<table>
<thead>
<tr>
<th>Time</th>
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<tbody>
<tr>
<td>7 - 8 a.m.</td>
<td>Breakfast &amp; Registration</td>
</tr>
<tr>
<td>8 - 8:10 a.m.</td>
<td>Welcome and Introductions</td>
</tr>
<tr>
<td>8:10—8:25 a.m.</td>
<td>Special guest speaker, State Representative Bill Reineke</td>
</tr>
<tr>
<td>8:30—11:05 a.m.</td>
<td>Research Shorts followed by Interactive Q &amp; A with presenters</td>
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<tr>
<td>8:30—8:48 a.m.</td>
<td>Pain. Is it Emotional, Physical, or Both? - Stephanie Carter Kelly, PT, PhD, OCS, CYI</td>
</tr>
<tr>
<td>8:50—9:08 a.m.</td>
<td>Persistent Pain Management: A PT/Patient Partnership— John DeWitt, PT, DPT, SCS, AT</td>
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<tr>
<td>9:10—9:30 a.m.</td>
<td>Interactive Q &amp; A with the first group of presenters</td>
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<tr>
<td>9:30—9:45 a.m.</td>
<td>Break</td>
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<tr>
<td>9:45—10:03 a.m.</td>
<td>Electrotherapy for Chronic Pain: Combining Active and Passive Modalities—Amy Banks, PT, DPT &amp; Rose Smith, PT, DPT, Med, SCS, ATC</td>
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<tr>
<td>10:05—10:23 a.m.</td>
<td>Interdisciplinary Method for Assessment &amp; Treatment of Chronic Headaches (IMATCH) - Jim Edwards, PT, DPT</td>
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<tr>
<td>10:25—10:43 a.m.</td>
<td>Applying Interdisciplinary Approaches to Manage Pain and Dysfunction in Persons with Non-Arthritic Hip Disease—Lindsey Brown, PT, DPT</td>
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<tr>
<td>10:45—11:05 a.m.</td>
<td>Interactive Q&amp;A the second group of presenters</td>
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<tr>
<td>11:05—11:15 a.m.</td>
<td>Break</td>
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<tr>
<td>11:15—12:15</td>
<td>Platform Presentations</td>
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<tr>
<td></td>
<td>- Menstrual Function Not Related to Clinical Outcomes in Females After Acute Spondylolysis: An Observational Analysis - Mary Kathryn Vicary, DPT (20 mins)</td>
</tr>
<tr>
<td></td>
<td>- Evaluation of a Sequential Cognitive and Physical Treatment Approach for Patients with Patellofemoral Pain: A Randomized Controlled Trial—Mitchell Selhorst, PT, DPT, OCS (20 mins)</td>
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For more information, go to the Events/Scientific Symposium page on the OPTA website.

Registration ends October 5, 2017!
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<tr>
<th>Time</th>
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<tr>
<td>12:15—1:15 p.m.</td>
<td>Lunch &amp; Poster Presentations</td>
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<tr>
<td>1:15—1:30 p.m.</td>
<td>Poster &amp; Grant Recipient Awards</td>
</tr>
<tr>
<td>1:30—4:30 p.m.</td>
<td>Research Shorts Continue with Interactive Q&amp;A with presenters to follow</td>
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<tr>
<td>1:30—1:48 p.m.</td>
<td>Modifying Pain Science and the Biopsychosocial Approach for Children with Chronic Pain—Jessica Jones, PT, DPT, CMPT</td>
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<tr>
<td>1:50—2:08 p.m.</td>
<td>Pain, Mobility and Aging: Mechanisms and Management—Mary Milidonis, PT, PhD</td>
</tr>
<tr>
<td>2:10—2:28 p.m.</td>
<td>The Good, the Bad, and the Ugly: Treatment of Complex Regional Pain Syndrome and Centralized Pain Syndromes in Pediatrics—Heidi Kempert, PTA</td>
</tr>
<tr>
<td>2:30—2:50 p.m.</td>
<td>Interactive Q&amp;A with the first group of afternoon presenters.</td>
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<tr>
<td>2:50—3:00 p.m.</td>
<td>Break</td>
</tr>
<tr>
<td>3:00—3:18 p.m.</td>
<td>Pain Management 2.0: An Upgrade to Our Pain Management Tools—Lucas VanEtten, PT, DPT, OCS</td>
</tr>
<tr>
<td>3:20—3:48 p.m.</td>
<td>Randomized Clinical Trial Comparing the Use of Dry Needling to Non-Thrust Mobilizations for Patients with Mechanical Low Back Pain—David Griswold, PT, DPT, PhD, COMT, CMP, CIDN and Ken Learman, PT, PhD, OCS, FAAMPT</td>
</tr>
<tr>
<td>3:50—4:08 p.m.</td>
<td>Cupping Therapy in Treating Plantar Fasciitis—Weiqing Ge, PT, DPT, PhD and Vincent Ragozine, PT</td>
</tr>
<tr>
<td>4:08—4:30 p.m.</td>
<td>Interactive Q&amp;A with final three presenters/Interactive Wrap-Up session and Questions.</td>
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Scientific Symposium 2017

