

Monica R. Maly

Curriculum Vitae

Educational Background

- Post-Doctorate (2005-2006) *What Matters Most to People with Knee Problems*
University of Toronto & Arthritis Community Research and Evaluation Unit
Advisors: Cheryl A. Cott, Elizabeth M. Badley
Funding: CIHR Post-Doctoral Fellowship & Arthritis Research Centre of Canada Post-Doctoral Fellowship (1 year)
- Doctor of Philosophy (2000-2005) *Mobility in People with Knee Osteoarthritis.*
Queen's University, School of Rehabilitation Therapy
Comprehensive Completed with Distinction (2002).
Advisor: Patrick A. Costigan
Funding: NSERC (2 years) & Toronto Rehabilitation Institute (3 years)
- Master's of Science (1998-2000) *Biomechanics of Foot Orthoses in People with Medial Compartment Knee Osteoarthritis.*
Queen's University, School of Rehabilitation Therapy
Advisor: Elsie G. Culham
Funding: NSERC (2 years)
- Bachelor of Science (Honours), Physical Therapy (1994-1998) Honours project "*Receptor-Mediated Hemodynamic and Metabolic Responses to Endothelin-1 in Canine Small Intestine In Vivo.*" Queen's University, School of Rehabilitation Therapy
Advisor: Cheryl King-VanVlack

Current Status

Assistant Professor, School of Rehabilitation Science, Faculty of Health Sciences, McMaster University (since 2008).

Adjunct Appointments

1. School of Physical Therapy, Faculty of Health Sciences, University of Western Ontario (since 2006).
2. Department of Kinesiology, Faculty of Applied Health Sciences, University of Waterloo (since 2007).

Affiliate Scientist, Arthritis Research Community Evaluation Unit, Toronto Western Hospital Research Institute.

Professional Organization Memberships

Ontario College of Physiotherapy (#10120)
Canadian/Ontario Physiotherapy Association (#26911)
Canadian Society for Biomechanics (#00-218)
International Society for Biomechanics (#3356)

Osteoarthritis Research Society International (#629508)

Employment History

Academic

1. **Assistant Professor**, School of Physical Therapy, Faculty of Health Sciences, The University of Western Ontario (2006-2008).
2. **Canadian Institutes of Health Research & Arthritis Research Centre of Canada Post-Doctoral Fellow**, Arthritis Community Research & Evaluation Unit, Toronto Western Hospital and Population Health Division, University of Toronto (2005-2006).
3. **Assistant Professor (Rehabilitation)**, School of Kinesiology & Health Science, Faculty of Science & Engineering, York University (2005).
4. **Research Associate**, Human Mobility Research Centre, Department of Surgery, Kingston General Hospital (2002-2004).
5. **Research Associate**, Clinical Mechanics Group, Department of Surgery, Kingston General Hospital (1999-2000).
6. **Research Assistant**, Department of Physiology, Queen's University (1997). In vivo investigation of vasoconstrictor protein in canine gut. Responsibilities included canine surgical preparation, outcome measurement and data analysis.

Clinical

7. **Physiotherapist** (part-time, permanent), Providence Continuing Care Centre, St. Mary's of the Lake Hospital Site (1998-2004). Clientele: musculoskeletal and lymphedema. Responsible for direct patient care and supervision of physical therapy students.
8. **Physiotherapist** (full-time, casual), Providence Continuing Care Centre, St. Mary's of the Lake Hospital site (1998). Clientele: injured workers. Responsible for direct patient care of Community Clinic Program participants of Workplace Safety and Insurance Board claims.
9. **Assistant Health Educator**, Queen's University Student Health (1997-1998). Responsible for conducting focus groups and facilitating workshops on stress management and health promotion (body image & eating disorders, drug & alcohol consumption sexual health).

Scholarly and Professional Activities

Journal Referee

Archives of Physical Medicine and Rehabilitation (5)

Arthritis Care and Research (8)

Clinical Biomechanics (4)

Journal of Aging and Physical Activity (1)

Journal of Biomechanics (1)

Journal of Clinical Rheumatology (1)

Journal of Orthopaedic Research (1)

Journal of Rheumatology (1)

Osteoarthritis and Cartilage (1)

Grant Reviewer

1. Scientific Advisory Panel Member, Centre for Research Expertise in the Prevention of Musculoskeletal Disorders grant program (2008-2009)
2. External Reviewer, National Medical Research Council of Singapore Research Grants program (2007)
3. Committee Member, Review Panel for Canadian Institutes for Health Research, Mobility in Aging Request for Applications (2005-2006)

Areas of Interest

Knee osteoarthritis, biomechanics, gait analysis, accelerometry, qualitative research, disability

Fellowships, Scholarships & Awards

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| 1. President's Award for innovative theoretical or laboratory research, sponsored by the American Society for Biomechanics | \$500 | 2009 |
| 2. Award of Excellence in Teaching (Kinesiology), University of Western Ontario | Gift | 2008 |
| 3. Constance Beattie Award sponsored by the Physiotherapy Foundation of Canada | 1,000 | 2007 |
| 4. Audrey Trudeau Memorial Award (for Doctoral-Post-Doctoral Research presentation) sponsored by the Physiotherapy Foundation of Canada | 500 | 2006 |
| 5. Canadian Institutes for Health Research Post-Doctoral Fellowship | 55,000 | 2005-2006 |
| 6. Post-Doctoral Fellowship Award, Arthritis Research Centre | 8,334 | 2005-2006 |
| 7. Doctoral Studentship Award sponsored by the Provincial Rehabilitation Research Program at the Toronto Rehabilitation Institute and Ministry of Health Ontario | 61,500 | 2002-2005 |
| 8. Tracey Gourlay Memorial Fellowship | 300 | 2002-2003 |
| 9. Graduate Award sponsored by Queen's University | (1,000) | Declined |
| 10. Ontario Graduate Scholarship sponsored by the Ontario Ministry of Education | (15,000) | Declined |
| 11. Tracey Gourlay Memorial Fellowship | 300 | 2001-2002 |
| 12. Post-Graduate Scholarship-B Award sponsored by the Natural Science & Engineering Research Council of Canada | 38,200 | 2000-2002 |
| 13. Graduate Award sponsored by Queen's University | 555 | 2000-2001 |
| 14. Ontario Graduate Scholarship sponsored by the Ontario Ministry of Education | (15,000) | Declined |
| 15. Post-Graduate Scholarship-A Award sponsored by the Natural Science & Engineering Research Council of Canada | 31,400 | 1998-2000 |

