



**MADONNA  
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**Education**

Ph.D. Biokinesiology (2003). University of Southern California, Los Angeles, CA  
B.S. Physical Therapy (1986). State University of New York at Buffalo, Buffalo, NY

**Patents**

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**Book**

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## **SELECTED ABSTRACTS**

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## **SELECTED WORKSHOPS AND INVITED PROFESSIONAL PRESENTATIONS**

Burnfield JM. ICARE: An integrated approach for addressing gait, cardiorespiratory, balance and upper extremity rehabilitation goals. *Ability KC*. Kansas City, MO. November 20, 2019.

Burnfield JM. Observational gait analysis: How knowledge of the fundamentals can enhance patient outcomes. *Clinical Doctorate in Physical Therapy Program, University of South Dakota*. Vermillion, SD. November 1, 2019 (one day course).

Burnfield JM. Translational PM&R research (Part 1 Quantitative research design). *Presentation to UNMC PM&R residents, Madonna-Omaha*, September 6, 2019.

Burnfield JM. Physical Rehabilitation and Engineering: A Mission-Driven Collaboration. *Electrical and Computer Engineering, University of Nebraska – Lincoln*. Presented October 16, 2015.

Burnfield JM. ICARE: A Tool for Comprehensive and Intensive Gait and Cardiovascular Training. *Casa Colina Hospital and Centers for Healthcare*. Presented September 18, 2015.

Burnfield JM. Development and Implementation of the ICARE for Use in Rehabilitation and Fitness. TIRR Memorial Hermann Rehabilitation and Research Center. Presented May 11, 2015.

Goldman AJ, Burnfield JM. Stroke Rehabilitation: Is it Time to Expand the Stroke Recovery Window? Nebraska Stroke Symposium, Lincoln, NE. Presented April 10, 2015.

Burnfield JM. Nebraska Athletic Performance Lab, UNL & Research Institute, Madonna Rehabilitation Hospital. DOD Joint Biomechanical Modeling and Simulation Workshop, Arlington, VA. August 28-29, 2014.

Burnfield JM. Health and Wellness Programming. 2014 Neurologic Physical Therapy Professional Education Consortium. University of Southern California Webinar Series. Presented December 2014, December 2013, December 2012.

Burnfield JM. Observational Gait Analysis: How Knowledge of the Fundamentals Can Enhance Patient Outcomes. Clinical Doctorate in Physical Therapy Program, University of South Dakota. Vermillion, SD. Presented November 2014; Presented November 2013; November 2012; November 2011; October 2010; October 2009; October 2008; October 2007; November 2006 (one day course).

McCrary B, Burnfield JM, Meza JL, Darragh AR, Irons SL. (2014). The impact of patient lifts on work injuries among physical rehabilitation therapists in Nebraska. Public Health Association of Nebraska 2014 Annual Conference, October 8-9, 2014, Grand Island, NE, USA.

Burnfield JM. Patient Centered Technology for Rehabilitation. Invited Branch Lecturer for 2013. Duke University School of Medicine, Department of Community and Family Medicine, Doctor of Physical Therapy Division. Presented May 6, 2013.

Burnfield JM. Transcranial Doppler (TCD) Opportunities for Collaborative Research and Development within Physical Rehabilitation. Department of Biological Systems Engineering, University of Nebraska Lincoln. Lincoln, NE. Presented April 15, 2013.

Burnfield JM. ICARE Training to Improve Walking and Cardiovascular Fitness for Individuals Living with Physical Disabilities and Chronic Conditions. Quality Living Incorporated. Omaha, NE. Presented April 10, 2013.

Burnfield JM. Health and Wellness Programming. 2012 Neurologic Physical Therapy Professional Education Consortium. University of Southern California Webinar Series. Presented December 4, 2012.

Burnfield JM. Emerging Technologies for Physical Rehabilitation Across the Continuum of Care: Engaging the PT Community to Guide Development. Eastern District of the Nebraska Physical Therapy Association. Presented November 29, 2012.

Burnfield JM. Observational Gait Analysis: How Knowledge of the Fundamentals Can Enhance Patient Outcomes. Clinical Doctorate in Physical Therapy Program, University of South Dakota. Vermillion, SD. Presented November 2012; November 2011; October 2010; October 2009;

October 2008; October 2007; November 2006 (one day course).

