# An Introduction & Scientific Overview of Interactive Metronome for Adults



## **Course Description:**

The purpose of this course is to introduce you to the Interactive Metronome (IM), an evidence-based and powerful patented rhythm intervention with broad clinical application that leverages technology to improve the brain's efficiency and performance. Timing & rhythm are critical skills that reflect the degree of synchronization between neural networks in the brain and greatly influence the rehabilitation of cognitive, communicative, sensory, and motor skills. It is evident from peer-reviewed research that the perception and reproduction of timing & rhythm sequences is markedly deficient following acquired brain injury (Stroke, TBI, Concussion), in neuro-degenerative conditions (Parkinson's, MS) and in certain psychiatric conditions like Schizophrenia. Observable symptoms of poor timing and rhythm include trouble with all levels of attention, executive functions, working memory, processing speed, expressive & receptive language, motor coordination, balance and gait. In recent years, research conducted at the Defense and Veterans Brain Injury Center (DVBIC), Harvard University School of Medicine, Northwestern University and others have provided vital information about both the clinical and biological impact of Interactive Metronome. There is no prerequisite to attend this introductory course. \*1 contact hour/0.1 ASHA/AOTA CEU is offered pending successful completion of a written exam at the end of the course.

### **Target Audience:**

This course welcomes the following professionals:

- Speech and Language Pathologist
- Speech and Language Pathology Assistant
- Audiologist
- Occupational Therapist
- Occupational Therapy Assistant
- Physical Therapist
- Physical Therapy Assistant
- Athletic Trainer
- Licensed Medical, Rehabilitation or Mental Health Professional
- Chiropractor, Chiropractic Neurologist
- Music Therapist
- Educator

# **Instructional Level:**

Introductory

## **Learning Outcomes:**

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

- Cite at least 3 current research studies that demonstrate efficacy for incorporating Interactive Metronome training into adult rehabilitation interventions;
- List at least 5 conditions that benefit from the Interactive Metronome timing & rhythm intervention;
- Explain the "IM Effect."

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

## Specific Learning Outcomes for Speech-Language Pathologists & Audiologists:

- Cite at least 3 current research studies that demonstrate efficacy for incorporating Interactive Metronome training into therapy for the recovery of speech, language & cognitive-linguistic abilities;
- List at least 5 conditions that benefit from the Interactive Metronome timing & rhythm intervention;
- Explain the "IM Effect."

\*Note: This course covers information that pertains to licensed therapists and therapy assistants. SLPA professionals must practice IM under the supervision of a licensed SLP.

### Instructor (one of the following)

April Christopherson, OTR/L has been an Occupational Therapist for over 25 years and has worked with diverse populations in a variety of settings – including home health, private clinic and in-patient rehabilitation. She is the owner of Exploration Kids Therapy in Gunnison, CO serving the pediatric rehabilitation outpatient population having diagnoses such as Autism, ADHD, Dysgraphia, Misophonia, Down's Syndrome, Delayed Milestones, and general Education Department Contact Info:imcourses@interactivemetronome.com, 877-994-6776 opt 3 (US Only), 954-385-4660 opt 3, Fax: 954-385-4674

fine motor delays. She consults privately from her home in Colorado Springs, CO. She believes in a whole, team approach to the client – including various medical professionals and therapists plus the use of functional neurology and metabolic/nutrition counseling. April has worked as a legal consultant and as an expert witness throughout the United States. She is a member of the Adjunct Faculty for Interactive Metronome and Advanced Brain Technologies. April was granted her degrees in Occupational Therapy and Psychology from St Ambrose University in Davenport, IA in 1991.

Instructor Financial Disclosure(s): April is the author of course materials that focus on the clinical application of Interactive

Metronome technology, for which she has received honoraria from Interactive Metronome, Inc. She does not receive royalties or any other form of compensation for the continued publication and use of educational materials she has authored. April is also an instructor for Interactive Metronome, for which she receives a fee for teaching each course and reimbursement of travel expenses from Interactive Metronome, Inc. April does not sell or receive compensation for the sale of Interactive Metronome products.

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compensation for the continued publication and use of educational materials she has authored. April is also an instructor for Interactive Metronome, for
which she receives a fee for teaching each course and reimbursement of travel expenses from Interactive Metronome, Inc. April does not sell or receive
compensation for the sale of Interactive Metronome products.

Instructor Nonfinancial Disclosure(s): April periodically contributes blog posts to <a href="www.interactivemetronome.com">www.interactivemetronome.com</a> that are clinical in nature. She does not receive compensation for this. April uses the Interactive Metronome in clinical practice at MaxAchieve, Inc.