16. Ontario Graduate Scholarship sponsored by the Ontario Ministry of Education	(11,859)	Declined
17. Graduate Award sponsored by Queen's University	5,000	1998-1999
18. Ann Whitmore Memorial Finalist sponsored by the Physiotherapy Foundation of Canada	300	1998
19. Student Excellence Award sponsored by the Canadian Physiotherapy Cardio-Respiratory Society	60	1998
20. Appeal Scholarship sponsored by Queen's University	500	1997-1998
21. Dean's Special Award sponsored by Queen's University	500	1996-1997
22. Anniversary Scholarship sponsored by Queen's University	4,500	1994-1995
23. Prudence Austin Scholarship sponsored by the Haldimand-Norfolk, Ontario Chapter of Queen's University Alumni	500	1994-1995
24. Carter Scholarship	60	1994-1995
25. Robert C. Edmonds Memorial Award	100	1994-1995
26. Canadian Federation of University Women Scholarship sponsored by the CFUW	275	1994-1995
27. Carol Kinnear Memorial Scholarship	400	1994-1995
28. N. A. Taylor Scholarship	500	1994-1995
29. Delhi District Secondary Memorial Award sponsored by the faculty of Delhi District Secondary School, Ontario	500	1994-1995
30. Governor General's Bronze Medal sponsored by the Canadian Governor General's office	Gift	1994
31. Volunteer Award sponsored by the TD Bank-Simcoe Reformer newspaper in Haldimand-Norfolk County, Ontario	Gift	1994

Awards of Distinction Obtained by Graduate Students

32. Shawn Robbins (PhD Candidate): Doctoral Award sponsored by the Canadian Society for Biomechanics	\$150	2010
33. Jennifer Wood (MSc): Second Place in poster competition sponsored by Mercury Blueprinting	Gift	2008
34. Michelle O'Brien, Rumi Takeuchi, Kelly Ormond, Steven Brown (MPT): Constance Beattie Memorial Award sponsored by the Physiotherapy Foundation of Canada	\$350	2007

Teaching

Courses

Course Coordination & Instruction

McMaster University

1. Unit 1 Problem Based Learning Tutorials (2009), School of Rehabilitation Sciences, Physical Therapy (62 students). Course Coordinator. Student Teaching Evaluation: 8.80 ± 0.90/ 10.00; Tutor Coordination Evaluation 9.00/10
2. Unit 1 Problem Based Learning Tutorials (2009), School of Rehabilitation Sciences, Physical Therapy (6 students). Tutor. Teaching Evaluation: 10.00 ± 0.00/ 10.00.
3. Unit 2 Anatomy Resource Sessions (2009), School of Rehabilitation Sciences, Physical Therapy (65 students). Anatomy Resource Session. Teaching Evaluation: 8.70 ± 1.50 / 10.00.
4. Unit 1 Problem Based Learning Tutorials (2008), School of Rehabilitation Sciences, Physical Therapy (5 students). Tutor-in-training. Teaching Evaluation: 9.3 ± 0.50 / 10.

University of Western Ontario

5. KIN 473: *Clinical Biomechanics* (2008), School of Kinesiology, The University of Western Ontario (12 students). Responsible for course development, disseminating course content (functional anatomy, tissue mechanics, neuro-musculoskeletal pathology), written and oral evaluation. Teaching Evaluation: 6.60 ± 0.50 / 7.00 **Received Award of Excellence in Teaching (Kinesiology)**.
6. PT 510: *Professional Issues* (2007), School of Physical Therapy, The University of Western Ontario (49 entry-to-practice students). Responsible for disseminating course content, clinical job shadowing assignments, written and clinical skills evaluation, teaching assistant supervision. Teaching Evaluation: 5.80 ± 0.90 / 7.00

York University

7. AS/SC KINE 3030: *Introduction to the Biomechanics of Human Movement* (2005), School of Kinesiology & Health Science, York University (360 undergraduates). Responsible for disseminating course content, written evaluation and teaching assistant supervision. Teaching Evaluation: 4.65 ± 0.60 / 5.00 (section A) & 4.65 ± 0.54 / 5.00 (section B)

Queen's University

8. PT 419 *Advanced Manual Therapy* (2003), School of Rehabilitation Therapy, Queen's University (45 entry-to-practice students). Coordinated teaching and laboratory supervision responsibilities amongst expert physical therapists in the community. Responsible for written and clinical (Objective Structured Clinical Examination) evaluation. Teaching Evaluation: none.
9. PT 215 *Musculoskeletal Management I* (2002), School of Rehabilitation Therapy, Queen's University (50 entry-to-practice students). Coordinated teaching and laboratory supervision responsibilities amongst expert physical therapists in community. Responsible for course content using problem-based learning approach, written and clinical (Objective Structured Clinical Examination) evaluation and teaching assistant supervision. Teaching Evaluation: 4.60 ± 0.61 / 5.00.
10. RHBS 321: *Fundamentals of Motor Performance I* (2000, 2001), School of Rehabilitation Therapy, Queen's University (90 and 77 entry-to-practice students). Responsible for course

development, disseminating course content, written evaluation and teaching assistant supervision. Included problem-based learning assignments in 2001. Teaching Evaluation: $4.50 \pm 0.58 / 5.00$ (2000) and $4.00 \pm 0.86 / 5.00$ (2001).

Course Instruction

University of Western Ontario

1. PT 511 & 512: *Foundations in Physical Therapy I & II* (2006, 2007), School of Physical Therapy, University of Western Ontario (45-49 entry-to-practice students). Responsible for disseminating course content (biomechanical principles, gait, muscle, physical agents, electrical modalities,), written and clinical (Objective Structured Clinical Examination) evaluation and teaching assistant supervision. Problem-based assignments included in modalities section. Teaching Evaluation: 5.60 ± 1.00 and $5.80 \pm 1.00 / 7.00$ (2006); 5.60 ± 0.90 and $5.90 \pm 0.80 / 7.00$ (2007).
2. PT 521: *Musculoskeletal Assessment* (2007), School of Physical Therapy, University of Western Ontario (45 entry-to-practice students). Responsible for laboratory instruction. Teaching Evaluation: $5.00 \pm 1.00 / 7.00$.

