

Full source reference:

Palomo-Carrión, R., Pinero-Pinto, E., Ando-LaFuente, S., Ferri-Morales, A., Bravo-Esteban, E., & Romay-Barrero, H. (2020). Unimanual intensive therapy with or without unaffected hand containment in children with hemiplegia. A randomized controlled pilot study. *Journal of clinical medicine*, 9(9), 2992.

Free access link:

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7563985/pdf/jcm-09-02992.pdf>

Article Overview:

This randomized controlled pilot study examined the effectiveness of unaffected hand containment to obtain changes in the function of the affected upper limb after applying two unimanual therapies.

This pilot involved 16 children diagnosed with congenital infant hemiplegia, with eight children randomised in each group - modified constraint-induced movement therapy (mCIMT) vs unimanual therapy without containment (UTWC)

Sample: children aged 4 to 8 years with congenital infant hemiplegia who demonstrate a lack of use of the affected upper limb.

Key take home messages:

1. The use of unaffected hand containment in mCIMT produce improvements in the affected upper limb functionality in children with hemiplegia (4–8 years old) compared to the same protocol without containment (UTWC)
2. Absence of change in improvements in the UTWC group → in this group there was no involvement of the unaffected hand in the tasks, although the child was free to move it; thus, the parents had to remind the child not to use the unaffected hand during the treatment activities. In this situation, the brain may be obtaining information from both upper limbs and this would produce less affected limb participation than if the unaffected hand was contained
3. Quality of movement increased in both groups, and the greatest increase was obtained in the grasp variable.
4. Unaffected hand containment could reduce the “developmental disregard or non-use”, thus increasing spontaneous use and quality of movement in the affected upper limb in children with hemiplegia.
5. The levels of parental stress derived from the intensive treatment may have been adequately solved with the empowerment of the family, the support provided and follow-up sessions, thus ensuring their adherence to the treatment