

# Children's Allied Health Services



# Developing an Efficient Pencil Grasp

Grasping a pencil is a skill that develops over time. It progresses from grasping a crayon with the whole hand and using a big arm movement, to, holding a pencil with the fingers in opposition and using only small finger movements. Control of the arm and hand movement develops from the shoulder out to the fingers. Initially movement is large and inaccurate, this changes to highly refined movement.

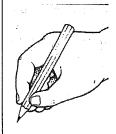
## The Developmental Sequence of the Pencil Grasp

31/2 - 4 vears

1 – 1½ years		2 – 3 Years	
0	Fisted Grasp		Pronated Grasp
	Held with fisted hand Wrist slightly bent forward Arm moves as unit		Held with fingers Index finger and thumb pointing downwards Forearm moves as unit

## Static Tripod Grasp

Held with crude approximation of thumb, index, and middle fingers. Ring and little fingers only slightly bent. Hand moves as a unit.

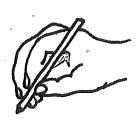


## 41/2 - 6 years

## **Dynamic Tripod Grasp**

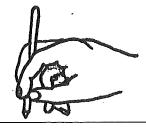
Held with the tip of the thumb and index finger and rests against the side of the third finger. The thumb and index finger form a circle. Wrist slightly bent back. Finger movements used.

The Dynamic Tripod Grasp is not the only efficient grasp. The **Quadrupod** and **Adapted Tripod** grasps are also efficient grasp patterns.



## Quadrupod

Pencil is held with the tip of the thumb, index finger, and third finger and rests against the side of the fourth finger. The thumb and index finger form a circle.



## **Adapted Tripod**

Pencil is held between the index and third fingers with the tips of the thumb and index finger on the pencil. The pencil rests against the third finger near its end.

**Inefficient Pencil Grasps** 

Weakness or poor coordination may cause a child to hold a pencil in a different way that provides more support or control. An awkward grip may interfere significantly with writing speed or legibility in later grades. Also, it may be very difficult to change a poor pencil grasp once it has been firmly established. It is important to develop hand and finger dexterity and strength so that an unusual grip is not needed.







#### **Activities to Develop a Mature and Efficient Pencil Grasp**

- 1. Engage the child in fine motor activities which promote strengthening and refinement of the pincer grasp (pad of thumb against the pad of the index finger). For example:
  - Picking up coins/buttons and putting them in slots, "piggy" banks
  - Playing games like Lite Brite, Operation, Bedbugs, Don't Spill the Beans, Kerplunk
  - Using small tongs, clothespins, tweezers, eye droppers
  - Pinching, pulling and rolling Playdough using the thumb, index, and middle fingers
  - Manipulating small objects such as buttons, math manipulatives, construction toys (e.g. Lego)
  - Removing objects from a container with a small opening using the fingers (e.g. film container, egg carton)
- 2. Encourage children to work on large surfaces, particularly chalkboards. Working on vertical surfaces at eye level will bring the wrist and hand in a better position to practice, and it will strengthen the movements and control that will be needed for printing.
- 3. Have the child use small stubs of chalk or crayon at times (which can only be used effectively with a three finger grasp and thus encourage self discovery of this grasp).
- 4. Promote the isolated use of the thumb, index and middle fingers by having the child hold a small object in the palm using his/her 4<sup>th</sup> and 5<sup>th</sup> fingers. While he/she is holding the object he can engage in grasping activities.
- 5. Provide a visual cue for the child to demonstrate where to hold the pencil, such as putting tape around the pencil in the appropriate spot.
- 6. Assist the child in placement of fingers and thumb around pencil, crayon, etc. in a mature tripod grasp. If necessary, use hand-over-hand assistance to demonstrate to the child the tripod grasp and how it feels, and to enable the child to maintain the grasp while drawing, coloring, printing, etc.
- 7. Develop verbal cues with the child that they will understand and associate with the feel of the required grasp. For example: "Use pointed fingers." "Pinch the pencil."
- 8. Use positive reinforcement when the child is observed using a dynamic tripod grasp or a grasp very similar to it.
- 9. Provide the child with a variety of experiences that incorporate the use of printing, drawing, colouring, painting, etc. Provide a variety of writing and drawing instruments for the child to use such as chalk, fat crayons, felt pens, paint brushes, etc. Experience and practice will assist in the development of the dynamic tripod grasp.

**N.B.:** Accept and reinforce <u>any</u> pencil grasp that is more mature than the one used previously. Do not expect a child to jump developmental sequences from a fisted grasp to a dynamic tripod grasp in one step.

If you have any questions, please contact your Occupational Therapist,