Queen's University

3. RHBS 322: *Fundamentals of Motor Performance II* (2004), School of Rehabilitation Therapy, Queen's University (45 entry-to-practice students). Responsible for disseminating course content (balance, posture, mobility) and written evaluation. Teaching Evaluation: $4.00 \pm 0.95 / 5.00$.
4. PHGY 350: *Pathophysiology* (2002, 2003), Department of Physiology, Queen's University (336, 354 nursing & life science students). Responsible for disseminating course content (musculoskeletal section) and written evaluation. Teaching Evaluation: none.
5. *The Mushkegowuk Territory Community Rehabilitation Aides Project* (2002), Weeneebayko Health Ahtuskaywin & School of Rehabilitation Therapy, Queen's University (6 weeks, 1 week on-site Fort Albany, 6 students). Responsible for course development and disseminating course content (physical disability) for a training program implemented by Queen's University for Aboriginals in Mushkegowuk Territory (James Bay region of Ontario). Problem-based learning approach for entire training program. Teaching Evaluation: none.
6. RHBS 322: *Fundamentals of Motor Performance II* (2002), School of Rehabilitation Therapy, Queen's University (90 entry-to-practice students). Responsible for disseminating course content (mobility) and written evaluation. Teaching Evaluation: none.

Invited Lectures

McMaster University

1. Unit 2 Professional Issues: Gait Analysis (2010), School of Rehabilitation Sciences, McMaster University (62 physical therapy students).

2. RS 701: *Analysis and Rehabilitation of Functional Movement* (2009), School of Rehabilitation Sciences, McMaster University (5 graduate students). Topic: Biomechanics and knee osteoarthritis. Teaching Evaluation: 8.00 ± 0.90 / 10.00.

Queen's University

3. RHBS 832: *Qualitative Research Methods* (2004), School of Rehabilitation Therapy, Queen's University (12 graduate students). Topic: mixing methodology.
4. RHBS 874: *Issues in Aging* (2004), School of Rehabilitation Therapy, Queen's University (8 graduate students). Topic: osteoarthritis.
5. RHBS 801: *Motor Performance* (2003), School of Rehabilitation Therapy, Queen's University (9 graduate students). Topic: muscle mechanics (lecture and laboratory).
6. RHBS 801: *Motor Performance* (2000), School of Rehabilitation Therapy, Queen's University (6 graduate students). Topic: ambulatory mechanics.

Teaching Assistantships

Queen's University

1. PT 417: *Advanced Manual Therapy* (2000, 2003), School of Rehabilitation Therapy, Queen's University. Responsible for organizing course materials, instructors and written and clinical (Objective Structured Clinical Examination) evaluation.
2. RHBS 214: *Research Methods* (2002), School of Rehabilitation Therapy, Queen's University. Responsible for organizing, advising and evaluating research proposal group projects for 45 students (both written and oral).
3. PT 215: *Musculoskeletal Management I* (2000), School of Rehabilitation Therapy, Queen's University. Responsible for laboratory instruction, supervision and written and clinical evaluation.
4. PT 256: *Cardiorespirology* (1998, 1999), School of Rehabilitation Therapy, Queen's University. Responsible for laboratory instruction and supervision.

Supervisorships

	<i>Completed</i>	<i>In Progress</i>	<i>Inactive</i>
Master's	1	2	0
Doctoral	1	1	0
Professional	23	2	0

Research Stream

McMaster University

Ongoing

1. Linley, Heather. (PhD candidate, 2008-current)
2. Maclean, Kathleen. (MSc candidate, 2009-current)
3. Lee, Bonnie. (BHSc candidate, 2009-current)

4. Shao, Han (BHSc candidate, 2010-current) *NSERC USRA Award 2010*

The University of Western Ontario

Completed

1. Clark, Jessica M. (MSc candidate, 2007-current) *CIHR Master's Award 2008-2009*
2. Robbins, Shawn M.K. (PhD candidate, 2007-current) *OGS Award 2007-2009*
3. Wood, Jennifer P. (MSc candidate, 2007-2008) *CIHR Master's Award 2007-2008*

Graduate Student Committees

Advisory Committees

1. Masters, Keshena Malik "Biomechanical measures in knee osteoarthritis." (2010-current). Rehabilitation Sciences, McMaster University.
2. Masters, Niyati Gandhi "Understanding the pain experience in carpal tunnel syndrome: A descriptive study." (2008-current). Rehabilitation Sciences, McMaster University.
3. Masters, Dan Avrahami "The responses of trunk muscles to unloading perturbations and unstable standing before and after myofascial release of the hip flexors". Kinesiology, McMaster University.
4. Doctoral, Janice Moreside "How does hip joint mobility affect lumbar spine kinetics and kinematics during gait and exercises?" (2007-current) Kinesiology, University of Waterloo.
5. Masters, Joseph Decaria "Mechanisms underlying Hyaluronic Acid Injections in Knee Osteoarthritis" (2007-2008) Kinesiology, The University of Western Ontario.
6. Masters, Michelle Mason "Participation in Long-Term Care" (2006- current) Physical Therapy, The University of Western Ontario.
7. Masters, Seana Rossi "Human Brain Activation Differences During Spatial Forces and Movement Preparation." (2005-2006) Kinesiology & Health Science, York University.

Comprehensives

1. Specific Comprehensives, Janice Moreside (2008) "How does hip joint mobility affect lumbar spine kinetics and kinematics during gait and exercises?" Kinesiology, University of Waterloo.
2. Comprehensive Committee, Daniel Bechard (2008) Rehabilitation Sciences, The University of Western Ontario.
3. Comprehensive Examination Second Reader, Derek Debicki (2007) Neurosciences, The University of Western Ontario.

