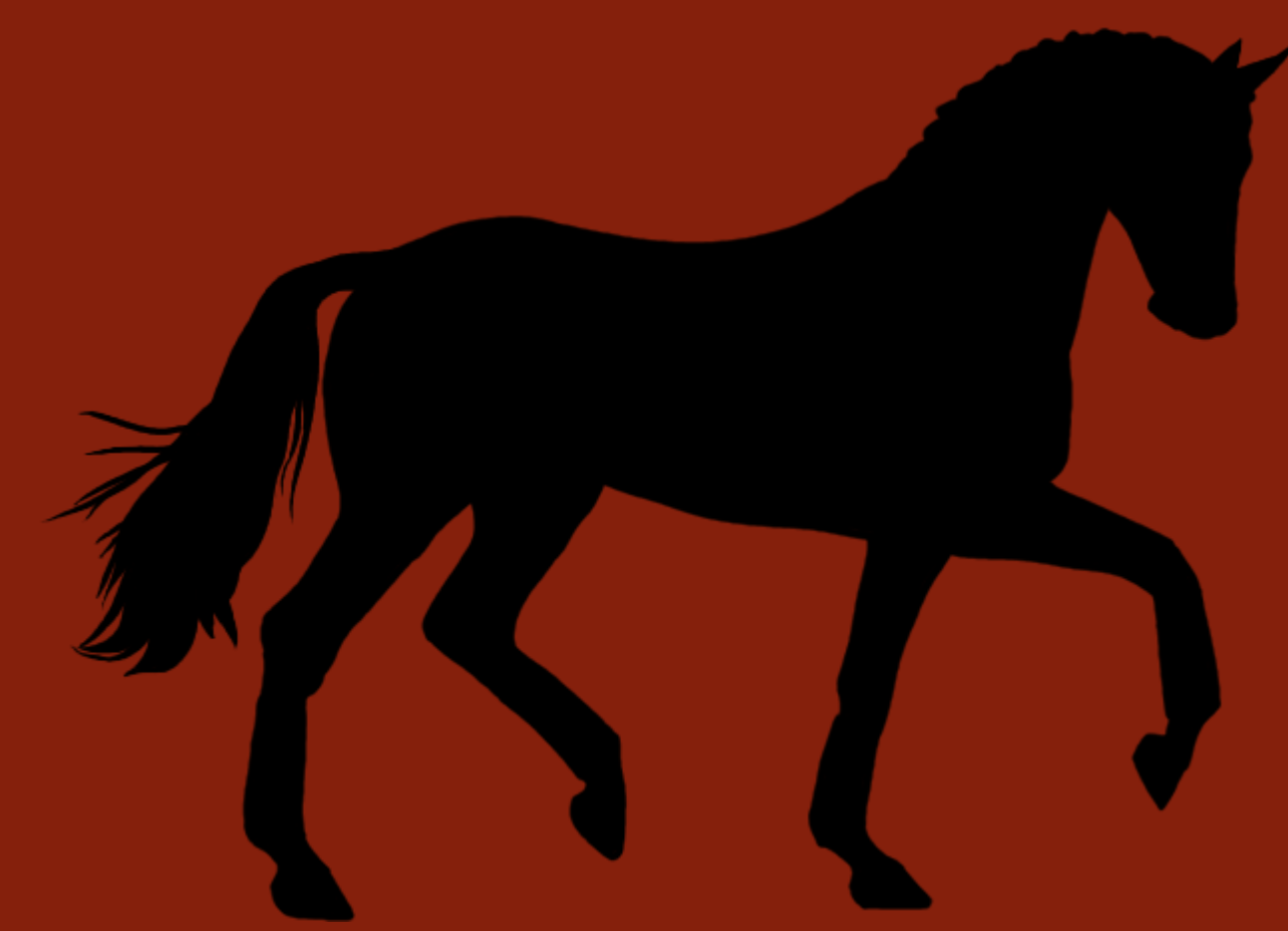
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