“#CHOOSEPT: EVIDENCE FOR PHYSICAL THERAPY PAIN MANAGEMENT WITHOUT OPIOIDS.”

To view their bio + “RESEARCH SHORT” scroll to view. Scroll to view PLATFORM Presentations Scroll to view POSTER Presentations
Research shows that emotional and physical pain are experiences of the brain. This short talk will investigate the following questions using both research and my experience as an integrative practitioner using yoga as therapy. Can the brain discriminate between emotional and physical pain? Can the physical therapist address emotional pain in the plan of care? What are the clues to identifying the emotional basis of physical pain?

John DeWitt, PT, DPT, SCS, AT

John DeWitt, PT, DPT, SCS, AT is a board-certified specialist, faculty member with the Division of Physical Therapy at OSU and Associated Director of OSU Sports Medicine. Dr. DeWitt lectures on persistent pain condition has presented national webinars on the subject. Over the course of 16 years in clinical practice he has seen a significant number of persistent pain conditions in both the orthopedic and sports population. He is currently work with a multi-disciplinary team at OSU to develop a more comprehensive approach to managing these conditions. Dr. DeWitt has presented at the state and national levels on several occasions. This summer he will serve a member of the Oxford Debate at APTA’s NEXT conference and lectures prominently within OSU’s PT curriculum. John was recently award the excellence in education award through APTAs, Sports Section in recognition of his contribution to education and teaching. The patient within the case report will present alongside Dr. DeWitt to provide a patient’s perspective and answer questions from the audience.

"RESEARCH SHORT"

[**NOUN**]: DEFINED AS AN 18-MINUTE PRESENTATION DESIGNED TO ENGAGE & INSPIRE
Persistent Pain Management: A PT/Patient Partnership - John Dewitt, PT, DPT, SCS, AT

Chronic of persistent pain conditions are common and have an annual healthcare cost exceeding cancer, diabetes, and heart disease combined. Limited outcomes with use of traditional pharmacological approach are not successful reinforcing the needs for a comprehensive rehabilitation approach focus on individual patient characteristics. The purpose of this presentation is to describe the importance of the PT/patient partnership to utilize evidence-based treatment approaches tailored to the attitudes, beliefs, and values of the patient. Cognitive behavioral therapy techniques, pain exposure, and graded imagery will be discussed to identify efficacious interventions to optimize outcomes.

Amy Banks, PT, DPT. Appointed point of contact within the Cincinnati VA for pain management who is involved in various roles within pain care provided at the facility. Dr. Banks also serves as a provider of physical therapy in an interdisciplinary team within the chronic pain clinic consulting with and delivering this service to Veterans working closely with a psychologist, chiropractor, nurse, social worker and medical doctor. In addition to serving Veterans, Dr. Banks has also educated other VISN physical therapists about the comprehensive pain rehabilitation program and supervises students in a specialized clinical rotation as a certified clinical instructor and certified VHA residency level mentor.

Rose Smith, PT, DPT, Med, SCS, ATC is a Professor of Clinical at the University of Cincinnati. Dr. Smith has taught the electrotherapy portion of the physical therapy curriculum for over 15 years. She has been a member of the TEAM ECHO panel for UC Health the last one and half years presenting the physical therapy care in chronic pain management. The audience for the 1-hour CEU monthly panel discussion and presentations are primary care physicians.