Thesis Examinations

1. Masters, Dan Avrahami "The responses of trunk muscles to unloading perturbations and unstable standing before and after myofascial release of the hip flexors" (2009) Kinesiology, McMaster University.
2. Masters, Aaron Kociolek "Modelling extrinsic finger flexor tendon excursions" (2009) Kinesiology, McMaster University.
3. Masters, Melissa Brown "The effect of load, frequency and gripping on upper extremity muscle activity during a cyclical pushing task" (2008) Kinesiology, McMaster University.
4. Masters, Michelle Arakgi "Adduction Moment about the Knee: A Comparison of Walking Barefoot and With Shoes" (2008) Kinesiology, The University of Western Ontario.
5. Masters, Kayley Mills "Reliability and Validity of Three Scapula Measurement Techniques" (2008) Physical Therapy, The University of Western Ontario.
6. Doctoral, Michael Anthony Hunt "Measures of static and dynamic alignment in individuals with osteoarthritis of the knee" (2007) Physical Therapy, The University of Western Ontario.

7. Masters, Oren Chieftz “Abdominal support and functional outcomes in patients undergoing abdominal surgery: A randomized control trial.” (2006) Physical Therapy, The University of Western Ontario.
8. Masters, Ravi Rastogi “The right measures at the right time post total knee replacement.” (2006) Physical Therapy, The University of Western Ontario.
9. Masters, Seana Rossi “Human Brain Activation Differences During Spatial Forces and Movement Preparation.” (2005) Kinesiology & Health Science, York University.
10. Masters, Gillian Del Monte “The Effect of Combining Common Office Tasks on Muscular Rest.” (2005) Kinesiology & Health Science, York University.

Research Funding

(Principal Investigator is underlined.)

1. Maly, M.R., Wood, J.P., Taylor, V. (2010-2011). Physiotherapy’s role in improving bariatric surgery outcomes. Physiotherapy Foundation of Canada. Received \$2,000.
2. Maly, M.R., Adachi, J.D., Beattie, K., Callaghan, J.P., Stratford, P. (2010-2014). Clinical outcomes and tissue changes in knee osteoarthritis: A novel approach using cumulative knee load. *Canadian Institutes for Health Research Operating Grant*. Received \$301,593.
3. Dixon SJ, Beier F, Birmingham TB, Bourne RB, Bryant, D, Doherty TJ, Dunning C, Garland SJ, Goldberg H, Gwadry-Sridhar FH, Hamilton D, Holdsworth DW, Hunter GK, Hurtig M, Johnson J, King G, Klosek M, Leask A, Litchfield R, Macdermid J, Maly M, Petrella R, Sims S. (2009-2015). Joint Motion Project: Transdisciplinary training in musculoskeletal health research and leadership. *Canadian Institutes for Health Research Training Grant*. Received \$1.8 million.
4. Maly, M.R. (2008-2013). Motor performance and the influence of neuromuscular fatigue in knee osteoarthritis. *Natural Sciences and Engineering Research Council of Canada*. Received \$108,750.
5. Maly, M.R., Lynn, S.K., Gignac, M., Callaghan, J.P. (2008-2009). Manual materials handling tasks in those with knee osteoarthritis: Could compensations due to knee symptoms increase the risk of low back injury? *Centre for Research Expertise for the Prevention of Musculoskeletal Disorders*. Received \$10,000.
6. Maly, M.R. (2007-2009). Revealing the Process Toward Disability in Knee Osteoarthritis: Is it Unique for Women? *Canadian Institutes for Health Research New Emerging Team “Tooling Up for Early OA”*. Received \$39,547.
7. Maly, M.R. (2006-2007) Process of Disablement in Knee Osteoarthritis. *The University of Western Ontario, Faculty of Health Sciences Tri-Council Initiative*. Received \$2,000.
8. Brouwer, B., Garland, J., Bryant, D., Connelly, D., Maly, M.R., Minnes, P., MacIntyre, N., Pelland, L. (2006-2009) Client-centred ‘tune-ups’: Do they enhance physical capacity, mobility function and community reintegration in stroke survivors? *Heart and Stroke Foundation*. Received \$680,736.

9. Maly, M.R., Olney, S., Costigan, P., Krupa, T. (2005-2006). Perceived Function in People with Knee Osteoarthritis. *Canadian Institutes for Health Research*. Received \$88,000.
10. Culham, E., Rudan, J., Prasad, M.R. (2000-2001). Biomechanics of Foot Orthotics in People with Medial Compartment Knee Osteoarthritis. *Drummond Foundation*. Received \$12,000.

Scholarly Activity

Articles Published in Refereed Journals

(*Students supervised, Senior author, JIF=Journal impact factor, C=Contribution 0.00-1.00)

1. Stratford, P.W., Kennedy, D.M., Maly, M.R., MacIntyre, N.J. (in press April 2010). Quantifying self-report measures' overestimation of mobility scores postarthroplasty. *Physical Therapy*.
2. Wood, J.P.* , Connelly, D.M., Maly, M.R. (in press April 2010) Getting back to real living: The process of community reintegration after stroke. *Clinical Rehabilitation*. (JIF=2.2, C=0.50)
3. Pierrynowski, M.R., Costigan, P.A., Maly, M.R., Kim, P.T. (2010). Patients with osteoarthritic knees have shorter orientation and tangent indicatrices during gait. *Clinical Biomechanics*. (JIF=2.0, C=0.25)
4. Robbins, S.M.K.* , Maly, M.R. (2009). The effect of gait speed on the knee adduction moment depends on waveform summary measures. *Gait and Posture* 30, 543-546. (JIF=2.7, C=0.50)
5. Robbins, S.M.K.* , Birmingham, T.B., Jones, G., Callaghan, J.P., Maly, M.R. (2009). Developing an estimate of daily cumulative loading for the knee: Examining test-retest reliability. *Gait and Posture* 30, 497-501. (JIF=2.7, C=0.50)
6. Maly, M.R. (2009). Knee OA: Taking a load off. *Lower Extremity Reviews* 1, 18-24. (JIF=NA, C=1.00)
7. Maly, M.R., Cott, C.A. (2009). Being careful: A grounded theory of emergent chronic knee problems. *Arthritis Care and Research* 61, 937-943. (JIF=6.8, C=0.80)
8. Wood, J.P.* , Connelly, D.M. and Maly, M.R. (2009) "Holding me back": Living with arthritis while recovering from stroke. *Archives of Physical Medicine and Rehabilitation* 90, 494-500. (JIF=2.2, C=0.50)
9. Maly, M.R. (2009) Linking biomechanics to mobility and disability in people with knee osteoarthritis. *Exercise and Sport Sciences Reviews* 37, 36-42. (JIF=2.6, C=1.00)
10. Maly, M.R. (2008) Abnormal and cumulative loading in knee osteoarthritis. *Current Opinion in Rheumatology* 20, 547-522. (JIF=4.7, C=1.00)
11. Maly, M.R., Costigan, P.A., Olney, S.J. (2008) Mechanics relate to pain in people with knee osteoarthritis. *Clinical Biomechanics* 23, 786-805. (JIF=2.0, C=0.80)