Burnfield JM. ICARE Training to Improve Walking and Cardiovascular Fitness for Individuals Living with Physical Disabilities and Chronic Conditions. Marionjoy Rehabilitation Hospital. Wheaton, IL. Presented April 24-25, 2012.

Burnfield JM. ICARE Training to Improve Walking and Cardiovascular Fitness for Individuals Living with Physical Disabilities and Chronic Conditions. Hospital for Special Care. New Britain, CT. Presented April 2-3, 2012.

Burnfield JM. Partial Body Weight Supported Treadmill Training: Biomechanical Risks and Rewards. Twelfth Annual Safe Patient Handling and Movement Conference. Orlando, FL. Presented March 31, 2012.

Burnfield JM. ICARE Training to Improve Walking and Cardiovascular Fitness for Individuals Living with Physical Disabilities and Chronic Conditions. JFK Johnson Rehabilitation Institute. Edison, NJ. Presented March 26-27, 2012.

Billinger S, Burnfield JM, Scheets P. Action Potential: How and Why to Get Involved with the Neurology Section! Combined Sections Meeting of the American Physical Therapy Association. Chicago, IL. Presented February 10, 2012.

Burnfield JM. Observational Gait Analysis – Enhancing Patient Outcomes by Focusing on the Fundamentals. Clinical Doctorate in Physical Therapy Program, Creighton University. Omaha, NE. Presented July 2011; June 2010; June 2009; June 2008; June 2007 (two, half day seminars each year).

Burnfield JM. Developing affordable adaptations to increase access, safety and use of exercise equipment for individuals with physical disabilities and chronic conditions (1.5 hour short course). Rehabilitation Engineering and Assistive Technology Society of North America's 2011 Annual Conference. Toronto, Ontario, Canada. Presented, June 6, 2011.

Burnfield JM, Nordness A, Murtagh B. Rehabilitation of non-accidental traumatic brain injury in children. Treatment and Rehabilitation of the Pediatric Trauma Patient, Fifth Annual Trauma Conference. Omaha, NE. Presented May 6, 2011.

Burnfield JM. Therapeutic Management of Gait Dysfunction: Integrating Observation, Clinical Evaluation, and Biomechanical Research to Guide Evidence-Based Practice [1 day workshop]. Sponsored by School of Physical Therapy, University of the Incarnate Word, Central District, Texas Physical Therapy Association, and the Military Performance Lab, Center for the Intrepid – DOR – BAMC. San Antonio, TX. Presented April 16, 2011.

Burnfield JM. Enhancing walking and cardiovascular fitness following a brain injury: Evidenced-based approaches for use in the rehabilitation setting and community. 2011 Brain Injury Association of Kansas and Greater KC's Beyond Rehab: Succeeding at Life – A Conference of Brain Injury. Overland Park, KS. Presented March 31, 2011.

Burnfield JM. Partial Body Weight Supported Treadmill Training: Biomechanical Risks and Rewards. Eleventh Annual Safe Patient Handling and Movement Conference. Lake Buena

Vista, FL. Presented March 30, 2011.

Burnfield JM. Therapeutic Management of Gait Dysfunction: Integrating Observation, Clinical Evaluation, and Biomechanical Research to Guide Evidence-Based Practice [2 day workshop]. Husson University, Department of Physical Therapy and Maine Coast Memorial Hospital. Bangor, Maine. Presented March 19-20, 2011.

Burnfield JM, Salisbury M, Spellman C, Buster TW. Promoting Optimal Walking and Community Engagement in Those Living with Multiple Sclerosis. Nebraska TREND Symposium 2011. Lincoln, NE. Presented March 12, 2011.

Burnfield JM. Rehabilitation of Gait Dysfunction: Integrating Observation, Clinical Evaluation, and Biomechanical Research to Guide Evidence-Based Practice [1 day workshop]. Wisconsin's West Central District Physical Therapy Association. LaCrosse, WS. Presented February 18, 2011.

Burnfield JM. Promoting safe and effective exercise, walking and transfer opportunities in individuals with limited mobility. Physical Therapy Program, University of Wisconsin. La Crosse, WS. Presented February 17, 2011.