Electrotherapy for Chronic Pain: Combining Active and Passive Modalities - Amy Banks, PT, DPT and Rose Smith, PT, DPT, Med, SCS, ATC

The focus of this presentation will be on the development of a physical therapy program that may include electrotherapy and exercise. We will consider the theory that electrotherapy may be a beneficial modality in the treatment program. Evidence to support electrotherapy parameter choices will be presented. The role of the client’s medication and drug history will be considered for setting the parameters. The presentation should help the clinician identify the patient with chronic pain that may be more likely to benefit from the integration of electrotherapy and exercise. Case presentation(s) will provide an example of implementation of electrotherapy and exercise for a patient with chronic pain. Integrating best practice electrotherapy parameter choices while considering the client’s medication and drug history during an exercise program can help improve pain management.

Jim Edwards, PT, DPT

Jim Edwards serves as a Clinical Team Leader for Cleveland Clinic Rehabilitation and Sports Therapy at their Main Campus. Dr. Edwards received his doctorate from Daemen College in 2011. Jim is the coordinating therapist for the physical therapy portion of Cleveland Clinics multidisciplinary program to treat chronic headaches. His clinical interests include treating patients with orthopedic injuries, chronic pain, headaches, neck pain and back pain.
In response to the growing opioid epidemic, the Cleveland Clinic developed a multidisciplinary program to improve the function of patients suffering from chronic headaches. Traditionally, headaches have been treated exclusively with medications. While this is often helpful, in some cases, reliance on medication doesn’t resolve the headaches, and may even make them worse. Prolonged inactivity due to pain can also cause other pain problems and make it difficult to continue participation in work, social or recreational pursuits. This presentation will outline the team approach between physical therapists, neurologists, psychologists and nurses. Treatment approaches will be addressed in addition to the research behind physical therapy tests and treatments provided. The outcomes attained during the 3-week program will be provided.

LINDSEY BROWN, PT, DPT

Lindsey Brown is a PhD student at The Ohio State University and has been practicing as a part-time physical therapist since July 2016. Lindsey has worked closely with her PhD advisor, Stephanie Di Stasi, to develop the proposed presentation that is tightly linked to her PhD dissertation project. The presentation builds upon her experience in presenting outcomes for patients with non-arthritic hip disease. Lindsey has conducted extensive literature searches regarding both 1) evaluation and treatment of non-arthritic hip disease, and 2) multi- and inter-disciplinary approaches to pain and disability utilizing physical therapists.

APPLYING INTERDISCIPLINARY APPROACHES TO MANAGE PAIN AND DYSFUNCTION IN PERSONS WITH NON-ARTHRITIC HIP DISEASE- LINDSEY BROWN, PT, DPT

Persons with non-arthritic hip disease (NAHD) experience pain, mobility deficits, and movement dysfunction during activities of daily living and sport. Management of these symptoms includes combinations of intra-articular steroid injections, non-steroidal anti-inflammatory medication, and physical therapy before considering surgical options. Because people with NAHD present with abnormal movement patterns, physical therapists are critical stakeholders in the evaluation and treatment of these patients. This presentation will outline the contributing factors to pain and disability for persons with NAHD, propose an interdisciplinary approach to make patient-centered treatment decisions for optimal outcomes, and connect the audience to the current literature investigating physical therapists’ role in interdisciplinary care to manage pain across multiple populations. This presentation will address the review topic of this year’s scientific symposium by providing the audience information on evidence-based interdisciplinary approaches to pain and symptom management across various patient populations and applying those approaches to a pilot study design to improve pain and dysfunction in persons with NAHD.

JESSICA JONES, PT, DPT, CMPT

Jessica Jones, PT, DPT, CMPT is a physical therapist in the Comprehensive Pain Management Clinic at Nationwide Children’s Hospital in Columbus, Ohio. She works as part of a multi-disciplinary team that treats pediatric patients with various diagnoses, who are experiencing chronic pain. Jessica received her Doctorate of Physical Therapy degree from the University of Indianapolis and her Bachelor of Science degree from The Ohio State University. She is a board certified orthopedic manual therapist. Jessica has recently lectured on the non-pharmacological pain management of pediatric patients at Nationwide Children’s Hospital Grand Rounds.
MODIFYING PAIN SCIENCE AND THE BIOPSYCHOSOCIAL APPROACH FOR CHILDREN WITH CHRONIC PAIN - JESSICA JONES, PT, DPT, CMPT

Using pain science and a biopsychosocial approach in physical therapy is an effective alternative to opioids for adults with chronic pain. There is a large population of children who suffer from chronic pain as well. It can be difficult to teach pain science to a child or modify a treatment plan based on the child’s goals and daily activity. This session will focus on methods to modify pain science education and the biopsychosocial approach for children with chronic pain. The speaker will present important information to consider when treating a child with chronic pain and provide specific examples that will assist in the non-pharmacological treatment of these patients.

