



## FINE MOTOR



### MANAGEMENT OF HAND TREMOR IN SCHOOL-AGED CHILDREN

#### Did you know?

A lack of specific research evidence exists on the treatment and management of hand tremor in children with motor impairments. Therefore, any recommendations below should be evaluated when used with a child to determine their effectiveness.

#### What are the best strategies for the management of hand tremor?

The following suggestions to help improve fine motor skills for school-aged children with motor impairments are based on clinical expertise as well as clinical review articles, a primary research article and health organization websites that were developed primarily with children with cerebral palsy in mind, rather than those with tremor, specifically.

- **Supportive Seating:** Provide seating to ensure the child is well supported in chair/wheelchair with a desk/tray. A desk with a cut out may be useful. Feet should rest flat on the footplates/ floor.
- **Resistive Activities:** Strengthening and resistive activities can be trialed to improve fine motor function (Boston Children's Hospital, n.d.; Chung & Callanen, 2016; NINDS, 2012; Snook, 2016) and possibly to temporarily decrease hand tremor during tasks.
- **Weighted Equipment:** Trial use of weighted pens, pencils and wrist weights (NINDS, 2012).
- **Stabilization:**
  - Bracing or fixing the dominant arm against the body when doing fine motor activities (NINDS, 2012).
  - Holding onto a desk or other surface with non-dominant hand for steadying or using a hand anchor or similar stabilizer (NINDS, 2012).



Images by Rifton via <https://www.rifton.com/products/grab-bars-and-anchors/k821>

- **Adapted Equipment:** Adapting tasks at school:
  - Foods Class – rocker knife, suction bottom bowls, etc. (NINDS, 2012).
  - Eating and mealtimes – scoop plate, nonslip matting, weighted utensils, etc. (NINDS, 2012).

This resource has been developed by a team of occupational therapists at Sunny Hill Health Centre. The information included in this handout is based on current best available research and expert clinical opinion. Please contact your occupational therapist if you have any questions or concerns.

## References

Boston Children’s Hospital (n.d.). Treatments and care for movement disorders in children. Retrieved from <http://www.childrenshospital.org/conditions-and-treatments/conditions/m/movement-disorders/treatments>

Chung, A. & Callanen, A. (2016). Clinical Review, Cerebral Palsy: Occupational Therapy, CINAHL Information Systems, Rehabilitation Reference Center.

NINDS (July 2012). Tremor Fact Sheet. Retrieved from [https://www.ninds.nih.gov/Disorders/Patient-Caregiver-Education/Fact-Sheets/Tremor-Fact-Sheet#3243\\_6](https://www.ninds.nih.gov/Disorders/Patient-Caregiver-Education/Fact-Sheets/Tremor-Fact-Sheet#3243_6)

Novak, I. (2014). Evidence-based diagnosis, health care, and rehabilitation for children with cerebral palsy. *Journal of Child Neurology*, 29(8), 1141-1156.

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