Burnfield JM. Therapeutic management of neurologic gait dysfunction: Integrating observation, clinical evaluation, and biomechanical research to guide evidence-based practice [workshop]. 2011 Combined Sections Meeting of the American Physical Therapy Association, Neurology Section. New Orleans, LA. Presented February 8-9, 2011.

Burnfield JM. Gait Analysis: From Research to Reality, The Enduring Legacy of Dr. Jacquelin Perry. 2011 Hanger Education Fair. Reno, NV. Presented February 4, 2011.

Burnfield JM. Enhancing walking and cardiovascular fitness following a brain injury: Evidenced-based approaches for use in the rehabilitation setting and community. 2011 Brain Injury Association of Greater Kansas City Conference. Kansas City, KS. To be presented March 31, 2011.

Burnfield JM. Therapeutic Management of Gait Dysfunction: Integrating Observation, Clinical Evaluation, and Biomechanical Research to Guide Evidence-Based Practice [2 day workshop]. To be Presented, Husson University, Department of Physical Therapy and Maine Coast Memorial Hospital. Bangor, Maine. March 19-20, 2011.

Burnfield JM. Therapeutic management of neurologic gait dysfunction: Integrating observation, clinical evaluation, and biomechanical research to guide evidence-based practice [workshop]. 2011 Combined Sections Meeting of the American Physical Therapy Association, Neurology Section. To be presented February 8-9, 2011

Burnfield JM. Enhancing rehabilitation outcomes of individuals with an orthosis: Applying observational gait analysis. Orthotics Specialists, Inc. Phoenix AZ. Presented November 5-6, 2010.

Burnfield JM. ICARE: An Affordable Technology Designed to Promote Walking and Cardiovascular Fitness During Rehabilitation and Following Discharge. Presented, 8th Annual Medical Rehabilitation Providers Association Educational Conference. New Orleans, LA. October 14, 2010.



Burnfield JM. Developing ICARE, an Intelligently Controlled Assistive Rehabilitation Elliptical Training System to Help Individuals with Physical Disabilities and Chronic Conditions Improve Walking and Cardiovascular Fitness. Entrepreneurial Management, College of Business Administration, University of Nebraska-Lincoln. Lincoln, NE. September 16, 2010.

Burnfield JM. Observational Gait Analysis – Enhancing Patient Outcomes by Focusing on the Fundamentals. Clinical Doctorate in Physical Therapy Program, Creighton University. Omaha, NE. Presented June 2010; June 2009; June 2008; June 2007 (two, half day seminars each year).

Burnfield JM. Development of the ICARE Trainer to Promote Gait and Cardiovascular Fitness in Individuals with Physical Disabilities. Rancho Los Amigos National Rehabilitation Center. Downey, CA. May 27, 2010.

Burnfield JM. Patient-Centered Rehabilitation Research. Capital City Kiwanis. Lincoln, NE. May 18, 2010.

Burnfield JM. Rehabilitation of persons with lower extremity amputations: An emphasis on optimizing walking function. VIIIème Journée Scientifique des Infirmières. Grace Children's Hospital and International Child Care. Port-au-Prince, Haiti. April 27, 2010.

Burnfield JM. Ergonomics in Health Care: Biomechanical Considerations. Wisconsin Physical Therapy Association. Green Bay, WI. April 15, 2010.

Burnfield JM. Biomechanical Demands of Transfer and Gait Activities: Promoting Clinician Safety and Therapeutic Patient Outcomes. Tenth Annual Safe Patient Handling and Movement Conference. Lake Buena Vista, FL. March 31, 2010.

Burnfield JM. Integrating Biomechanics to Guide Management of Upper and Lower Extremity Dysfunction: Emerging Interventions for Individuals with Neurological Involvement [2 hour short course]. Presented, 2010 Annual Combined Sections Meeting of the American Physical Therapy Association. San Diego, CA. February 2010.

Burnfield JM. Observational Gait Analysis: How Knowledge of the Fundamentals Can Enhance Patient Outcomes. Clinical Doctorate in Physical Therapy Program, University of South Dakota. Vermillion, SD. October 2009, October 2008, October 2007, November 2006 (one day course).

Burnfield JM. Observational Gait Analysis Enhancing Patient Outcomes by Focusing on the Fundamentals. Clinical Doctorate in Physical Therapy Program, Creighton University. Omaha, NE. June 2009, June 2008, June 2007 (one day seminar).

