

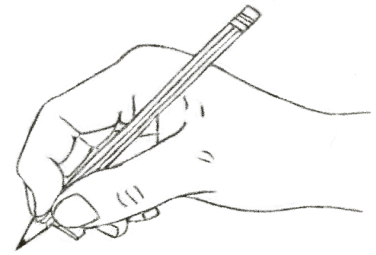
# Common Functional Grasp Patterns



Research suggests that the following common pencil grasp patterns are equally functional and are able to produce writing with similar speed and legibility (5).

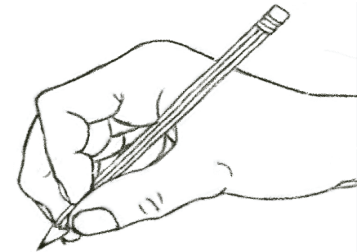
## Dynamic Tripod

The pencil is held between the tip of the thumb and the end of the index fingers; it rests on the side of the middle finger. Pencil movement is guided by the thumb, index and middle fingers.



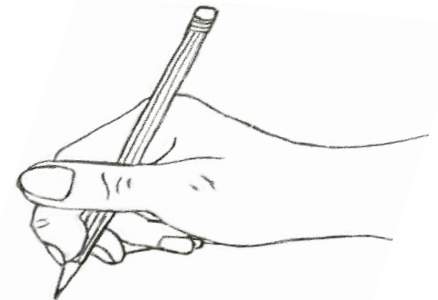
## Dynamic Quadupod

The pencil is held between the tip of the thumb, the end of the index finger, and tip of the middle finger; it rests on the side of the ring finger. Pencil movement is guided by the all of the fingers.



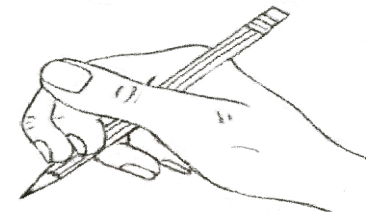
## Lateral Tripod

The pencil is secured between the middle of the thumb and the side of the index finger. Pencil movement is guided by the index and middle fingers.



## Lateral Quadrupod

The pencil is secured between the middle of the thumb and the tips of the index and middle fingers. Pencil movement is guided by the index, middle, ring fingers.



## References

1. Sinclair, B., & Szabo, S. (2015). Pencil size and their impact on penmanship legibility. *Texas Journal of Literacy Education*, 3(1), 5-13.
2. Oehler, E., Dekrey, H., Eadry, E., Fogo, J., Lewis, E., Maher, C., & Schilling, A. (2000). The effect of pencil size and shape on the pre-writing skills of kindergartners. *Physical & Occupational Therapy in Pediatrics*, 19(3-4), 53-60.
3. Reidlinger, W., Candler, C., & Neville, M. (2012). Comparison of differently lined paper on letter production quality in first graders. *Journal of Occupational Therapy, Schools, & Early Intervention*, 5(2), 155-164.
4. Asher, A. V. (2006). Handwriting instruction in elementary schools. *The American journal of occupational therapy*, 60(4), 461-471.
5. Schwellnus, H., Carnahan, H., Kushki, A., Polatajko, H., Missiuna, C., & Chau, T. (2012). Effect of pencil grasp on the speed and legibility of handwriting in children. *American Journal of Occupational Therapy*, 66(6), 718-726.
6. Schwellnus, H., Carnahan, H., Kushki, A., Polatajko, H., Missiuna, C., & Chau, T., (2013). Writing forces associated with four pencil grasp patterns in Grade 4 children. *American Journal of Occupational Therapy*, 67, 218-227
7. Ferriell, B. R., Fogo, J. L., McDaniel, S. A., Schillig, L. R., Shehorn, A. R., Stringfellow, J. K., & Varney, R. L. (2000). Determining the effectiveness of pencil grips: an electromyographical analysis. *Occupational Therapy in Health Care*, 12(1), 47-62.
8. Brevoort, K. N. (2017). Effect of Slant Boards in Combination with Handwriting Practice.