12. Takeuchi, R.*, O'Brien, M.M.*, Ormond, K.B.*, Brown, S.D.J.* and Maly, M.R. (2008) "Moving forward": Success from a physiotherapist's point of view. *Physiotherapy Canada* 60, 19-29. (JIF=NA, C=0.50)
13. Maly, M.R., Costigan, P.A., Olney, S.J. (2007) Self-efficacy mediates walking performance in older adults with knee osteoarthritis. *Journals of Gerontology A: Biological Sciences & Medical Sciences* 62, 1142-1146. (JIF=4.0, C=0.80)
14. Maly, M.R., Krupa, T. (2007) Personal experience of living with knee osteoarthritis among older adults. *Disability and Rehabilitation* 29, 1423-1433. (JIF=1.4, C=0.90)
15. Maly, M.R., Costigan, P.A., Olney, S.J. (2006) Role of knee kinematics and kinetics on performance and disability in people with medial compartment knee osteoarthritis. *Clinical Biomechanics* 21, 1051-1059. (JIF=2.0, C=0.85)
16. Maly, M.R., Costigan, P.A., Olney, S.J. (2006). Determinants of self-efficacy for physical tasks in people with knee osteoarthritis. *Arthritis Care and Research* 55, 94-101 (JIF=6.8, C=0.80)
17. Maly, M.R., Costigan, P.A., Olney, S.J. (2006). Determinants of self-report measures in people with knee osteoarthritis. *Archives of Physical Medicine and Rehabilitation* 87, 96-104. (JIF=2.2, C=0.80)
18. Maly, M.R., Costigan, P.A., Olney, S.J. (2005) Contribution of psychosocial and mechanical variables to mobility outcome measures in knee OA. *Physical Therapy* 85, 1318-1328. (JIF=2.2, C=0.80)
19. Maly, M.R., Culham, E.G., Costigan, P.A. (2002). Static and dynamic biomechanics of foot orthoses in people with medial compartment knee osteoarthritis. *Clinical Biomechanics* 17, 603-610. (JIF=2.0, C=0.70)

Articles Submitted to Refereed Journals

1. Robbins, S.M.K.*, Clark, J.M.*, Maly, M.R. (submitted December 2009). A case report examining longitudinal changes in gait and strength before and after an anterior cruciate ligament tear: Examining potential risk factors. *Journal of Orthopaedic and Sports Physical Therapy*.

Abstracts Published in Refereed Journals

1. Maly, M.R. (2007). Ambulatory mechanics in the initiation and progression of knee osteoarthritis. *Osteoarthritis and Cartilage*, 15 Supplement C, C7.
2. Maly, M.R., Costigan, P., Olney, S. (2006). Mediation of knee strength by a psychosocial factor to affect walking performance in knee osteoarthritis. *Journal of Biomechanics*, 39 Supplement 1, 70.
3. Maly, M.R., Costigan, P., Olney, S. (2006). Role of gait characteristics on walking performance in knee osteoarthritis. *Journal of Biomechanics*, 39 Supplement 1, 71.

4. Maly, M.R., Costigan, P., Olney, S. (2005). Self-efficacy in people with knee osteoarthritis: A mediator of physical performance? *Osteoarthritis and Cartilage*, 13, S71-S72.
5. Prasad, M.R., Culham, E., Rudan, J. (2000). The biomechanics of foot orthotics in people with medial compartment knee osteoarthritis. *Archives of Physiology and Biochemistry*, 108, 74.
6. King-VanVlack, C.E., Mewburn, J.D., Prasad, M.R., Chapler, C.K. (1998). Receptor-mediated vascular actions of endothelin in canine small intestine. *The FASEB Journal*, 4, A6.

Presentations

Invited

1. Maly M.R. (September 2009). Breakfast Workshop: Gait Analysis in Osteoarthritis. *13th World Congress on Osteoarthritis*, Osteoarthritis Research Society International, Montreal Canada.
2. Maly M.R. (April 2008). Role of mechanics in the initiation and progression of knee osteoarthritis. *Department of Kinesiology Seminar Series, The University of Waterloo*, Waterloo Ontario.
3. Maly, M.R. (November 2008). Role of mechanics in the initiation and progression of knee osteoarthritis. *Department of Kinesiology Seminar Series, McMaster University*, Hamilton Ontario.
4. Maly, M.R. (December 2007). Ambulatory Mechanics in the Initiation and Progression of Knee Osteoarthritis. *11th World Congress on Osteoarthritis*, Osteoarthritis Research Society International, Ft. Lauderdale Florida.
5. Maly, M.R. (February 2006). Examining the Determinants of Performance in People with Medial Compartment Knee Osteoarthritis. *University of Waterloo School of Kinesiology Seminar Series*, Waterloo Ontario.
6. Maly, M.R. (February 2006). The Role of Psychosocial Factors in Knee Osteoarthritis. *Arthritis Community Research and Evaluation Unit Rounds*, Toronto Western Hospital Research Institute, Toronto Ontario.
7. Maly, M.R. (October 2004). Assessing Mobility in People with Knee Osteoarthritis. *Southeastern Ontario Health Science Centre Orthopaedic Care Conference*, Kingston Ontario.