Burnfield JM. Applied Observational Gait Analysis: A Systematic, Evidence Based Approach to Enhance Patient Outcomes. Kansas American Physical Therapy Association's Annual Meeting. Wichita, KS. April 3-4, 2009.

Burnfield JM. Device Assisted Sit-to-Stand Movements: A Comparison of Joint Motions and Muscle Demands to Traditional Movements. Presented, Ninth Annual Safe Patient Handling

and Movement Conference. Lake Buena Vista, FL. April 2009.

Burnfield JM. Management of the Diabetic Foot. Clinical Doctorate in Physical Therapy Program, University of Nebraska Medical Center. Omaha, NE. April 2009; April 2008; April 2007; May 2006.

Burnfield JM. Promoting physical fitness from acute care to the community: When just walking isn't an option. American Physical Therapy Association's 2008 Annual Conference and Exposition. San Antonio, TX. June 2008 (3 hour course).

Burnfield JM. Updated Guidelines for the George Blanton Research Grant Basic Strategies for Designing a Strong Clinical Study. Nebraska Physical Therapy Association Annual Meeting. Lincoln, NE. October 2007.

Burnfield JM. Observational Gait Analysis A Systematic, Evidence-based Approach. Creighton University. Omaha, NE. July 2007 (one day course for clinicians from across the United States).

Burnfield JM. Gait Analysis: Applications for Guiding Clinical Case Study Development. Evangelischen Krankenhaus Dusseldorf, Germany. May 2007 (three day course).

Burnfield JM. Rehabilitation of Persons with Lower Extremity Amputations: An Emphasis of Optimizing Walking Function. Menorah Medical Center. Kansas City, MO. October 2006 (one day course).

Burnfield JM. Observational Gait Analysis: Refining Knowledge and Skills to Enhance Patient Outcomes. Nebraska Chapter of the American Physical Therapy Association Annual Meeting. Lincoln, NE. September, 2005.

Burnfield JM. Applied observational gait analysis: Enhancing rehabilitation outcomes of persons with an orthosis or prosthesis. Havasu Orthotics and Prosthetics. Lake Havasu City, AZ. March, 2005.

Burnfield JM. Clinical research: Fall prevention interventions for the older adult. Institute for Rehabilitation and Science Engineering, Madonna Rehabilitation Hospital. Lincoln, NE. February, 2004.

Burnfield JM. Human and environmental factors contributing to slips during walking. Creighton University, Department of Physical Therapy. Omaha, NE. November, 2003

Burnfield JM. Predicting utilized coefficient of friction during gait: Is it possible? American Society of Testing and Materials International Committee F13 (Pedestrian / Walkway Safety and Footwear) Symposium on Human Ambulation Factors in Slip and Fall Events. Pasadena, CA. June, 2003.

Burnfield JM. Relationship between utilized and available coefficient of friction in predicting slip events during gait. American Society of Testing and Materials International Committee F13 (Pedestrian / Walkway Safety and Footwear) Symposium on Human Ambulation Factors in Slip and Fall Events. Pasadena, CA. June, 2003.

Burnfield JM. Gait Analysis using the Rancho Observational Gait Analysis System (Ganganalyse nach Rancho Los Amigos Medical Center Aufbaukurs Ganganalyse). Evangelischen

Krankenhaus Dusseldorf, Germany. October, 2002.

Burnfield JM. Neurologic Gait Analysis. Casa Colina Rehabilitation Facility. Pomona, California. September, 2002 (two day course).

Burnfield JM. Observational Gait Analysis: The Rancho Method. Board of the Canadian Physiotherapy Association Manitoba Branch. Winnipeg, Manitoba, Canada. May, 2002.

Burnfield JM. Slip events during walking: Biomechanical considerations. School of Medical Rehabilitation, University of Manitoba. Winnipeg, Manitoba, Canada. May, 2002.

Burnfield JM. Biomechanical factors associated with slips and falls in gait. Board of the Association of Rehabilitation Medicine of Manitoba. Winnipeg, Manitoba, Canada. May, 2002.

Burnfield JM. Gait Assessment in the Elderly. Falls Prevention and Management in Older Persons Conference, sponsored by the Geriatric Research Education and Clinical Center. Marina Del Rey, CA. September, 2000.

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