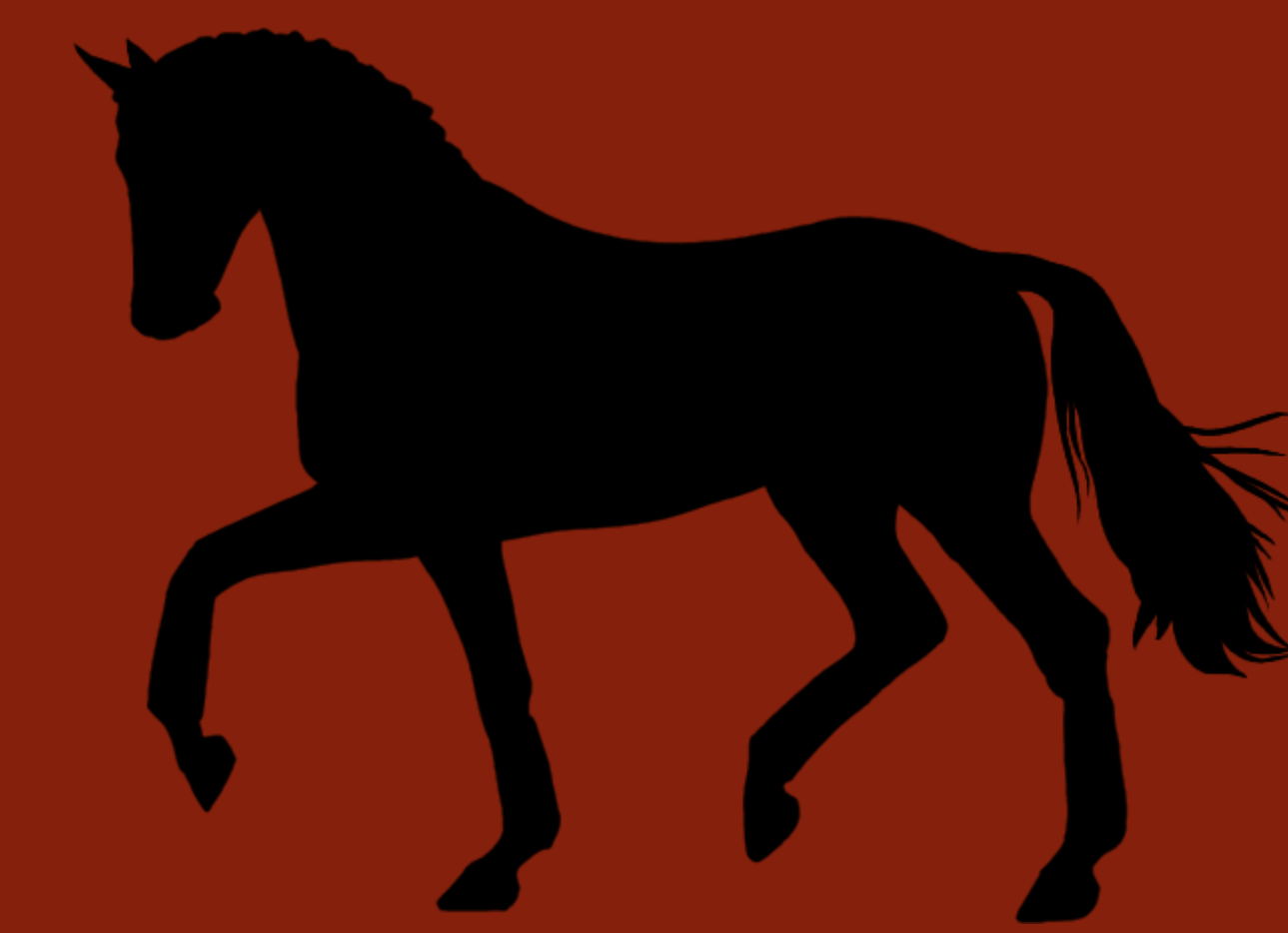
# The Effects of Hippotherapy on Children with Cerebral Palsy: A Systematic Review