Dara Coburn, MS, CCC-SLP received her undergraduate and masters degree from the University of Central Arkansas and holds the Certificate of Clinical Competence issued by the American Speech-Language-Hearing Association. Dara served as the National Program Champion for Interactive Metronome within the HealthSouth Corporation. She currently serves as Interactive Metronome's Clinical Support contact person for Life Care Centers of America. Dara has been teaching IM Certification Courses since 2007 and has contributed to the development of the Adult Best Practice Certification Course and Fall Prevention Protocol. With expertise and experience in the field of neurological disorders, Dara has been able to accept this new treatment tool and successfully integrate it into her practice by modifying it to individually meet her patient's needs.

Instructor Financial Disclosure(s): Dara is an active member of Interactive Metronome's Clinical Advisory Board, for which she receives an annual honorarium from Interactive Metronome Inc. She is the author/co-author of educational offerings on the clinical application of Interactive Metronome technology, for which she has received honoraria from Interactive Metronome, Inc. She does not receive royalties or any other form of compensation for the continued publication and use of educational materials she has authored/coauthored. Dara is also an instructor for Interactive Metronome, for which she receives a fee for teaching each course and reimbursement of travel expenses from Interactive Metronome, Inc. Dara provides clinical consultation to IM providers and receives a consulting fee from Interactive Metronome, Inc for these extended educational services. Dara does not sell or receive compensation for the sale of Interactive Metronome products.

Instructor Nonfinancial Disclosure(s): Dara does not have any relevant nonfinancial relationships to disclose.

Heather Cross, OTR/L, has been an Occupational Therapist for 17 years. Her scope of practice has included hand therapy, orthopedic rehab, home health, school based therapy, acute care, and pediatrics. She is the co-owner of Performance Advantage, LLC in Colorado Springs, CO. Her current clientele includes a population that ranges from pediatrics to adult. She also works with high performance and pro athletes. She uses a holistic approach with all of her clients; utilizing various medical professions, treatment techniques, functional neurology, and metabolic/nutritional counseling. Heather received her BS in Occupational Therapy from Colorado State University in 1993. Since that time she has been an advocate of continuing education and sponsoring students in their fieldwork assignments at all levels. She has furthered her education through various courses and self study over the last 17 years. Recent courses taken have been chosen to help with her belief that clients can recover neurological functioning at all ages. Some of these programs include: the Listening program, the Alert Program, Sensory integration techniques, and studies in neurology. Heather uses Interactive Metronome as part of an intensive neurological treatment option for qualified clients and as an introductory functional treatment option for pediatrics. She is a huge proponent of the Interactive Metronome following several years of great success using IM with her clientele.

Instructor Financial Disclosure(s): Heather is the author of course materials that focus on the clinical application of Interactive Metronome technology, for which she has received honoraria from Interactive Metronome, Inc. She does not receive royalties or any other form of compensation for the continued publication and use of educational materials she has authored. Heather is also an instructor for Interactive Metronome, for which she receives a fee for teaching each course and reimbursement of travel expenses from Interactive Metronome, Inc. She provides clinical consultation to IM providers and receives a consulting fee from Interactive Metronome, Inc for these extended educational services. Heather does not sell or receive compensation for the sale of Interactive Metronome products.

Instructor Nonfinancial Disclosure(s): Heather uses the Interactive Metronome in clinical practice at Performance Advantage, LLC.

**Kelli Crovo** graduated Summa Cum Laude from University of Florida in 2004. She has over two years of post-graduate work in the health field and has clinical experience in both the hospital and outpatient rehabilitation setting. She has been involved in developing educational tools for new technologies and has lectured on the link between health care and technology.

Instructor Financial Disclosure(s): Kelli is the Vice President of National Accounts for Interactive Metronome. She receives compensation for the sale of Interactive Metronome products.

Instructor Nonfinancial Disclosure(s): Kelli does not have any relevant nonfinancial relationships to disclose.

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.

Instructor Financial Disclosure(s): Dillen is an active member of Interactive Metronome's Clinical Advisory Board, for which he receives an annual honorarium from Interactive Metronome, Inc. He is the author/co-author of numerous courses that focus on the clinical application of Interactive Metronome technology, for which he has received honoraria from Interactive Metronome, Inc. Dillen does not receive royalties or any other form of compensation for the continued publication and use of educational materials he has authored/coauthored. Dillen is also an instructor for Interactive Metronome, for which he

receives a fee for teaching each course and reimbursement of travel expenses from Interactive Metronome, Inc. Dillen does not sell or receive compensation for the sale of Interactive Metronome products.