PAIN, MOBILITY AND AGING: MECHANISMS AND MANAGEMENT - MARY MILIDONIS, PT, PHD

Pain experiences in older adults are not well understood. Older adults are at increased risk for musculoskeletal and neuropathic pain disorders. Chronic pain for older adults is associated with reduced mobility, activity avoidance, increased fall risk, psychological problems and social isolation. This program will look at the mechanisms of pain, examination and management in older adults. This program will review how pain management and movement models can improve physical therapy outcomes and satisfaction. Understanding how to engage and promote adherence to pain self-management programs may improve functional outcomes for older adults with chronic pain.

MARY MILIDONIS, PT, PHD

Dr. Mary Milidonis is an Associate Professor on faculty at Cleveland State University and has presented research on pain and satisfaction with musculoskeletal physical therapy nationally. She has published on disability, expectations, satisfaction and outcomes for people with arthritis. She is engaged in research looking at the benefits of community based exercise programs for older adults. She currently teaches management of spine conditions, manual therapy and geriatric physical therapy.

HEIDI KEMPERT, PTA

Heidi Kempert is a physical therapist assistant that has worked with the Pediatric Pain Rehabilitation Program at the Cleveland Clinic Children’s Hospital for Rehabilitation for 7 years. She has worked on the inpatient team treating traditional rehab patients however her primary role is with adolescents with chronic pain. She has experience seeing kids with various types of chronic pain, chronicity of pain, and varied level of psychological involvement. Being part of a multidisciplinary team, she is able to discuss physical and occupational therapy techniques, as well as, general medical and psychological information and techniques that may be helpful to therapists in both inpatient and outpatient settings. Heidi has published three articles in Advance Physical Therapy on chronic pain treatment and outcomes in 2015. In addition, she has published two peer-reviewed articles in Archives of Physical Medicine and Rehabilitation and in the Scandinavian Journal of Pain in 2016-2017. She has presented outcomes posters at the International Symposium of Pediatric Pain Rehab and American Pain Society Conferences in 2015 and in 2016 at the Combined Sections Meeting for the APTA; and presented symposiums at the Pediatric Rehabilitation Symposium and at the Section of Pediatrics Annual Conference both in 2016.
The Good, The Bad, and The Ugly: Treatment of Complex Regional Pain Syndrome and Centralized Pain Syndromes in Pediatrics
- Heidi Kempert, PTA

This session is focused on conservative therapy treatment methods of Complex Regional Pain Syndrome. The speaker will provide brief background information about the diagnosis, treatments, and discuss specific application of techniques. Multiple treatment ideas and specific areas of focus such as range of motion, weight-bearing, sensory input, ambulation, and higher-level skills will be discussed and supported by case studies. A general recommended progression plan that has been implemented with this therapists group will also be introduced to provide some basic guidelines for a treatment plan.

LUCAS VANETTEN, PT, DPT, OCS

Lucas VanEtten, PT, DPT, OCS, is a board-certified specialist in orthopaedic rehabilitation at The Ohio State University’s Wexner Medicine Center. As a clinician, he demonstrates an interest in lower extremity rehabilitation for runners and sprinting athletes. He is certified in dry needling treatments, and has consulted with the Columbus Clippers baseball team and the Ohio Aviators professional rugby team. He was recently honored by the Ohio Physical Therapy Association as the 2015 Most Outstanding Physical Therapist. As a Clinical Outcomes Research Coordinator, Lucas has dedicated his time to projects related to rehabilitation for the lower extremity. In 2015, he was invited to speak at the Combined Sections Meeting (CSM) of the American Physical Therapy Association about rehabilitation following fractures of the femur, and was invited as a speaker and moderator for the OPTA Scientific Symposium on clinical practice guidelines. Working with Dr. Matt Briggs, he received the OPTA research grant to study the effects of dry needling on patellofemoral knee pain. This project is the first randomized clinical trial to be performed through the Physical Therapy clinic at OSU Sports Medicine.

Pain Management 2.0: An Upgrade to Our Pain Management Tools
- Lucas VanEtten, PT, DPT, OCS

Management of pain has evolved from a biological process to a biopsychosocial phenomenon. Successful management of pain requires a thorough understanding of the underlying mechanisms of pain and the transition from acute nociception to chronic, maladaptive pain. With the current push to shift away from pharmacological management of pain, it is imperative to understand how physical therapists can consciously and unconsciously influence pain.

