



## A Deeper Dive into Bal-A-Vis-X

The 3 key principles of Bal-A-Vis-X are: Visual Prioritization, Rhythmic Predictability and Parameters of Behavior.

The exercises require multiple mid-line crossings in three dimensions and the steady pace or rhythm is created from proper physical techniques with an auditory component providing a strong foundation. "Bal-A-Vis-X enables the whole mind-body system to experience the symmetrical flow of a pendulum." (Bill Hubert - creator, Bal-A-Vis-X.com) The exercises strengthen the foundation for learning through rhythm and movement. Patterned, repetitive rhythmic activity, such as Bal-A-Vis-X, provides multi-sensory input through the lower areas of your brain (brain stem) to prepare your brain and make it accessible to relational interactions, rewards and higher cortical thinking. Rhythm is involved in so many aspects of our daily life including speech, coordination, heart rate and walking to name just a few.

There are approximately 300 Bal-A-Vis-X exercises that range from simple to complex using only one bag or up to 6 balls simultaneously for individual exercises. Bal-A-Vis-X provides rhythmic predictability with repetition of movement patterns within each exercise. The rhythm is created internally through proper execution of physical technique. When the exercises are executed with proper technique and working in pairs or groups, synchronicity and resonance are the result.

The exercises can be modified and adapted when working with children and adults with varying levels of physical ability. Bal-A-Vis-X benefits children with learning differences, cerebral palsy, Down syndrome, developmental delay, autism, sensory processing disorder, ADHD/ADD, auditory processing disorder, and other neurological diagnoses.

Adults also benefit from Bal-A-Vis-X. The exercises can be utilized as a physical form of mindfulness to ease stress and anxiety. Bal-A-Vis-X benefits those with balance disorders or diagnoses such as Stroke, Traumatic Brain Injury, Parkinson's, Alzheimers/Dementia and others. The clients experience improvements in their ability to walk with less assistance, ease of transitions to sit and stand, and improvements in fine motor control which results in greater independence to complete daily self care. Individuals with PTSD also benefit from Bal-A-Vis-X exercises. The use of both sides of the body (bilateral integration) and the hands and feet, while completing the exercises, creates an integrated state to promote self regulation. It is also beneficial to complete the exercises prior to cognitive behavioral therapy for those experiencing PTSD.

The following is an excerpt from Interlimb Coordination, Early Childhood Research & Practice (ercp), Vol 11, #2: 2009. Authors C. Gabbard, Ed.D., et al. Early childhood is a period of landmark significance for motor development. Motor skills developed between the ages of 4 and 10 provide the foundation upon which more complex motor programs are formed. Early assessment of motor skills enables specialists to provide intervention, when indicated, at a young age, when plasticity of the nervous system is high. Early motor behavior plays an important role in social, emotional, and later academic-related activities, suggesting that both motor and cognitive performance share a common brain structure. In other words, movement experiences are essential for cognitive developmental change.

BAVX exercises provide interlimb coordination between both hands, same side (homolateral) hand and foot and opposite (contralateral) hand and foot. Rhythmic coordination of opposite hand and foot requires more complex coordination. This research suggests that interlimb coordination is linked to daily life skills, complex movement patterns and school performance. The repetitive nature of the Bal-A-Vis-X exercises, allowing for interlimb coordination, echoes the results of Gabbard, et al research findings. The various patterns are initiated in both the right and left hand and when the feet are added, increasing the level of complexity, they allow for strengthening the neural connections between the two hemispheres of the brain; nerves that fire together, wire together.

Due to the multiple crossings of the body's three physiological midlines, the information enters through sensory channels in the lower area of the brain (brainstem), known as bottom up processing. These three midlines separate the front and back, top and bottom and right and left sides of the body. They coordinate with the brain stem (also known as the survival brain where basic needs are met), the mid-brain, which deals with emotional and somatosensory experiences, and finally the frontal cortex which encompasses verbal language, conscious thought, executive function skills and self awareness respectively.

Bal-A-Vis-X provides a steady rhythmic beat when exercises are executed with proper technique. The visual and kinesthetic input that results from multiple midline crossings promotes integration of the sensory systems for regulated functioning of daily skills and interactions with others. Rhythm plays an integral part for proper speech, walking, conversing, heart function, reducing arousal that fosters negative behavior and promotes emotional stability to name just a few.

Bal-A-Vis-X provides patterned, repetitive, rhythmic somatosensory activity. It is dosed sequentially to allow for tolerable amounts of novelty to stress the neurological system of the child or adult just enough to learn resilience by building a working relationship with their partner so they become synchronous in their movements and can learn to laugh at errors and empathically assist their partner as needed.

“Bavx is the Physical Manifestation of Mindfulness. Mindfulness is mental focus and flow.

Bal-A-Vis-X is physical focus and flow.” (Bill Hubert)