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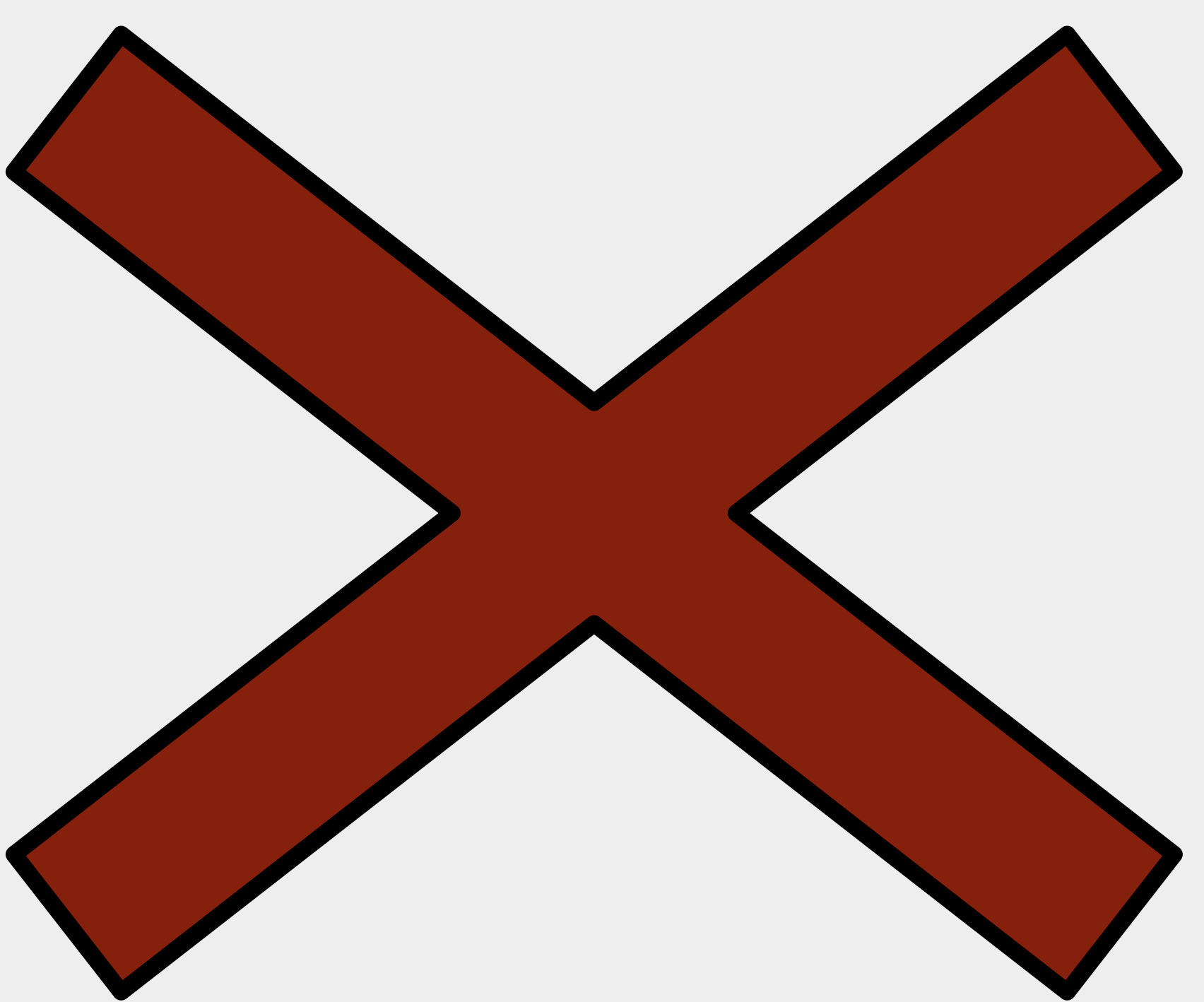
**Hippotherapy is an effective intervention to improve postural control in children with Cerebral Palsy.**

