

DISCLAIMER

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The information contained herein includes both psychological and non psychological interventions. The delivery of psychological services requires a medical referral whilst non psychological services do not.

Each person is an individual and has a unique psychological profile, biochemistry, developmental and social history. As such, advice will not be given over the internet and recommendations and interventions within this website cannot be taken as a substitute for a thorough medical or allied health professional assessment or diagnosis.

The Interactive Metronome (IM)

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WHAT IS IM-POWERED TRAINING?

The Interactive Metronome (IM) is a patented, computer based training programme developed in the United States of America which

- Has been shown to improve concentration, focus, reading / math fluency and mental processing speed
- Provides a non-invasive way to stimulate learning and development
- Backed by nearly a decade of clinical research and development

HOW DOES IM WORK?

- Standard training cycle is 12 one-hour sessions over a 3 to 4 week period.
- Each session lasts about an hour.
- There are a total of 13 hand and foot exercises.
- Patented guide sounds direct the student to the beat by providing immediate feedback.
- The training exercises are physically interactive so students stay engaged and challenged.

During each session, the computer produces a metronome beat heard through headphones. As the student listens, he / she performs various hand and foot exercises for a high number of repetitions to a rhythmic beat.

Auditory guide tones systematically help the student learn a 'perfect beat'. The difference between the student's response and the actual beat is measured in milliseconds and a score is provided. The ultimate goal is to achieve a low IM score, which indicates improved performance.

The following chart represents the structured 12 session programme (including pre-session).

	Pre Session	Session 1	Session 2	Session 3	Session 4	Session 5	Session 6
REPS							
100		Short form test	Short form test	Short form test	Short form test	Short form test	Short form test
200		Task 1	Task 1	Task 1	Task 4	Task 4	Task 10
300		300 Reps	200 Reps	500 Reps	500 Reps	600 Reps	200 Reps
400	PRE	No Guide Sounds	Task 4				Task 11
500	TESTING	Task 1	200 Reps				200 Reps
600		300 Reps	Task 2		Task 1		Task 7
700			300 Reps		1000 Reps		300 Reps
800		Task 2		Task 4			
900		250 Reps	Task 3	500 Reps		Task 1	
1000		Task 3	300 Reps			1200 Reps	Long Form Test
1100		250 Reps					
1200		Task 4	Task 4	Task 10			
1300		300 Reps	400 Reps	300 Reps			
1400							Task 1
1500	Long Form Test	Task 5		Task 11			1000 Reps
1600		250 Reps	Task 5	300 Reps	Task 10		
1700		Task 6	300 Reps		300 Reps		
1800		250 Reps		Task 7			
1900		Short form test	Task 6	400 Reps	Task 11		
2000			300 Reps		300 Reps	Task 12 100 Rps	
2100						Task 13 100 Rps	
2200			Short form test	Short form test	Task 7	Task 7	
2300					400 Reps	500 Reps	
2400							Task 4
2500							300 Reps
2600					Short form test		
2700						Short form test	Short form test

Research has clearly shown that the brain learns through repetition of precise activities. By learning to keep the beat of the IM precisely, the brain is subsequently trained to plan, sequence and process information more effectively.

The IM programme methodology directly impacts upon sensory input, focus and concentration, mental processing and timing of the execution of the required action resulting in improvements in those key areas of learning

1. FOCUS / CONCENTRATION

- Ability to "Turn On" Focus When Needed
- Ability to Focus for Longer Periods of Time
- Ability to Focus When Conditions Challenge Attention Span (fatigue, stress, pressure)

2. MENTAL PROCESSING

- Improved Processing Speed - Academic Fluency
- Improved Organisation of Information
- Enhanced Planning & Sequencing Capacities

3. TIMING

- More Precise Movement
- More Consistent Movement
- More Efficient Movement
- Improved Planning and Sequencing (Coordination, Thinking Skills)

The training systematically exercises focus, processing and timing in structured, objective learning environment.

It also serves also as an assessment tool with statistical norms.

Training involves 13 "basic" exercises in a patented approach auditory guidance (tonal and spatial). There are 12 one-hour format over 3 to 4 weeks (Pre / Post Testing and Training included). The duration of the exercises systematically increase over time, to serve as a "cognitive conditioning program" (25,000 Repetitions)

RESEARCH OVERVIEW

ACADEMIC PERFORMANCE STUDY

A correlation study of 585 children in a public school district found significant correlations between IM score and academic performance in reading, mathematics, language, science, social studies, and study skills. This study was published by the High / Scope Foundation, a prestigious, non-profit educational research institution since 1970.

ACADEMIC CORRELATION STUDY

A correlation analysis of five data sets including kindergarten, elementary students, ADHD boys, special education students and high school dropouts found significant relationships between IM performance and the following abilities:

- Reading
- Mathematics
- Oral / Written Language
- Writing
- Attention
- Co-Ordination

IM relies on a Clinical Advisory Board (CAB) to govern research and certification standards. The CAB is comprised of many leaders, including internationally recognised child psychiatrist, Stanley I. Greenspan, M.D.

[Clinical Professor of Psychiatry, Behavioral Sciences, and Pediatrics at George Washington University Medical School, a practicing child psychiatrist, and Chairman of the Interdisciplinary Council on Developmental and Learning Disorders Contributor to over 100 articles and 27 monographs and books including *The Child with Special Needs* and author of *Building Healthy Minds* (Perseus Books, 1999). Featured in *The Washington Post*, *Newsweek*, *Time Magazine*, *ABC's Nightline*, *NBC*, and *CBS*]

The March / April 2001 issue of the *American Journal of Occupational Therapy* identified five core areas of statistically significant improvements gained through the IM training programme:

- Attention / Focus
- Motor Control / Coordination
- Language Processing
- Control of Aggression / Impulsivity
- Timing / Sequencing

WHO CAN BENEFIT FROM THE INTERACTIVE METRONOME PROGRAMME?

The Interactive Metronome has broad-spectrum capabilities.

The programme can benefit children and adults with a wide range of physical and cognitive difficulties.

Populations who may exhibit these challenges include individuals with:

- Mild and Moderate Learning disabilities
- ADHD
- Traumatic Brain Injury (TBI)
- Cerebral Vascular Accident (CVA / Stroke)
- Parkinson's Disease
- Pervasive Developmental Disorder (PDD)
- Sensory Integration Difficulties