Refereed

1. Beattie, K.A., MacIntyre, N.J., Quan, E., Inglis, D., Maly, M.R. (submitted) Reproducibility of bone, muscle and fat measurements from MR images of the thighs of female OAI participants. *4th International Workshop on Imaging Based Measures of Osteoarthritis*, Vancouver British Columbia, Canada.
2. Maly, M.R., Hodder, J., Linley, H.S.,* Pierrynowski, M.R., Plashkes, T.* (accepted). Exhaustive exercise imbalances neuromuscular activation of knee extensors and flexors in

young and middle-aged women. *Canadian Society for Biomechanics Conference*, Kingston Ontario, Canada.

3. Maly, M.R., Robbins, S.M.K.* (accepted). Cumulative loading is superior to the peak knee adduction moment when distinguishing between healthy adults and adults with knee osteoarthritis. *Canadian Society for Biomechanics Conference*, Kingston Ontario, Canada.
4. Maly, M.R., Robbins, S.M.K.* (accepted). Cumulative knee adductor load distinguishes between healthy adults and adults with knee osteoarthritis: A validation study. *International Society for Electromyography and Kinesiology*, Aalborg, Denmark.
5. Maly, M.R., Hodder, J., Plashkes, T.* (accepted). Middle-aged women demonstrate fatigability of hamstrings with exhaustive exercise. *International Society for Electromyography and Kinesiology*, Aalborg, Denmark.
6. Robbins, S.M.K.*, Birmingham, T.B., Maly, M.R. (accepted). A pilot study examining predictors of physical activity in knee osteoarthritis. *Canadian Physiotherapy Association Congress 2010*, St. Johns, Newfoundland.
7. Robbins, S.M.K.*, Alcock, G, Maly, M.R., Stratford, P.A. (accepted). Longitudinal recovery after an anterior cruciate ligament rupture and reconstruction: Examining a cohort and a case study. *Canadian Physiotherapy Association Congress 2010*, St. Johns, Newfoundland.
8. Mason, M.E., Connelly, D.M., Maly, M.R., Rudman, D.L. (2009). Finding meaningful participation in long-term care by long-term residents: Assessing options within restrictions. *International Institute for Qualitative Methodology*, Edmonton Alberta. Poster Presentation.
9. Maly, M.R., Costigan, P.A. (2009). Distinguishing between mechanical pathology and compensation using gait analysis in people with knee osteoarthritis. *American Society of Biomechanics*, State College Pennsylvania. Poster Presentation.
10. Maly, M.R., Robbins, S.M.K.* (2009). Response of the knee adduction moment to changes in gait speed: Peak versus impulse. *American Society of Biomechanics*, State College Pennsylvania.
11. Maly, M.R., Robbins, S.M.K.* (2009). Cumulative knee loading relates to pain intensity and knee extensor torque in people with knee osteoarthritis. *American Society of Biomechanics*, State College Pennsylvania. Poster Presentation. **Winner of the 2009 President's Award for innovative theoretical or laboratory research.**
12. Beach, T.A.C., Clark, J.M.*, Maly, M.R., Callaghan, J.P. (2009). Does a unilateral restriction in ankle mobility affect trunk kinematics and low-back loading during manual lifting tasks? *American Society of Biomechanics*, State College Pennsylvania. Poster Presentation.
13. Maly, M.R., Mackay, A.* (2009). Mentoring in Physiotherapy. *Canadian Physiotherapy Association*, Calgary, Alberta. Podium Presentation.

14. Robbins, S.*, Jones, G., Birmingham, T., Callaghan, J. and Maly, M. (2008). Developing a cumulative loading measure for the knee: Examining test-retest reliability. *North American Congress on Biomechanics*, Ann Arbor Michigan. Poster Presentation.
15. Wood, J.P.*, Connelly, D.M., and Maly, M.R. (2008). "Returning Home": Stroke survivors reintegrating into their communities. *Aging Rehabilitation & Geriatric Care*, London Ontario. Poster Presentation. **Second place winner for best poster presentation, sponsored by Mercury Blueprinting.**
16. Mason M., Connelly, D., Rudman, D., and Maly M.R. (2008). Barriers to Participation in Long-term Care. *Aging Rehabilitation & Geriatric Care*, London Ontario. Poster Presentation.
17. Wood, J.P.*, Gibbs, L.B., Connelly, D.M. and Maly, M.R. (2008). Holding me back: Living with arthritis while recovering from stroke. *Canadian Rheumatology Association*, Mont Tremblant Quebec. Poster Presentation.
18. Gibbs, L.B., Maly, M.R. (2007) Coping with "Suspicious Knees": How do we learn to manage with emerging knee problems? *Canadian Arthritis Network*, Halifax Nova Scotia. Poster Presentation.
19. O'Brien, M.M.*, Takeuchi, R.*, Ormond, K.B.*, Brown, S.D.J.*, Maly, M.R. (2007) Moving forward: Success from a physiotherapist's point of view. *World Congress for Physical Therapy*, Vancouver BC, Poster Presentation. **Winner of the Constance Beattie Memorial Award, Physiotherapy Foundation of Canada.**
20. Maly, M.R., Costigan, P.A., Olney, S.J. (2007) Mechanics relate to pain in people with knee osteoarthritis. *World Congress for Physical Therapy*, Vancouver BC, Podium Presentation
21. Maly, M.R., Costigan, P.A., Olney, S.J. (2006) Is the adduction moment useful for early detection of knee osteoarthritis? *Canadian Arthritis Network*, Winnipeg MB, Poster Presentation.
22. Maly, M.R., Costigan, P., Olney, S. (2006). Mechanical determinants of pain intensity in people with knee osteoarthritis. *Canadian Society for Biomechanics*, Waterloo ON, Podium Presentation.
23. Maly, M.R., Costigan, P., Olney, S. (2006). Mediation of knee strength by a psychosocial factor to affect walking performance in knee osteoarthritis. *Canadian Society for Biomechanics*, Waterloo ON, Poster Presentation.
24. Maly, M.R., Costigan, P., Olney, S. (2006). Role of gait characteristics on walking performance in knee osteoarthritis. *Canadian Society for Biomechanics*, Waterloo ON, Poster Presentation.
25. Maly, M.R., Costigan, P., Olney, S. (2006). Mediation of knee strength by a psychosocial factor to affect walking performance in knee osteoarthritis. *5th World Congress of Biomechanics*, Munich Germany, Podium Presentation.

