



What Parents Should Know...

Handwriting

"Handwriting is a spiritual designing, even though it appears by means of a material instrument."

Euclid



One of the biggest milestones of childhood is learning to write your own name. Children are so proud to show you their crooked, misshapen letters that they made all by themselves. It is estimated that children in primary and elementary school spend up to half of their day working on tasks that require handwriting, but penmanship is rarely taught explicitly. This means they are taught to recognize their letters and make the general shape but do not have a standard of how their letters, spacing, and alignment should look. Children are typically competent in handwriting by age 6 or 7, with a well-established dominant hand. The development of handwriting is complex and requires good core strength, coordination, attention, visual-motor skills, and memory!



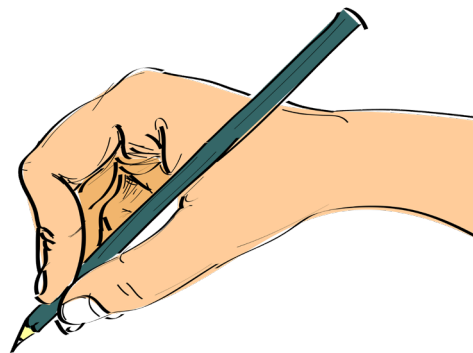
Writing is used for taking notes, practicing curriculum, spelling, word recognition, and exams through all levels of schooling.

Taking notes by hand requires greater cognitive activation and focus than typing skills, which can boost memory. Having a strong foundation of handwriting skills is linked to academic performance despite the stronger shift toward typing. Additionally, having decreased handwriting skills is associated with lower self-esteem, social functioning, and lower self-perception (Chung et al., 2020).

Penmanship- the art of writing by hand, including letter formation, spacing, and positions of letters on page.

Writing- penmanship with the incorporation of ideation, punctuation, sentence structure, and comprehension.

Functional grasp- A grasp that is functional and efficient will not exert excess strain on smaller hand muscles, allowing the individual to write or manipulate objects without tiring easily. A tripod grasp (seen to the right) with the thumb, pointer, and middle finger is considered ideal. The thumb should not wrap around the fingers, and the pinky and ring finger should be neatly tucked into the palm.



Letter formation- the sequencing and ability to write letters of the alphabet correctly according to cultural or language specific standards.

Pre-writing skills- fine motor skills that mimic writing skills and develop necessary musculature for penmanship (shapes, lines, and other coloring activities).

Fine motor skills- small, refined, controlled movements used to grasp, manipulate, and utilize small objects and utensils.

Gross motor skills- skills that use large muscle groups and can produce large body movements, coordination, posture, and balance skills that allow for walking, sitting upright, swinging, jumping, throwing, etc.

(Bishop, 2017; Chung et al., 2020; Jöhler, 2019)

Dysgraphia

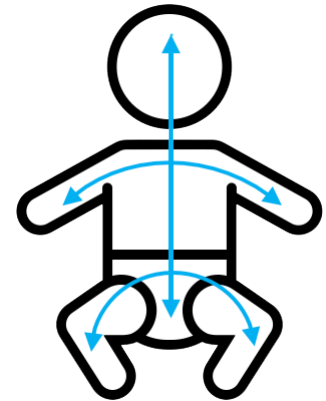
- **A specific learning disability in written expression; a disorder of writing despite adequate instruction, learning opportunities, and cognitive ability**
 - inability to form motor-memory of the letter (letter formation)
 - deficits in spacing, spelling, rate, grammar, composition, and fine motor coordination
 - High comorbidity with reading difficulties and dyslexia, neurodevelopmental disorders (ADHD, ASD), and mood disorders (anxiety, depression)

(Capellini et al., 2017; Chung et al., 2020).

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Quick Facts

- The bones and musculature of the hand are not fully developed for writing until age 7.
- Grasping skills start developing while still in utero, and babies learn to interact with their environment through reflexes including a grasp reflex! Babies are typically able to pick up small pieces of food using the tips of their finger and thumb by 1 year of age. This is called a pincer grasp and is a stepping-stone to a functional grasp for writing!
- Being able to write fluently, smoothly and automatically without having to think about each letter formation, does not develop until age 10. Then, the individual can focus more on ideas and comprehension than the task of handwriting.
- Children are typically able to complete circles at age 3, squares at age 4, and diagonal lines to make an “x” at age 5!
- Strength for writing begins with development from the core of the body out to the limbs.
- Gross motor skills, like a strong trunk, shoulders, elbows, and wrists are essential for handwriting development and support the development of fine motor skills.



If you have concerns about your child's writing...

Severe difficulties with writing can impact your child's academic performance, self-esteem, social functioning, and self-perception. It is also linked to difficulties with reading and math skills.

- Set up a meeting with your child's teacher. Ask about any concerns they have, express your concerns, and request a full evaluation.
- A team of professionals at your school (teacher, occupational therapist, speech therapist, school psychologist, etc.) will work together to assess your child for areas of concern to determine their needs.
- Dysgraphia is considered a specific learning disability, and under the IDEA legislation, may qualify a child for special education services in the area of writing, and accommodations or modifications to support their educational success.

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Practice fine and gross motor skills at home in order to promote handwriting development! This can be made fun and engaging, like writing letters in colored sand or shaving cream. Outside play including playground structures, climbing trees, ball sports, and animal walks that include weight on hands are great! Also consider crafts that involve playdoh, beads, cookie dough, clothespins, or scissors to target small muscles in the hands!



Resources

South Dakota Parent Connection

800-640-4553

www.sdparent.org

National Center for Learning Disabilities

www.understood.org

(search writing)

ADDitude Magazine

www.additudemag.com

(search dysgraphia or writing)



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3701 W. 49th St Ste 102
Sioux Falls, SD 57106
605-361-3171

Rapid City
2310 N. Maple Ave
Rapid City, SD 57701
605-681-3311

Aberdeen
1707 4th Ave SE Ste C
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605-626-8333

www.sdparent.org
1-800-640-4553



This communication was developed under grants from the U.S. Department of Education Project Grant H328M140021; Health Resources and Services Administration (HRSA), U.S. Department of Health and Human Services (HHS) Grant H84MC07994, Family to Family Health Information Center, \$96,700 and approximately 5% financed with non-governmental resources. The contents should not be construed as the official position or policy of, nor should any endorsements be inferred by US Department of Education, HRSA, HHS or the Federal Government.