Kids with **Cerebral Palsy** show signs of motor learning after 5 days of balance training, but they have lower post-training performance than typically developing kids.

**BACKGROUND:**
- Cerebral palsy (CP) is the leading cause of physical disability in children.
- Learning/improving motor skills are primary goals of therapeutic intervention in children with CP.
- Despite many existing interventions, more data is needed to understand motor learning in children with CP—especially compared to their typically developing peers.
- This data is vital in determining optimal therapeutic dose.

**OBJECTIVE**
- Compare motor learning and performance variability between children with CP and typically developing (TD) children, using 5 days of dynamic balance training.

**HYPOTHESIS**
- Children with CP and TD children will show differing patterns of motor learning.
- Children with CP will show greater variability in motor learning compared to TD children, but variability will reduce with training.

**METHODS**
- 6 TD children (mean age: 11)
- 16 children w/ CP (mean age: 12)
- Task: Balance on stability platform, keep platform within 5° of horizontal.

**RESULTS**

**Fig. 1:** Both groups show motor learning after five days of balance training.

**Fig. 2:** Children with CP show greater variability than TD children during training, but variability reduces overtime.

**DISCUSSION**
- While TD children achieved almost maximum performance with training, children with CP may need more training to achieve this same performance.
- Alternatively, children with CP may reach maximum motor learning potential after a certain dose, therefore requiring other therapeutic interventions.
- Although limited by sample size, this preliminary data can inform further research on determining therapeutic dose and challenge progression in children with CP.