

PUBLICATIONS

PUBLISHED PEER-REVIEWED ARTICLES (graduate students under my supervision underlined)

1. **Astephen Wilson JL**, Stanish WD, Hubley-Kozey CL. 2016. Individuals with radiographic knee osteoarthritis walk with different knee mechanics than symptomatic individuals with the same radiographic evidence. *Journal of Orthopaedic Research*. October 24 (epub ahead of print).
2. Tam N, **Astephen Wilson JL**, Coetzee DR, van Pletzen L, Tucker R. 2016. Loading rate increases during barefoot running in habitually shod runners: Individual responses to an unfamiliar condition. *Gait Posture*. May; 46: 47-52.
3. Tam N, Tucker, R, **Astephen Wilson JL**. 2016. Individual responses to a barefoot running program: Insight into risk of injury. *The American Journal of Sports Medicine*. Mar; 44(3): 777-84.
4. Harding G, Dunbar MJ, Stanish WD, Hubley-Kozey CL, **Astephen Wilson JL**. 2016. Obesity and the Presence of Moderate Knee Osteoarthritis Affect Tibiofemoral Contact Forces during Gait. *Clinical Biomechanics*, Jan;31:79-86.
5. Amiri P, Hubley-Kozey CL, Stanish WD, **Astephen Wilson JL**. 2015. Obesity is associated with prolonged activity of the quadriceps and gastrocnemii during gait. *Journal of Electromyography and Kinesiology* Dec; 25(6): 951-8.
6. Young KL, Dunbar MJ, Richardson G, **Astephen Wilson JL**. 2015. Intraoperative Passive Kinematics during total knee arthroplasty. *Journal of Orthopedic Research*. Nov; 33(11): 1611-9.
7. Tam, N, Tucker R, **Astephen Wilson JL**, Santos-Concejero J. 2015. Effect on oxygen cost of transport from 8-weeks of progressive training with barefoot running. *Int J Sports Med*. Nov; 36(13): 1100-5.
8. **Astephen Wilson JL**, Dunbar MJ, Hubley-Kozey CL. 2015. Knee Joint Biomechanics and Neuromuscular Control during Gait Before and After Total Knee Arthroplasty are Sex-Specific. *Journal of Arthroplasty*. Jan;30(1):118-25.
9. Wilson DA, **Astephen Wilson JL**, Richardson G, Dunbar MJ. 2014. Changes in the functional flexion axis of the knee before and after total knee arthroplasty using a navigation system. *Journal of Arthroplasty*. Jul; 29(7): 1388-93.
10. Tam N, **Astephen Wilson JL**, Noakes TD, Tucker R. 2014. Barefoot Running: An Evaluation of Current Hypothesis, Future Research, and Clinical Applications, *British Journal of Sports Medicine*, March, 48(5), 349-55.
11. Robbins S, **Astephen Wilson JL**, Rutherford DJ, Hubley-Kozey CL. 2013. Reliability of Principal Components and Discrete Parameters of Knee Angle and Moment Gait Waveforms in Individuals with Moderate Knee Osteoarthritis. *Gait and Posture*. July, 38(3), 421-7.
12. Harding GT, Hubley-Kozey CL, Stanish WD, Dunbar MJ, **Astephen Wilson JL**. 2012. Body Mass Index Affects Knee Joint Mechanics during Gait Differently with and without Moderate Knee Osteoarthritis. *Osteoarthritis and Cartilage*. Nov; 20(11): 1234-42.
13. RD Roda, **JL Astephen Wilson***, DAJ Wilson, G Richardson, MJ Dunbar. 2012. The Knee Adduction Moment during Gait is Associated with the Adduction Angle Measured during Computer-Assisted Total Knee Arthroplasty, *Journal Arthroplasty*. Jun; 27(6): 1244-50. (*senior, corresponding author)
14. Wilson DAJ, Hubley-Kozey CL, **Astephen Wilson JL**, Dunbar MJ. 2012. Preoperative Muscle Activation Patterns During Walking Affect Tibial Implant Migration. *Clinical Biomechanics*. 27(9), 936-942.
15. **Astephen Wilson JL**. (2012) Challenges in Dealing with Walking Speed in Knee Osteoarthritis Gait Analysis. *Clinical Biomechanics* Mar; 27(3):210-212.
16. **Astephen Wilson JL**, Deluzio KJ, Dunbar MJ, Hubley-Kozey CL. 2011. The association between knee joint biomechanics and neuromuscular control and moderate knee osteoarthritis radiographic and pain severity. *Osteoarthritis and Cartilage*. Feb; 19(2): 186-93.
17. Hatfield G, Hubley-Kozey CL, Dunbar MJ, **Astephen Wilson JL**. 2011. The effect of total knee arthroplasty on knee joint kinematics and kinetics during gait. *Journal of Arthroplasty*; Feb;26(2): 309-18.
18. Hubley-Kozey CL, Hatfield G, **Astephen Wilson JL**, Dunbar MJ. 2010. Alterations in neuromuscular patterns between pre and one-year post-total knee arthroplasty. *Clinical Biomechanics*; Dec. 25(10); 995-1002.
19. Goplen G, **Astephen Wilson JL**, Mcaffrey M, Deluzio KJ, Leighton R. 2010. Reaming: A comparison between new reamer design (Pressure Sentinel) and a novel suction/irrigation reamer (RIA). *International Journal of the Care of the Injured*, Injury Supplement 2, Volume 41, Pg S38-S42, November.

