

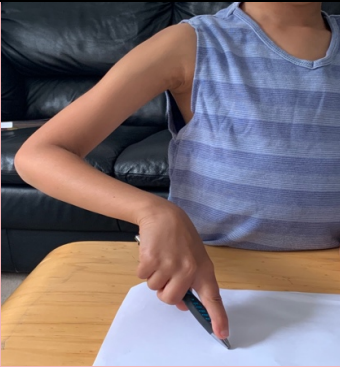
PENCIL GRASP MILESTONES

Note: 1) Every child is different, 2) these are rough ages, 3) kids do swap grasps

PALMER SUPINATE (FISTED) GRASP

Emerges 12-15 months

- grasps with all fingers
- thumbs not active yet
- uses whole arm to scribble & make marks
- directs pencil from shoulder
- arm lifted off surface



DIGITAL PRONATED GRASP

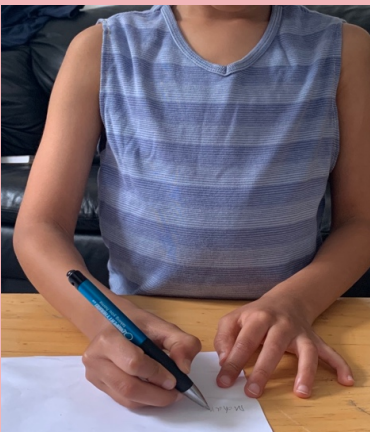
2-3 years

- index finger points down toward paper
- fingers wrapped around utensil, thumb participates
- shoulders turn inward and 'fixed'
- moves pencil from shoulder & elbow
- arm off table surface
- scribbles, draws vertical and horizontal lines, circular scribbles

STATIC TRIPOD / QUADRIPOD GRASP

3-4 years

- uses pads of thumb, index &/or middle fingers; 4th & 5th finger closed
- thumb opposed to fingers
- rests pencil on middle or fourth finger
- pencil angled back toward 'web space'
- wrist rests on table surface
- moves pencil from forearms or wrist
- fingers are 'static' & writes 'big'



DYNAMIC TRIPOD GRASP

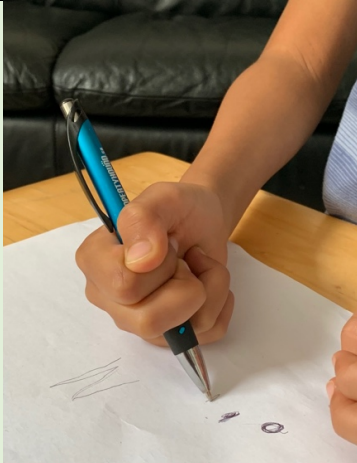
5-6 years

- uses pads of thumb and index finger
- rests pencil on middle finger
- moves pencil via finger movements
- ulnar (baby finger side) of hand stabilized on surface
- fingers direct the pencil using muscles within the hand
- able to write much smaller and with more control now

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INEFFICIENT PENCIL GRASPS

Inefficient grasps cause fatigue, pain, and illegible writing

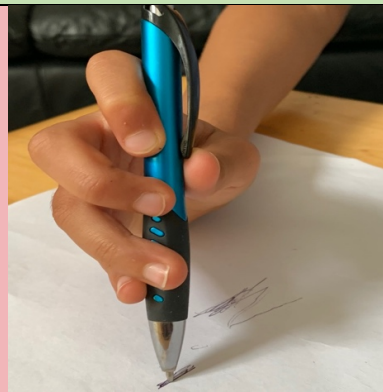


INTERDIGITAL BRACE

- index & middle fingers wrapped around
- pencil rests in space between index & middle finger
- top of pencil rests in thumb webspace
- pencil directed from forearm and wrist
- applies increased force so tires easily
- Child usually has weak core stability, decreased body & spatial awareness, difficulty crossing midline and reduced balance

INDEX OR FIVE FINGER GRASP

- index finger at top of pencil & braces at the last joint to stabilize pencil
- the DIP joints at end of fingers tend to be hyper-extended & fixed
- movement comes from the wrist
- often child uses light or too much force
- may tighten their shoulders for stability
- Child usually has weak core stability & shoulder strength, & precise control



THUMB TUCK OR WRAP

- Thumb wrapped over or tucked beneath the index finger
- weakness & instability in thumb muscles
- hard to control force, may press too hard
- pencil strokes directed from wrist / forearm
- big writing with less precision & dexterity
- fingers & thumb fix the pencil vs move it
- Child usually has weak core stability, body awareness, strength, & balance



ANOTHER THUMB WRAP VARIATION

- index and middle fingers fix the utensil versus mobilize it
- avoid using thumb due to weakness and instability
- fingers & thumb fix pencil vs move it
- often applies too much pressure
- find alternate ways to stabilize body by tightening shoulders, squeeze elbows at sides, or hold pencil too tightly



STABILITY = MOBILITY

*Stability refers to sensory awareness, strength and coordination in the body to be stable.

As one develops stability in their core muscles, this will allow increased mobility in their shoulders.

As a child develops stability in their core and shoulders, this allows increased mobility along their arm.

DECREASED STABILITY = DECREASED MOBILITY

Children will often find other inefficient ways to get more stability in their body. I.e. Inefficient pencil grasps. These cause joint pain, sore hands, fatigue, resistance to writing, and messy writing.

