

Dr Saeed Forghany

School of Rehabilitation Sciences
Isfahan University of Medical Sciences, Isfahan, Iran
Mobile: 0098 913 401 2462
E-mail: S.Forghany@salford.ac.uk



➤ **Education:**

❖ **PhD (2005-2009)**

Clinical Biomechanics, University of Salford, UK, PhD project: The biomechanics of foot and ankle during walking in people with stroke and the effects of orthotics. Supervisors: Prof. Sarah Tyson, Prof. Christopher Nester, Dr. Stephen Preece, Dr. Richard Jones

❖ **MSc (2001-2004)**

Orthotics and Prosthetics, The University of Social Welfare and Rehabilitation Sciences, Tehran, Iran, GPA: 90.1/100

❖ **B.Sc. (1995-1999)**

Orthotics and Prosthetics, Isfahan University of Medical Sciences, Isfahan, Iran, GPA: 81/100

➤ **Experience:**

❖ Academic

- **Tutor and Instructor (1999-2003)**

Technical Orthopedics Department, School of Rehabilitation Sciences, Isfahan University of Medical Sciences, Isfahan, Iran

- **Post Doctoral Research Fellow in Clinical Biomechanics (2009-2010)**

Centre for Health, Sport and Rehabilitation Sciences Research, University of Salford, UK

- **Honorary Lecturer (2010-continue)**

Centre for Health, Sport and Rehabilitation Sciences Research, University of Salford, UK

- **Assistant Professor in Orthotics and Prosthetics (2010- continue)**

School of Rehabilitation Sciences, Isfahan University of Medical Sciences, Isfahan, Iran

❖ Teaching

- Biomechanics
- Electromyography (KEMG)
- Computer applications in biomechanics (Matlab, Motion analysis software,..)
- Advanced research method

- Advanced orthotics
- Medical ethics
- Control systems of orthotics & prosthetics

❖ **Clinical**

- Prosthetist and orthotist (1999-2005)
Sina Technical Orthopedic Centre, Isfahan, Iran
- Prosthetist and orthotist (1999-2001)
Amin hospital, Isfahan University of Medical Sciences, Isfahan, Iran

❖ **Executive**

- Deputy Head for education (2010-2014)
Rehabilitation school, Isfahan University of Medical Sciences,
Isfahan, Iran

➤ **Honors:**

- Full PhD scholarship from the Iranian ministry of health and medical education, 2004
- Overseas Research Student Award (ORSAS), university of Salford, 2005
- Honorary Lecturer (2010-continue)
Centre for Health, Sport and Rehabilitation Sciences Research,

➤ **Other Evidence of External Esteem:**

- Referee for: Journal of Gait & Posture
- Referee for: Journal of Prosthetics & Orthotics International
- Referee for: Iranian journal of rehabilitation sciences

➤ **Research Interests:**

Disorders of movement, Gait and gait assessment, Foot and ankle biomechanics, Biomechanics of lower limb in normal and neuromuscular conditions, Development and evaluation of assistive devices including footwear and orthoses

➤ **Publications:**

❖ **ISI Indexed**

1. **Forghany S**, Jones R, Preece S, Nester C, Tyson S. Early observations of the effects of lateral wedge orthoses on lower limb muscle length and potential for exacerbating spasticity. Prosthetics and orthotics international. 2010;34(3):319-26. ***IF:0.818***
2. **Forghany S**, Tyson S, Nester C, Preece S, Jones R. Foot posture after stroke: frequency, nature and clinical significance. Clinical Rehabilitation. 2011;25(11):1050-5. ***IF:2.530***

3. **Forghany S**, Nester CJ, Richards B. The effect of rollover footwear on the rollover function of walking. Journal of Foot and Ankle Research. 2013;6(1):24. **IF:1.868**
4. **Forghany S**, Nester CJ, Richards B, Hatton AL, Liu A. Rollover footwear affects lower limb biomechanics during walking. Gait & Posture. 2013; 39(1), 205-212. **IF:2.632**
5. Hashmi F, Richards BS, **Forghany S**, Hatton AL, Nester CJ. The formation of friction blisters on the foot: the development of a laboratory based blister creation model. Skin Research and Technology. 2013;19(1):e479-e89. **IF:1.687**
6. **Forghany S**, Nester C, Tyson S, Preece S, Jones R. The effect of stroke on foot kinematics and the functional consequences. Gait & Posture. 2014. <http://dx.doi.org/10.1016/j.gaitpost.2014.01.006>. **IF: 2.632**

❖ Other journal publications

7. Taheri, A. R., **Forghany, S.**, Atapour, S., & Hasanzadeh, A. The effective teaching from faculty members and rehabilitation students' point of view. Iranian Journal of Medical Education. (2012).
8. **Forghany S**, Bagherian Dehkordi S, Montazeri Sanech H, Mashhadi M. Foot posture in basketball player with history of shin splint. J Res Rehabil Sci 2013;9(3).
9. Hemmati F, **Forghany S**. The effects of pronated foot posture and medial heel and sole wedge orthoses on static balance in older people. J Res Rehabil Sci 2014;9(6).