26. Maly, M.R., Costigan, P., Olney, S. (2006). Role of gait characteristics on walking performance in knee osteoarthritis. *5th World Congress of Biomechanics*, Munich Germany, Podium Presentation.
27. Maly, M.R., Costigan, P., Olney, S. (2006). Toward a better understanding of mobility outcome measure scores for people with knee osteoarthritis. *Canadian Physiotherapy Association National Congress*, St. John NB, Podium Presentation. **Winner of Audrey Trudeau Memorial Award, Physiotherapy Foundation of Canada.**
28. Maly, M.R., Costigan, P., Olney, S. (2005). Self-efficacy in people with knee osteoarthritis: A mediator of physical performance? *10th World Congress on Osteoarthritis*, Boston MA, Poster Presentation.
29. Maly, M.R., Costigan, P.A., Olney, S.J. (2005). Relative contribution of psychosocial and mechanical attributes to the performance of physical tasks in people with knee osteoarthritis. *Physical Therapy website*.
<http://www.ptjournal.org/abstracts/pt2005/abstractsPt.cfm?pubNo=PL-RR-155-SA>
30. Maly, M.R., Costigan, P.A., Olney, S.J. (2005) Are the Gait Kinetics of Women and Men with Knee Osteoarthritis Different? *International Society for Biomechanics*, Cleveland OH, Poster Presentation.
31. Maly, M.R., Costigan, P.A., Olney, S.J. (2005) Relative Contribution of Psychosocial and Mechanical Attributes to the Performance of Physical Tasks in People with Knee Osteoarthritis, *American Physical Therapy Association*, Boston MA, Podium Presentation.
32. Maly, M.R., Costigan, P.A., Olney, S.J. (2004) Knee Kinematics, Knee Kinetics and Hip Kinetics in Medial Compartment Knee OA, *Canadian Society for Biomechanics*, Halifax NS, Podium Presentation.
33. Maly, M.R., Costigan, P.A., Olney, S.J. (2004) Perceived and Observed Function in People with Knee Osteoarthritis, *Canadian Physiotherapy Association Congress*, Quebec City QC, Podium Presentation.
34. Maly, M.R. (2002). Evidence Based Practice for Knee Osteoarthritis. *Ontario Physiotherapy Association*, London ON, Podium Presentation.
35. Maly, M.R., Culham E., Costigan P. (2002). Biomechanics of foot orthoses in people with medial compartment knee osteoarthritis. *Ontario Physiotherapy Association*, London ON, Podium Presentation.
36. Prasad, M.R., Culham, E., Rudan, J. (2000). The biomechanics of foot orthotics in people with medial compartment knee osteoarthritis. *Canadian Society for Biomechanics*, Montreal QC, Poster Presentation.
37. Prasad, M.R. (2000). The Biomechanics of Foot Orthotics in People with Medial Compartment Knee Osteoarthritis. *Basic and Clinical Sciences Research Trainees Day*, Queen's University ON, Podium Presentation.
38. Prasad, M.R., Mewburn, J.D., King-VanVlack, C.E. (1998). Receptor-Mediated Metabolic and Hemodynamic Actions of Endothelin-1 in the Canine Small Intestine: Clinical

Implications. *Canadian Physiotherapy Association National Congress*, St. John's NFLD, Poster Presentation.

Non-Refereed

1. Robbins, S.*, Jones, G., Birmingham, T. and Maly, M. Body functions and environmental factors explain physical activity in people with knee osteoarthritis. Health and Rehabilitation Sciences Conference, London Ontario. Podium Presentation. ***Winner of Western HRS Doctoral Award.***
2. Robbins, S.*, Birmingham, T. and Maly, M. (March 2009). The influence of gait speed on the knee adduction moment. *Ontario Biomechanics Conference*, Barrie Ontario. Podium Presentation.
3. Clark, J.*, Robbins, S.* and Maly, M. (March 2009). Abnormal gait mechanics persist post-ACL reconstruction. *Ontario Biomechanics Conference*, Barrie Ontario. Poster Presentation
4. Robbins, S.*, Jones, G., Birmingham, T., Callaghan, J. and Maly, M. (March 2008). Developing a cumulative loading measure for the knee: Examining test-retest reliability. *Ontario Biomechanics Conference*, Barrie Ontario. Podium Presentation.
5. Clark, J.*, Robbins, S.* and Maly, M. (March 2008). Do clinical measures reflect gait biomechanics during recovery from anterior cruciate ligament rupture? *Ontario Biomechanics Conference*, Barrie Ontario. Podium Presentation.
6. Maly, M.R. (April 2005). A Systems Approach to Understanding Mobility in People with Knee Osteoarthritis. *School of Physical Therapy, University of Western Ontario*, London Ontario. Podium Presentation.
7. Maly, M.R. (March 2004). Mobility in People with Knee OA. *School of Kinesiology and Health Science Seminar Series, York University*, Toronto Ontario. Podium Presentation.
8. Maly, M.R. (February 2004). Perceived Function in People with Knee Osteoarthritis – Clinical Applications. *Rehabilitation Inservice, Providence Continuing Care Centre St. Mary's of the Lake site*, Kingston Ontario. Podium Presentation.
9. Maly, M.R. (February 2004). Perceived Function in People with Knee Osteoarthritis. A Systems Theory Approach, *School of Physical and Health Education Seminar Series, Queen's University*, Kingston Ontario. Podium Presentation.
10. Maly, M.R. (February 2004). Perceived Function in People with Knee Osteoarthritis. A Systems Theory Approach, *School of Rehabilitation Therapy Seminar Series, Queen's University*, Kingston Ontario. Podium Presentation.
11. Maly, M.R., Costigan P., Olney S. (April 2003). Perceived Function in People with Knee Osteoarthritis. *Rehabilitation Research Colloquium, McGill University*, Montreal Quebec. Podium Presentation.
12. Maly, M.R. (November 2002). A Systems Theory Approach to Knee Osteoarthritis. *Human Mobility Research Centre Seminar Series*, Kingston General Hospital, Kingston Ontario. Podium Presentation.

