



Early Intervention For Non-Verbal Learning Disorder With IM

Layla is 19 months of age with Non-Verbal Learning Disorder, and other medical conditions including Microcephaly. From early stages she was unable to walk unsupported, no utterances were heard from her, and she only had 3-5 simple signs for communication with her parents. Layla's attention was fleeting, with less than 2 seconds devoted to any given task.

At first, Layla's parents and doctors tried occupational therapy. As the weeks in therapy progressed she made great strides with her standing and walked with a pediatric walker, yet she was still not paying attention or uttering sounds. To improve her attention and her communication skills, they decided to try Layla on Interactive Metronome (IM).

The IM program provides a structured, goal-oriented process that challenges the patient to synchronize a range of hand and foot exercises to a precise computer-generated reference tone heard through headphones. The patient 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. IM is a research-backed treatment program that helps improve timing through exercise and practice.

Due to her age and attention, Layla started IM sessions, assisted by her therapist, with 2 exercises and increased to 3 exercises by session 6 (of 15). Layla was very sensitive to the sound of the IM and the tactile stimulation of wearing the headphones, so soft preemie headbands and small pediatric headphones were used to minimize her discomfort.

Initially, halfway through the session, Layla would seek out a pacifier, her soothing device for anxiety, but soon began to refrain from seeking her pacifier. After 3-4 sessions, Layla would pick up the cards presented to her and intently examine the ones she was intrigued with; as the sessions progressed, so did her interest in the details the cards offered her. She was asked to point out specific details in some of the cards, and she could - with an amazing accuracy of approximately 90%. Layla also began to exhibit excitement, mimicking the movements of the IM and signing the word "play."

Layla has begun using sign language in 2-3 word combinations to increase her ability in being understood and expressing herself. She is using her eyes to track objects in her immediate environment, and she has begun to develop fine motor manipulative skills to further aid her in proper motor skills development.

Layla's mother reports that her utterances have increased drastically and now she makes sounds such as "ba," "da," "ma," and "pa," which are all clear indications of speech babble prior to beginning purposeful speaking. It's music to her mother's ears!

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IM can now be done at home! www.IMHome.org