

Interactive Metronome®

The Interactive Metronome® is another auditory-based intervention effective with individuals who experience difficulties with motor planning and sequencing and other neural timing difficulties which underlie challenges with learning, cognitive and social skills. Occupational therapists have long understood that motor planning and sequencing are key facets in the development of functional skills. They have traditionally addressed these difficulties with sensory integrative techniques and “top down” cognitive approaches for teaching specific skills.

The Interactive Metronome® is a computer-based version of the traditional music metronome. From existing studies and clinical reports, the most promising areas of use include motor planning and sequencing difficulties, rhythmicity and timing difficulties, primary motor control problems, language and speech difficulties, learning difficulties, cognitive problems, and social and communicative difficulties. Stanley Greenspan, a psychiatrist and clinical professor of psychiatry at the George Washington University Medical School, is the Director of Research for the Scientific Advisory Board of the Interactive Metronome®. He states that “the ability to plan and sequence action emerges early in the first year of life. It is essential for adaptive motor development and language development.” He goes on to state that “it is essential for complex social behaviour involving a number of sequential steps, such as sharing toys, complex greeting patterns, or simply playing with others.” In a letter to parents, Greenspan reflects, “the research using this tool strongly indicates new hope. This method may enable children to improve underlying processing abilities for motor planning and sequencing, strengthening their most fundamental learning capabilities.”

The Interactive Metronome® program provides a structured, goal-oriented process that challenges the client to synchronize a range of hand and foot exercises to a precise computer-generated reference tone heard through headphones. The client attempts to match the rhythmic beat with repetitive motor actions. A patented auditory-visual guidance system provides immediate feedback measured in milliseconds, and a score is provided.

Over the course of the treatment, change can be expected for clients in the following areas:

- Focus and attention for longer periods of time
- Increase physical endurance and stamina
- Filter out internal and external distractions
- Improve ability to monitor mental and physical actions as they are occurring (increase impulse control)
- Progressively improve coordinated performance

A program utilizing the Interactive Metronome® entails a minimum of 15 hours of treatment. The typical training schedule is a minimum of 3 times per week. In studies, a treatment protocol of less than 3 times per week was not shown to be as effective. More detailed review of current research can be found at www.interactivemetronome.com.