13. Maly, M.R. (April 2001). Determinants of Perceived Function in People with Medial Compartment Knee Osteoarthritis: A Research Proposal. *School of Rehabilitation Therapy Seminar Series, Queen's University, Kingston Ontario*. Podium Presentation.
14. Maly, M.R. (March 2001). Evidence Based Therapeutic Practice for Knee Osteoarthritis. *Orthopaedic Interest Group, Kingston Ontario*. Presentation and Workshop Facilitation.
15. Prasad, M.R. (July 2000). The Biomechanics of Foot Orthotics in People with Medial Compartment Knee Osteoarthritis. *Rehabilitation Research Symposium, Queen's University, Kingston Ontario*. Podium Presentation.
16. Prasad, M.R. (April 2000). The Biomechanics of Foot Orthotics in People with Medial Compartment Knee Osteoarthritis. *School of Rehabilitation Therapy Seminar Series, Queen's University, Kingston Ontario*. Podium Presentation.
17. Prasad, M.R., Huo, F. (September 1999). The Reliability of Unwindowed versus Windowed Mean Torque using the LIDO Active Isokinetic System. *Providence Continuing Care Centre Rounds, St. Mary's of the Lake Hospital, Kingston Ontario*. Podium Presentation.
18. King-VanVlack, C.E., Mewburn, J.D., Chapler, C.K. (Prasad, M.R. acknowledged for data collection and data analysis.) (1999). Receptor-mediated vascular and metabolic actions of endothelin-1 in canine small intestine. *American Journal of Physiology*, 276, G1131-G1136.
19. Prasad, M.R. (April 1998). The Female Athlete Triad: A Literature Review. *Kingston, Frontenac, Lennox & Addington Health Unit Research and Education Development Rounds, Kingston Ontario*. Podium Presentation.
20. Prasad, M.R., King-VanVlack, C.E. (Oct 1997). Endothelin-1 in the Small Intestine: Clinical Implications. *School of Rehabilitation Therapy Seminar Series, Queen's University, Kingston Ontario*. Podium Presentation.

Administrative Responsibilities

Departmental

School of Rehabilitation Science, McMaster University

1. Member, Rehabilitation Science, Physical Therapy Curriculum Committee (2008-current).
2. Member, Rehabilitation Science, Physical Therapy Board Committee (2008-current).
3. Member, Rehabilitation Science, Comprehensives Oversight Committee (2008-current).
4. Member, Rehabilitation Science, Physical Therapy Portfolio Committee (2008-current).
5. Member, Rehabilitation Science, Doctoral Admissions Committee (2009-current).

School of Physical Therapy, The University of Western Ontario

6. Member, School of Physical Therapy Committee (2006-2008).
7. Member, Physical Therapy Field Graduate program (2006-2008).
8. Member, Admissions to Physical Therapy Entry-to-Practice program (2006-2008).
9. Member, Adjudication of Ontario Graduate Scholarship (OGS) awards (2006).

School of Kinesiology & Health Science, York University

10. Faculty Representative, March Break Orientation Session (2005).
11. Member, Tenure and Promotions File Adjudication (2005).
12. Member, Adjudication of Social Sciences and Humanities Research Council (SSHRC), Natural Sciences and Engineering Council (NSERC) and Canadian Institutes of Health Research (CIHR) graduate awards (2005).

School of Rehabilitation Therapy, Queen's University

13. Member, Admissions to Physical Therapy Entry-to-Practice program (2001-2004) School of Rehabilitation Therapy Queen's University
14. Graduate Student Representative, School of Rehabilitation Therapy Queen's University (2000-2003). (roles include member of Graduate Committee, Appointments, Tenure and Promotion Committee)

Faculty & University

McMaster University

15. Member, Faculty of Health Sciences, Library Committee (2010-current)
16. Member, Faculty of Health Sciences, Associate Dean Rehabilitation Sciences Search Committee (2009-current).
17. Reviewer, Faculty of Health Sciences, CIHR Internal Review (2010).
18. Poster Judge, Faculty of Health Sciences Research day (2008)

Provincial & National

Academic

1. Invited Speaker, Trainee Luncheon, Canadian Society for Biomechanics (2010).
2. Reviewer, Training competition for the Canadian Arthritis Network (2008).
3. Reviewer, Canadian Society for Biomechanics student competition (2008).
4. Chair, Trainee teleconference series, CIHR New Emerging Team "Tooling up for early OA" (2007).
5. Committee member (musculoskeletal), Review of Canadian physiotherapy program curriculum, Canadian Universities Physical Therapy Academic Council (2007)
6. Invited Speaker, Women in Science Luncheon, Canadian Society for Biomechanics (2006)
7. Reviewer, Advanced Practice for Physiotherapy Position Statement, Ontario Physiotherapy Association (2006)
8. Planning Committee Member, Rehabilitation Research Symposium, School of Rehabilitation Therapy, Queen's University (1999-2000)
9. School of Rehabilitation Therapy Undergraduate Representative, Faculty of Health Sciences Equity Issues Committee (1995-1997)

Professional

1. Committee member, Awards Committee for the Ontario Physiotherapy Association (2008-current).
2. Board of Directors, Ontario Physiotherapy Association (2004-2006)
3. Member (Physiotherapy Representative), Pre-Approved Framework Evaluation Committee, Insurance Bureau of Canada (2004-2006)
4. Co-chair, Hospitals Task Force (Advocate for publicly-funded physiotherapy to the Director of Hospitals Branch) Ontario Ministry of Health and Long-Term Care (2005-2006)
5. Co-Chair, Planning Committee for "Stand Up and Be Counted" Ontario Physiotherapy Association Conference, May 9th 2003, Kingston Ontario (2002-2003)

6. President, Quinte-St. Lawrence District of the Ontario/Canadian Physiotherapy Association (2001-2004)
7. Task Force Member, Planning and Priorities Committee of the Ontario Physiotherapy Association (2001)
8. Executive (Secretary), Quinte-St. Lawrence District of the Ontario/Canadian Physiotherapy Associations (1998-2001)
9. Peer Health Educator, Queen's University Student Health (1995-1998). Facilitated workshops on stress management, body image, healthy eating to students in residence
10. Member, Ontario Public Interest Research Group, Teenage Women's Health Initiative (1996-1998). Developed and delivered interactive educational sessions on body image, self-esteem and sexual health for female teens in high schools