



kids therapy made simple

Thumbs

The Opposable Thumb

Throughout history we have been told that what makes humans different from primates is that we, as humans, have Opposable Thumbs.

What exactly does that mean?

Thumb Opposition is the ability of the thumb to rotate and turn to touch the tips of each finger on the same hand. Opposable thumbs enable us to use tools and hold items in a way that other animals cannot.

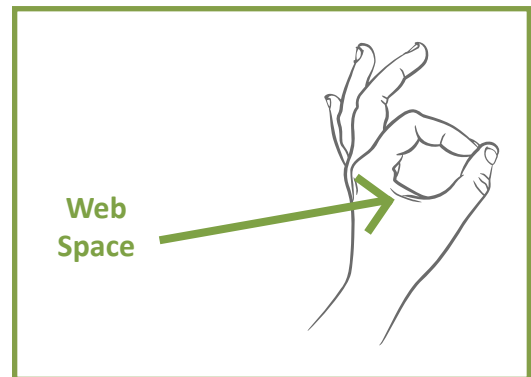
As children grow and develop, they begin to use different grasp patterns that allow them to strengthen their thumb rotation and opposition, allowing them to grasp eating utensils, toys, paint brushes and pencils/pens.

Web Space

An important aspect of thumb opposition is the web space: between the thumb and the index finger when both tips touch and form a circle.

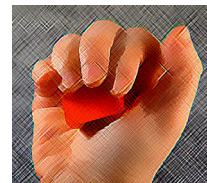
A strong, open web space allows us to complete tasks that require in-hand manipulation. It also allows us to grasp writing utensils efficiently, resulting in less stress on the joints of the hand. Children who state that writing/coloring is too hard or that their hands get tired, are usually found to have closed web space.

A closed web space is inefficient and not only can cause poor & slow handwriting, but it may also indicate thumb instability or weakness in the muscles that are responsible for thumb opposition.



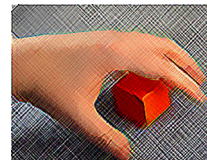
Developmental Progression of Grasp

Palmar Grasp



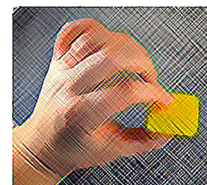
bringing fingers in toward the palm, allows babies to curl fingers around an object.
(4-6 months)

Raking Grasp



using the fingers (not including the thumb) like a rake, curling the top of the fingers over the object to bring it toward self.
(6-8 months)

Pincer Grasp



using the pads/tips of the thumb and index finger to pick up and hold objects.
(8-12 months)