**Hippotherapy is best utilized when performed in conjunction with conventional therapies.**



**Background:**

- Cerebral Palsy (CP) describes a group of disorders that develop from non-progressive damage that occurred in the fetal or infant brain.<sup>1,2</sup>
- Children with CP have significant activity limitations and participation restrictions due to deficits in postural control.<sup>1,3-5</sup>
- A horse's gait provides a smooth, rhythmic, and repetitive pattern of movement that stimulates a patient's postural reflex mechanism.<sup>6-7</sup>
- Hippotherapy is performed by a licensed PT, OT, or SLP.<sup>7-8</sup>
- Mechanical riding simulators provide similar physical effects to hippotherapy with a live horse.<sup>9</sup>

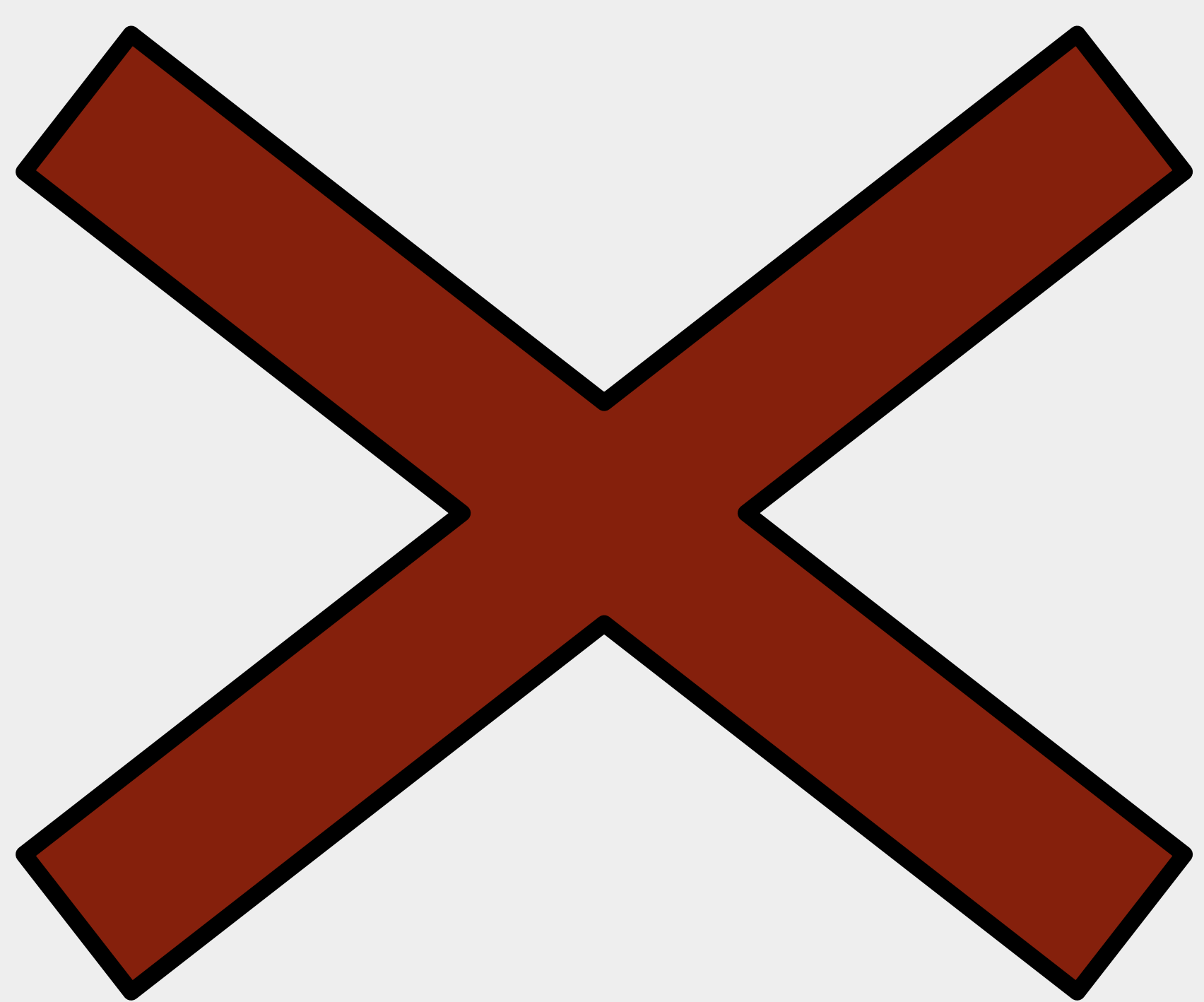


**Methods:**

- Academic Search Ultimate, PubMed, ScienceDirect
- Searches performed in August 2020 & January 2021
- 13 articles were included in this systematic review

**Summary of Evidence:**

- Average PEDro score: 6.07
- Significant improvements were observed in:
  - Gross motor outcome measure scores<sup>10-14</sup>
  - Overall balance and postural stability<sup>11-13,15</sup>
  - Muscle tone and activation of hip and core musculature<sup>13,16-20</sup>
  - Trunk control in static and dynamic environments<sup>10,18,21</sup>
  - Joint angles and range of motion<sup>11,17,22</sup>



**Discussion:**

- The inclusion of mechanical riding simulators allows hippotherapy to be more accessible.
- Therapists should be familiar with the diagnoses that are good candidates for hippotherapy and what the benefits of hippotherapy are.
- Learning where the nearest therapist is that offers hippotherapy is a great way to promote the intervention.
- Future research should be performed to examine the effectiveness of hippotherapy on other areas of motor function in children with CP and other developmental disorders.