Instructor Nonfinancial Disclosure(s): Dillen uses the Interactive Metronome in clinical practice at Advanced Therapy Solutions.

Lorraine Sgarlato, CCC-A, Au.D., received her doctorate degree in Audiology from the Pennsylvania College of Optometry's School of Audiology. She has been an audiologist for 27 years. She has held the Certificate of Clinical Competence issued by American Speech Hearing Language Association since 1984. Dr. Inducci is considered an expert in the field of auditory processing disorder and children with language based learning disabilities. Dr. Inducci is on staff at Robert Wood Johnson Hospital in Hamilton New Jersey where she works with a broad population of infants through adult. She performs audiological evaluations, auditory processing testing and therapy, hearing aid fittings, and vestibular testing. Dr. Inducci has had a private practice in Yardley Pennsylvania since 1996. She employs teachers and therapists to evaluate and treat children with auditory processing, A.D.H.D., P.D.D., and language learning disabilities. Her practice concentrates on evidence-based therapies and practices which Dr. Inducci is certified in providing. These therapies include Fast ForWord Language programs, The Listening Program, Interactive Metronome, Lindamood-Bell programs, as well as other multisensory reading programs. Dr. Inducci serves the community as an advocate and expert witness for children with various learning disabilities, including those in the autism spectrum. She often lectures to the community and to professionals on Brain Fitness, APD, Autism, ADHD, and vestibular rehabilitation. Dr. Inducci became an IM provider soon after the company went public. She is proud to be a member of the Interactive Metronome family and looks forward to educating the professional community on IM therapy and best practices.

Instructor Financial Disclosure(s): Lorraine is the author of course materials that focus on the clinical application of Interactive Metronome technology, for which she has received honoraria from Interactive Metronome, Inc. She does not receive royalties or any other form of compensation for the continued publication and use of educational materials she has authored. Lorraine is also an instructor for Interactive Metronome, for which she receives a fee for teaching each course and reimbursement of travel expenses from Interactive Metronome, Inc. She does not sell or receive compensation for the sale of Interactive Metronome products.

Instructor Nonfinancial Disclosure(s): Lorraine uses the Interactive Metronome in clinical practice within her private practice and at the hospital where she is employed.

Jonathan P. McKee, OTR/L earned a Bachelor's degree in Occupational Therapy from the Medical College of Georgia and a Bachelor's degree in Business Administration from the University of Central Florida. He is the proprietor of Life Cycle Therapy providing specialized evidence based treatments focusing on the child's individual potential to improve. In his practice he uses specific sensory-based approaches to make neurological changes. Jonathan earned the RIMC designation from IM in 2006 and has successfully implemented the IM Home programs with children and adults for the past several years. He has been interviewed for both the Birmingham News and TalkAutism about the success his clients have experienced with IM. He has earned various certifications and licenses and received the Achiever's Award for Dedicated Service to Children. Jonathan has focused on bringing the IM conveniently to his clients' homes and has learned how to adapt the IM for clients ranging from limited to accelerated abilities.

Instructor Financial Disclosure(s): Jonathan is the author of course materials that focus on the clinical application of Interactive Metronome technology, for which he has received honoraria from Interactive Metronome, Inc. He does not receive royalties or any other form of compensation for the continued publication and use of educational materials he has authored. Jonathan is also an instructor for Interactive Metronome, for which he receives a fee for teaching each course and reimbursement of travel expenses from Interactive Metronome, Inc. Jonathan does not sell or receive compensation for the sale of Interactive Metronome products.

Instructor Nonfinancial Disclosure(s): Jonathan uses the Interactive Metronome in clinical practice at Life Cycle Therapy.

**Keith Reeber, MSPT** is a physical therapist with a Master's Degree from the University of Miami. He has 10+ years of clinical experience in hospitals, private practices and sports clinics working with orthopedic, neurologic, post-surgical and wound care patients. He has managed accounts in the United States and abroad and has experience lecturing on product services and solutions to foster continued rehab growth.

Instructor Financial Disclosure(s): Keith is a sales manager for Interactive Metronome. He receives compensation for the sale of Interactive Metronome products.

Instructor Nonfinancial Disclosure(s): Keith does not have any relevant nonfinancial relationships to disclose.