David Griswold, PT, DPT, PhD, COMT, CIDN, is an Assistant Professor in the Department of Physical Therapy at Youngstown State University. David teaches for Integrative Dry Needling LLC and has taught 40 courses for the concept on dry needling. He has over nine years of dry needling experience and holds multiple certifications in orthopedic manual therapy with a specialization in spine care. David has a Doctorate in Physical Therapy from Youngstown State and a Ph.D in Physical Therapy from Nova Southeastern University.
KEN LEARMAN, PT, PHD, OCS, FAAOMPT

Ken Learman, PT, PhD, OCS, FAAOMPT, is a Professor of Physical Therapy at Youngstown State University where he is responsible for teaching manual therapy, patient examination and clinical reasoning, and research design and data analysis in the curriculum. Ken has been a practicing physical therapist for over 27 years and has 14 years of full-time academic experience and is currently engaged in clinical research. Ken received his BSPT at SUNY-Buffalo, his Med in Health Education at Penn State University and his PhD in Sports Medicine at the University of Pittsburgh. In addition, Ken is a board-certified specialist in orthopedic physical therapy and a fellow in the American Academy of Orthopedic Manual Physical Therapists. He is a deputy editor for the Journal of Manual and Manipulative Therapy, serves as a reviewer for over 10 other journals and has served as an external reviewer for tenure and promotion reviews. He has over 25 peer-reviewed journal publications, six book chapters and was a co-editor on an orthopedic cases text published in 2015.

VINCENT RAGOZINE, PT

Dr. Vincent Ragozine has practiced physical therapy for 7 years in the outpatient and home health setting, and currently serves as a lead clinician and clinical manager for TuDor Physical Therapy Centers in Youngstown, Ohio. He has previously taught classes in Anatomy/Physiology and Nutrition for Eastern Gateway Community College.

WEIQING GE, PT, DPT, PHD

Weiqing Ge, DPT, PhD, is a licensed PT, He has over 20 years of experience in biomedical research. He has published papers on mechanoreceptors and nociceptors in prestigious scientific journals such as The Spine Journal, Journal of Applied Physiology, Journal of Physiology, and Journal of Neurophysiology. Weiqing Ge is an Associate Professor of Physical Therapy at Doctor of Physical Therapy Program at Youngstown State University. He has been teaching in DPT program for over 10 years. He taught education session at Ohio Physical Therapy Association Annual conference in the past. He also taught continue education courses in the US and China.

RANDOMIZED CLINICAL TRIAL COMPARING THE USE OF DRY NEEDLING TO NON-THRUST MOBILIZATIONS FOR PATIENTS WITH MECHANICAL LOW BACK PAIN

- DAVID GRISWOLD, PT, DPT, PHD, COMT, CMT, CIDN; KEN LEARMAN, PT, PHD, OCS, FAAOMPT

Low back pain (LBP) is the most common cause of musculoskeletal pain. Over 2% of the U.S. population regularly use opioid medications and half of those patients suffer from chronic low back pain. Dry needling (DN) is becoming widely used by Physical Therapists for many neuromuscular conditions including LBP. The purpose of this presentation will be to disseminate the design and results of a randomized clinical trial that included patients with LBP where the clinical effect of DN was compared to non-thrust mobilizations (NTM). Statistical analyses will be presented along with results and interpretation of the analyses. Suggestions for future research will also be discussed.
Cupping Therapy in Treating Plantar Fasciitis

Description: Adult heel pain is usually caused by plantar fasciitis, the most common foot condition. Plantar fasciitis affects millions of Americans annually. Economic costs relating to the treatment of plantar fasciitis have been estimated to range from $192 to $376 million per year. Because the chronic degeneration healing mechanism is poorly understood, treatment of plantar fasciitis is often difficult. Cupping therapy has recently gained the attention at the Rio Olympics. Although cupping therapy has been performed in most cultures historically, it is mostly believed to be primarily used in Asian countries for thousands of years. Cupping therapy involves creating a vacuum inside a cup positioned over the surface of the skin, using the local negative pressure to promote blood flow. Several Systematic Reviews (SRs) of randomized clinical trials (RCTs) have been conducted to determine the effectiveness of cupping therapy in treating pain, hypertension, and stroke. Dry cupping, a form of cupping therapy, has been demonstrated as a low-cost alternative to treat plantar fasciitis in a recent RCT. The course will introduce the application of dry cupping in treating plantar fasciitis. This course has been designed to bridge the gap between contemporary rehabilitation and the ancient manual technique for managing plantar fasciitis.
- 3 Platform Presentations

