

Glossary of Terms Relating to Movement and Brain Development:

Autonomic nervous system (ANS): The involuntary feedback loop between the brain and the body. Breathtakingly complex, yet elegantly simple in its mission, The ANS regulates everything in your body and brain every day of your life!!

Reflexes: Referring to the involuntary regulatory processes such as temperature regulation, digestion, blood pressure regulation and breathing, as well as physical reflexes such as rooting, grasping, stretching, etc.

The visceral brain: instinctive, deep, the oldest part of our human brain. Some refer to it as the “reptilian” brain.

The limbic brain: Known as the amygdale, hippocampus and hypothalamus, the parts of the brain concerned especially with emotion and motivation. Some refer to it as the “mammalian” brain. The limbic brain is responsible for feeling and emotional expression.

The neo-cortex: the dorsal region of the cerebral cortex that is unique to mammals (this is why sharks are scary and dolphins are cute!!), the neo-cortex is the most recently developed part of our brain. The neo-cortex is responsible for problem solving, logical sequencing, planning, reasoning, memory and language.

Core-distal: Movement that originates centrally (from the “core”, or torso, trunk, the center) and moves through to the extremities (reaching out towards the hands, feet and from the head.)

Head-tail: Refers to the neural connection through the ANS that travels along the spine within the cerebral spinal fluid, carrying messages to and from the brain to nerve receptors along the body. Head-tail movement emphasizes the connection between these two poles, the head and the “tail” (or pelvis).

Cross-lateral: Movement that is in opposition along a parallel axis. (Example = hands and knees crawling.)

Vestibular: Balance, referring to the inner-ear, the locus of balance, a system of organizing the body in space, time and gravity. Bi-pedal movement utilizes the vestibular, but so does lifting your head off the floor, being rocked and swayed, etc...

Kinesthesia: From the Greek, the word derives from “Body” “Perception”. Refers to sensory experience derived through the body: the movement of the muscles, joints, organs and tendons and the sense, cognitively and physically, they create.

Prone Position: The front of the body turned towards the supporting surface.

Locomotion: The power of moving from place to place.

Contact: Refers here to the social and emotional contact as well as leaps in cognitive ability that begins to emerge with the greater physical awareness and differentiation.