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Fine motor control

Fine motor control is the coordination of muscles, bones, and nerves to produce small, exact movements. An example of fine motor control is picking up a small item with the index finger (pointer finger or forefinger) and thumb.

The opposite of fine motor control is gross (large, general) motor control. An example of gross motor control is waving an arm in greeting.

Problems of the brain, spinal cord, peripheral nerves (nerves outside of the brain and spinal cord), muscles, or joints may all decrease fine motor control. People with Parkinson disease have trouble speaking, eating, and writing because they have lost fine motor control.

The amount of fine motor control in children is used to help figure out the child's developmental age. Children develop fine motor skills over time, by practicing and being taught. To have fine motor control, children need:

- Awareness and planning
- Coordination
- Muscle strength
- Normal sensation

The following tasks can only occur if the nervous system develops in the right way:

- Cutting out shapes with scissors
- Drawing lines or circles
- Folding clothes
- Holding and writing with a pencil
- Stacking blocks
- Zipping a zipper

References

Chaves-Gnecco D, Feldman HM. Developmental/behavioral pediatrics. In: Zitelli BJ, McIntire SC, Nowalk AJ, Garrison J, eds. *Zitelli and Davis' Atlas of Pediatric Physical Diagnosis*. 8th ed. Philadelphia, PA: Elsevier; 2023:chap 3.

Kelly DP, McCain DH. Neurodevelopmental and executive function and dysfunction. In: Kliegman RM, St. Geme JW, Blum NJ, et al, eds. *Nelson Textbook of Pediatrics*. 22nd ed. Philadelphia, PA: Elsevier; 2025:chap 49.

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