

IM Adult Rehabilitation Best Practices:

Motor Skills



Course Description:

Interactive Metronome (IM) is a performance-based feedback system that was initially developed as a tool to facilitate learning, sensory processing and attention in children. Early on, researchers and clinicians realized the potential of IM to also facilitate learning and neuro-muscular control in adults, especially for patients suffering from neurological conditions. The “Golf Study” performed by Terry M. Libkuman and Hajime Otani was the first study performed on adults which showed that IM was appropriate for this age group and possibly for persons suffering from orthopedic conditions. This study showed that IM improved the shot accuracy of golfers up to 35% by improving core skills. The case of Brenda Canup is a prime example of IM’s potential place in orthopedic rehabilitation. Mrs. Canup opted for a below-the-knee amputation after struggling with a foot deformity all of her life. After surgery, she became frustrated with her lack of progress and was still ambulating with a walker. Later in her treatment, after she’d lost virtually all hope of ever ambulating with her new prosthetic limb, she started the IM program and was finally able to make a full recovery and run the Disney Marathon. After further reports of good treatment outcomes with IM in this age group, clinicians began to incorporate IM more and more into treatment of the adult ortho and neuro patient. IM is now a standard of care in many adult outpatient clinics, rehabilitation hospitals, nursing homes, assisted living centers, home health agencies and acute hospital settings.

Until now clinicians have adapted IM technology for adult patients based upon knowledge, research and evidence-based practices employed in the pediatric populations. It has therefore become clear that there is a need in the Interactive Metronome (IM) community to develop “Best Practice Guidelines” to provide the clinician with proven techniques that will enhance their clinical practice and understanding of the Interactive Metronome as a tool for adult orthopedic and neurological rehabilitation.

This course is designed to provide the certified IM provider with advanced practice guidelines and techniques for the adult patient based upon sound clinical evidence and the skills of advanced IM practitioners. The material for this manual is therefore provided by clinical experts in their respective fields, and the information is organized according to body region and specific diagnosis.

***Contact hours are offered pending successful completion of a written exam at the end of the course.**

Target Audience:

This webinar welcomes the following professionals who have completed the Interactive Metronome Certification Course.

- Occupational Therapist
- Certified Occupational Therapy Asst
- Physical Therapist
- Physical Therapy Asst
- Athletic Trainer
- Psychologist
- Licensed Medical, Rehabilitation or Mental Health Professional
- Music Therapist

Instructional Level:

Advanced

Learning Outcomes:

Upon completion of this course, participants will be able to:

- Demonstrate an overall understanding of the anatomy of stroke and traumatic brain injury (TBI) and how these conditions affect muscle tone and neuromuscular coordination;
- Demonstrate an overall understanding of the anatomy and kinesiology of the shoulder, elbow, and hand, how this neuromuscular balance can be disrupted, and how IM may positively impact this balance;
- Demonstrate an overall understanding of lower motor neuron nerve damage and the healing process;
- Determine the candidacy of a patient for the IM assessment and training, and apply principles of motor learning in order to modify the application of Interactive Metronome (IM) based on the patient’s functional and baseline impairments related to stroke, TBI, lower motor neuron damage, Parkinson’s Disease, and other neurological disorders;

- Determine the candidacy of a patient for the IM assessment and training, and modify the application of IM based on the patient's functional and baseline impairments related to general orthopedic or post surgical conditions of the shoulder, elbow, and hand;
- Establish home exercise programs, including measures to self-monitor progress and changes in function;
- Evaluate patient success, and establish discharge recommendations.

***Note: This course covers information that pertains to licensed therapists and therapy assistants. COTA & PTA professionals must practice IM under the supervision of an OT or PT.**

Authors:

Karen Farron, MHS, OTR/L graduated with a Bachelor's Degree in Occupational Therapy from the University of Missouri-Columbia in 1984 and Master's Degree in Health Services from Washington University-St. Louis in 1990. She has worked as an Occupational Therapist for 23 years and as a Clinical Director for more than 15 of those years. She was recently appointed by Kansas Governor Kathleen Sebelius to the Kansas Board of Healing Arts on the Occupational Therapist Council. Karen is a Senior OT at Kansas Rehabilitation Hospital working with patients whose diagnoses include multiple trauma, stroke, brain injury, surgical amputations, MS, and pulmonary disease.