Amy Vega, MS, CCC-SLP received her master's degree in speech-language pathology from the University of South Florida in 1994 and holds the Certificate of Clinical Competency from the American Speech Language & Hearing Association (ASHA). She specializes in adolescent and adult rehabilitation for patients diagnosed with traumatic brain injury, stroke, epilepsy, brain tumor & and other disease processes that affect communication, cognition, and behavior. She currently serves as Director of both the Clinical Education Department and the Clinical Advisory Board for Interactive Metronome, Inc. and is their Continuing Education Administrator. She provides clinical support to IM providers globally, serves as Editor in Chief for IM's clinical publications and website FAQ/Best Practices search engine, develops IM certification materials, and is the master-trainer for IM certification instructors.

Instructor Financial Disclosure(s): Amy is an employee of Interactive Metronome, Inc. (IM). She receives a salary for her role as IM Clinical Education Director, Clinical Instructor, and IM Clinical Advisory Board Director from Interactive Metronome, Inc. She has also received limited shares of stock as compensation from Interactive Metronome, Inc. Amy has authored/coauthored IM training modules for which she received honoraria from Interactive Metronome, Inc. She does not receive royalties or any other form of compensation for the continued publication and use of educational materials she has authored/coauthored. When teaching, she receives a fee and reimbursement of travel expenses from Interactive Metronome, Inc. Amy does not sell or receive compensation for the sale of Interactive Metronome products.

Instructor Nonfinancial Disclosure(s): Amy does not have any relevant nonfinancial relationships to disclose.

### **Course Content Disclosure:**

The Interactive Metronome, Inc. has developed and patented a licensed technology trademarked as the Interactive Metronome®. (U.S. Patents #4,919,030; #5,529,498; #5,743,744; #6,719,690; other U.S. and foreign patents pending) Interactive Metronome, Inc. is the sole source of the following products: Interactive Metronome®, Gait Mate® and IM Home®. Because there are no other like-kind products available, course offerings will only cover information that pertains to the effective and safe use of the above-named products.

#### Course Origination Date\*: 3/1/2020\*

\*This course is updated annually with information pertaining to the most current hardware/software, research & clinical/academic applications.

## Agenda (1 hour):

- Speaker Introduction & Disclosure
- Interactive Metronome Introduction & Demonstration
- The Importance of Millisecond Feedback
- Scientific Basis: The IM Effect
- Research/Clinical Application
  - o Traumatic Brain Injury
  - ADHD
  - Aphasia
  - Hemiplegia/Upper Extremity Function
  - o Balance & Gait
  - o Parkinson's Disease
  - Fall Risk Reduction
- Candidacy for Interactive Metronome
- Question & Answer Period
- Online Post-Test & Course Evaluation

#### **Instructional Methods:**

LECTURE, PPT, VIDEO, CASE STUDY

### **CEUs Offered for:**

0.1 ASHA (SLP)

0.1 AOTA/1.25 NBCOT PDUs (OT/OTA)

PT/PTA & Other Disciplines Not Listed Ábove: If your discipline or state is not listed above, you may submit paperwork to your state board or association for CEUs if they allow you to do so. Please check with your state board/association prior to registering for this course.

This is not a co-sponsored or cooperative course offering. Interactive Metronome, Inc. is the organization responsible for creating the content & awarding ASHA and AOTA CEUs.



Interactive Metronome is approved by the Continuing Education Board of the American Speech-Language-Hearing Association (ASHA) to provide continuing education activities in speech-language pathology and audiology. See course information for number of ASHA CEUs, instructional level and content area. ASHA CE Provider approval does not imply endorsement of course content, specific products or clinical procedures.

This course is offered for <u>0.1</u> ASHA CEU (<u>Introductory</u> level, <u>Professional</u> area).

Effective July 1, 2011, individuals must meet at least one of the following conditions in order to be eligible to earn ASHA CEUs.

- ASHA Member (includes Life member and International affiliates)
- ASHA Certificate of Clinical Competence (CCC) Holder
- · Licensed by a state or provincial regulatory agency to practice speech-language pathology (SLP) or audiology
- Credentialed by a state regulatory agency to practice SLP or audiology
- Credentialed by a national regulatory agency to practice SLP or audiology
- Currently enrolled in a masters or doctoral program in SLP or audiology



Interactive Metronome, Inc is an AOTA Approved Provider (#4683). This <a href="introductory course">introductory course</a> is offered for 1 contact hour/ 0.1 AOTA CEU (Classification Code - Professional Issues-OT RESEARCH). The assignment of AOTA CEUs does not imply endorsement of specific course content, products, or clinical procedures by AOTA.