20. **Astephen Wilson JL**, Wilson DAJ, Dunbar MJ, Deluzio KJ. 2010. Preoperative gait patterns and BMI are associated with postoperative tibial component migration in total knee arthroplasty. *Acta Orthopaedica*. Aug;81(4):478-86.
21. Wilson DAJ, **Astephen JL**, Hennigar AW, Dunbar MJ. 2010. Inducible Displacement of a Trabecular Metal Tibial Monoblock Component. *Journal of Arthroplasty*. Sep;25(6):893-9.
22. **Astephen JL**, Deluzio KJ, Caldwell GE, Dunbar MJ, Hubley-Kozey CL. 2008. Gait and Neuromuscular Patterns Associated with Differences in Knee Osteoarthritis Severity Levels. *Journal of Biomechanics*. 41(4), 868-76.
23. **Astephen JL**, Deluzio KJ, Caldwell GE, Dunbar MJ. 2008. Biomechanical Changes at the Hip, Knee and Ankle Joints during Gait are Associated with Knee Osteoarthritis Severity. *Journal of Orthopedic Research*. Mar 26(3), 332-41.
24. Deluzio KJ, **Astephen JL**. 2007. Biomechanical Features of Gait Waveform Data Associated with Knee Osteoarthritis. An Application of Principal Component Analysis. *Gait and Posture*. Jan 25(1), 86 – 93.
25. **Astephen JL**, Deluzio KJ. 2005. Changes in Frontal Plane Dynamics and the Loading Response Phase of the Gait Cycle are Characteristic of Severe Knee Osteoarthritis: Application of a Multidimensional Analysis Technique. *Clinical Biomechanics* 20, 209 – 217.
26. **Astephen JL**, Deluzio KJ. 2004. A Multivariate Gait Data Analysis Technique: Application to Knee Osteoarthritis. *Proc. Instn Mech. Engrs. Part H: The Journal of Engineering in Medicine*. 218(4), 271 – 279.

BOOKS AND CHAPTERS

27. **Astephen JL**, Deluzio KJ. (2009) Chapter 2: “Techniques in Modern Gait Analysis and Their Application in the Study of Knee Osteoarthritis (OA)”. *Biomechanical Systems Technology. Muscular Skeletal Systems*. World Scientific Publishing. Editor: C.T. Leondes. pp. 39-72.