Andrew Dillen Hartley, OTR/L graduated from the University of Pretoria, South Africa, school of Occupational Therapy in 1995 and moved to the USA in 1996. He is co-owner of Advanced Therapy Solutions, Inc, an outpatient Physical and Occupational Therapy practice serving clients of all ages in five locations. Mr. Hartley has 14 years of clinical experience and is trained in multiple treatment approaches with both adults and pediatrics. His interests include the treatment of deficits related to stroke, traumatic brain injury, Autism, development disorders, sensory processing disorders, ADHD, ADD and learning disabilities in infants, children and adults. His experience with sensory integration, neuromuscular re-education, brain gym, vision therapy, environmental adaptation, Tai-Chi, yoga and technology based treatment approaches for all ages has served him well as a presenter of certification courses, webinars and professional seminars. Mr. Hartley serves as a clinical advisor for Interactive Metronome and other "Therapy based" companies in research, protocol and practice development areas.

Mary Jones, OTR/L, LMT, CIMT graduated from St. Loe's School of Occupational Therapy (UK) in 1986. Has been an Occupational Therapist for 20 (+) years and has been practicing in the USA since 1993. Additional training has included a BS in Healthcare and Social Welfare from Manchester University in 1992, Massage Therapy License in 1996, NDT certification in 1994. Mary has worked in a variety of healthcare settings in both the USA and the UK. These include home health in the inner-city (London), orthopedics, geriatric psychiatry, outpatient rehab, brain injury specialty (adult and pediatric) and pediatric outpatient therapy. Clinical advanced training includes NDT advanced courses, infant massage certification, cranio-sacral therapy, myofascial release techniques, motor control and the development of motor learning, Therapeutic Listening Program, Integrated Listening Systems, Brain Gym, Pilates, Active Isolated Stretching Techniques, Visual-motor Training, Vestibular Training, Beckman Oral Motor Assessment and Intervention, Handwriting Without Tears, ADHD and Nutrition Interventions, Aromatherapy, Aquatic Therapy, Sensory Integration assessment and interventions, Autism assessment and interventions, Interactive Metronome Certification and Development of Best Practice Strategies with IM. Mary owns her own pediatric practice "Sensational Kids LLC", based out of Bradenton, FL. Mary has lectured extensively in her field at a local and national level.

Linda Heifetz Rubin, OTR/L graduated with a degree in Occupational Therapy from the University of Wisconsin-Milwaukee in 1977. She has been the Senior OT for HealthSouth Largo, FL since 1994 and received HealthSouth's National Special Achievement Award for Clinical Excellence in 2003. In addition to using Interactive Metronome, Linda specializes in industrial rehabilitation and ergonomics, orthopedic upper extremity injuries, and neurological outpatients. Since her certification with Interactive Metronome in January of 2003, Linda enjoys using IM for Peds and adults, with diagnoses including ADHD/ADD, dysgraphia, developmental delays, CP, MS, TBI, RSD, Parkinson's, CVA, CA, SCI, brain tumors, and degenerative neurological disorders.

Shelley Thomas, MPT received her physical therapy degree from the Mayo Clinic in 1999 and is currently the Director of Rehabilitation at Idaho Elks Rehabilitation Hospital in Boise, Idaho. She has worked primarily adults with neurological and general medical issues and has embraced incorporating Interactive Metronome and Gait Mate into treatment sessions. She serves as the lead therapist at her facility working with physical, occupational, speech, and recreational therapists to educate them about how to incorporate IM and Gait Mate into their treatments to improve functional outcomes. Shelley has been teaching IM Certification Courses since 2008 and has contributed to the development of the Gait Mate Certification Course.

CEUs Offered for:

0.4 AOTA (OT/COTAs)

*PTs & PTAs may submit paperwork to your state board for CEUs



**APPROVED PROVIDER of
CONTINUING EDUCATION**
by The American Occupational
Therapy Association, Inc.

Interactive Metronome is approved by the Continuing Education board of AOTA to provide continuing education activities in occupational therapy. This program is offered for 0.4 CEUs (Advanced Level). The assignment of AOTA CEUs does not imply endorsement of specific course content, products, or clinical procedures by AOTA.