Menstrual Function Not Related to Clinical Outcomes in Females After Acute Spondylolysis: An Observational Analysis

**MARY VICARY, PT, DPT**

**Researchers:**

**MITCHELL SELHORST, PT, DPT, OCS**

Can a Self-Mobilization of the Glenohumeral Joint Duplicate the Movement of the Humeral Head During Manual Mobilization?

**LIZANNE MULLIGAN, PT, PHD**

**Researchers:**

**DEXTER WITT, PT, DPT, DHS, OCS**

**NANCY TALBOT, PT, PHD, RMSK**

**KAITLYN BRAUNIG, PT, DPT**

**LOGAN SIEMER, PT, DPT**

Evaluation of a Sequential Cognitive and Physical Treatment Approach for Patients with Patellofemoral Pain: A Randomized Controlled Trial

**MITCHELL SELHORST, PT, DPT, OCS**

**Researchers:**

**TODD DEGENHART, PT**

**MICHAEL JACKOWSKI, PT, MPT**

**WILLIAM RICE, PT, MPT**

**SHAUN COFFMAN, PT, DPT**
- POSTER PRESENTATIONS -

The effects of hip-targeted physical therapy interventions on low back pain: A systematic review and meta-analysis

Parental Perception of Child's Fitness Status Compared to Measured FITNESSGRAM and BMI Scores

What is the perception and utilization of manual therapy in older adults for the spine? A survey of Ohio physical therapists

Medial Elbow Joint Space Assessment During Shoulder ER and IR in Various Forearm Positions Using MSK US

Differences in Interlimb Performance During a Repetitive Step Test in Older Adults

Transition from PTA to PT: Motivating Factors for Pursuing Additional Professional Development

Transition from PTA to PT: Potential Barriers to Pursuing Additional Professional Education

Self-Selected Goals in the Treatment of Pain: A single Case Report

What interventions are best for individuals with Parkinson disease: A systematic review of tango

Functional outcome measure scores predict discharge destination in patients with stroke: a systematic review and meta-analysis

Transformational Chronic Back Pain Care - a PNE Multidisciplinary Approach

Application of Downhill Body Weight Supported Treadmill Training to Improve Gait in a Patient with Chronic Stroke and Cognitive Deficits: A Case Report

A Multimodal Approach to Differential Diagnosis and Treatment of Left Sided Sciatica in a 31 Year-old Female: A Case Report

The Effects of Yoga on Balance, Strength, Flexibility, and Mindfulness in Typical Children Ages 4-9 Years

Comparison of Muscular Activity in Western Riders During High Level Equine Activities

The effects of hip-targeted physical therapy interventions on low back pain: A systematic review and meta-analysis

Polyomyalgia Rheumatica as a Differential Diagnosis in a Patient with Neck Pain
Dynamic balance deficits among people who are middle-aged with chronic low back pain

Defining Concepts in Modern Manual Therapy: Special Interest Paper

Changes in Insulin Sensitivity and Maximal Aerobic Capacity In Response to 7-day Physical Inactivity

Lower Trapezius and Thoracic Paraspinal Muscle Activity During Scapular Stabilization Exercises in an Unsupported Trunk Position

Manipulation and exercise for treatment of chronic migraine as alternative interventions for patients previously prescribed opioid analgesics - A case study

In Vivo Measurement of Movement During Distraction Mobilizations of the Metacarpophalangeal Joint

Alterations in Force Distribution During Bridging Exercises: Effects of Single Versus Double Leg Support

An Alternative Model of Care for the Treatment of Adolescent Athletes with Low Back Pain: A Feasibility Study

The Prevalence of Spondylolysis in Symptomatic Adolescent Athletes: An Assessment of Sport Risk in Non-Elite Athletes

Effects of Task Requirements on Choice of Upper Extremity Use in Subjects Chronic Post-stroke

Altered Gait Kinetics in Persons with Moderate-Severe Chondropathy Following Arthroscopy for Femoroacetabular Impingement Syndrome

The Effects of Fear Avoidance Behaviors on Anterior Knee Pain and Physical Therapy Visit Count for Pediatric Patients