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Manual Dexterity



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Synonyms

[Fine motor skills](#)

Definition

Manual dexterity is the ability to make coordinated and skillful hand and finger movements to grasp and manipulate objects. Additionally, manual dexterity requires coordination between muscular, skeletal, and neurological functions, including the vision system, in order to produce small, precise movements. Development of these skills occurs over time, primarily during childhood. Developed manual dexterity requires the ability to cognitively plan and execute a task. These skills are fundamental for an individual to experience and learn about his or her environment. Manual dexterity development follows a set of developmental milestones, beginning with gross motor body movements progressing to fine motor movements. Typical manual dexterity development results in the ability to write with a

pencil, stack blocks, pick up small items, cut with scissors, and other skills requiring precise movements. Difficulties with manual dexterity may be affected by a variety of conditions that include abrasions or dysfunctions of the brain, cerebellum, spinal cord, nerves, muscles, and/or joints. Developmental and genetic disorders, as well as neurological conditions, may impede manual dexterity; examples include autism spectrum disorder, Parkinson's disease, muscular dystrophy, Down's syndrome, cerebral palsy and/or a stroke, or traumatic brain injury. It is important to note in average individuals that fine motor skills decline with age.

Physical and occupational therapy can be implemented to improve manual dexterity.

Cross-References

► [Manual Strength](#)

References and Readings

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