

A National Prospective Cohort Study
on the Effects of
Single Event Multi-Level Surgery
on Gait and Function in
Children with Diplegic Cerebral Palsy

action medical research



# **OUR FINDINGS**

## What was the CPinBOSS Study?

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The CPinBOSS study looked at **how well a surgery called SEMLS (Single-Event Multi-Level Surgery) works for children with Cerebral Palsy (CP)**. This surgery helps straighten the legs and is thought to improve walking.





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## Why was the CPinBOSS Study done?

SEMLS involves several operations at the same time, followed by rehabilitation. **Hospitals across the UK do SEMLS differently, and we didn't have detailed information about how well it worked.** The study collected information about the surgery and how children recovered.

#### What did the CPinBOSS Study involve?

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All UK hospitals doing SEMLS took part. They collected information on children having this surgery and followed their recovery for 2 years.



Information was also collected on **children who could potentially benefit from SEMLS but didn't** have the surgery so we could compare the results.



Parents and children filled in **questionnaires** about how well they were doing after treatment.

203 children joined the study; 139 had SEMLS surgery. At the end of the study, 188 children's data was looked at.

On average, **5** procedures were done during each surgery.

Complications happened in **18%** of cases, most of which had no lasting effects.

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## What were the main findings of CPinBOSS?

Surgery appeared to make walking straighter and more upright, as measured by gait analysis using computers.

Parents suggested that their children's walking improved, though changes in walking speed and distance were small.

It appeared that children who did not have surgery got worse with their walking over time.

### What did we learn from the CPinBOSS Study?



- Hospitals handle SEMLS differently.
- We found a clear signal to suggest an improvement in function following SEMLS.
- Different hospital teams need to get better at collecting the same information as each other, both before and after surgery. This will make future nationwide studies easier.