10. Taheri, A. R., **Forghany, S.**, Zeraat J. Facilitating and deterrent factors in learning practical skills from the viewpoints of the rehabilitation students, third year onwards. J Res Rehabil Sci 2014;9(6).

❖ **Conference publications**

11. Forghany S, Tyson S, Nester C, Jones R, Preece S. O067 Functional measures of lower limb spasticity in stroke during gait. Gait & Posture. 2008;28:S46-S7.
12. Forghany S, Tyson S, Nester C, Jones R, Preece S. P091 Effect of lateral wedges on lower leg muscle length and potential for exacerbating spasticity. Gait & Posture. 2008;28:S105-S6.
13. Forghany S, Nester C, Richards B. The relationship between sole curvature of roll over footwear and changes in gait. Journal of Foot and Ankle Research. 2012;5(Suppl 1):O5.
14. Forghany S, Nester C, Richards B, Hatton A. Effect of rollover footwear on metabolic cost of ambulation, lower limb kinematics, kinetics, and EMG related muscle activity during walking. Journal of Foot and Ankle Research. 2012;5(Suppl 1):O4.

➤ **Conferences:**

1- Forghany S, Tyson S, Nester CJ, Jones R, Preece S (2007). A pilot study to investigate functional measures of spasticity in stroke during gait; 4th International Conference on Biomechanics and Rehabilitation of the Lower Limb, Salford, UK

2- Forghany S, Jones R, Tyson S, Nester CJ, Preece S (2007). A pilot study to investigate the effects of lateral wedges on muscle lengths and lengthening in the lower leg; 4th International Conference on Biomechanics and Rehabilitation of the Lower Limb, Salford, UK

3- Forghany S, Tyson S, Nester CJ, Jones R ,Preece S (2007). The effect of lateral wedges on lower leg muscle length and potential for exacerbating spasticity, International Society of Prosthetics and Orthotics; ISPO UK NMS Annual Scientific Meeting, Stoke on Trent, UK

4- Forghany S, Tyson S, Nester CJ, Jones R ,Preece S (2008). Three-dimensional kinematics of a multi-segment foot model in stroke during stance phase; Clinical Movement Analysis Society UK and Ireland (CMAS) Annual Meeting and AGM 2008, Salford, UK

5- Forghany S, Tyson S, Nester CJ, Jones R ,Preece S (2008). The effects of stroke on foot kinematics using a multi-segment foot model. 3rd North West Biomechanics Research day, Manchester, UK

6- Forghany S, Tyson S, Nester CJ, Jones R ,Preece S (2008). The effects of stroke on foot kinematics; 1st Congress of the International Foot

and Ankle Biomechanics Community, Bologna, Italy,

7- Forghany S, Tyson S, Nester CJ, Jones R ,Preece S (2008). The effects of stroke on foot kinematics; Annual Meeting of European Society of Movement Analysis for Adults and Children (ESMAC); Turkey

8- Forghany S, Tyson S, Nester CJ, Jones R ,Preece S (2008). Functional measures of lower limb spasticity in stroke during gait, Annual Meeting of European Society of Movement Analysis for Adults and Children (ESMAC), Turkey,

9- Forghany S, Tyson S, Nester CJ, Jones R ,Preece S (2008). Effect of lateral wedges on lower leg muscle length and potential for exacerbating spasticity, Annual Meeting of European Society of Movement Analysis for Adults and Children (ESMAC), Turkey, Published in the journal of Gait & Posture

10- Keynote Speaker, 'the biomechanics of the foot in people with stroke and the implications for the design and prescription of orthotics devices. Neurological Rehabilitation Research Seminar, University of Salford, UK, December 2010.

11-H Jarvis, CJ Nester, P Bowden, RK Jones, S Forghany. Repeatability of the Salford multi segment foot model, 2nd Congress of the International Foot and Ankle Biomechanics Community. 2010; University of Washington

12- Keynote Speaker, 'Evidence Based Rehabilitation with special attention

to orthotic Interventions' ,The 1st national congress of Rehabilitation & Movement disorders, Isfahan University of Medical Sciences, Iran, March 2011

13- Forghany S, Tyson S, Nester CJ, Jones R ,Preece S (2011). Foot posture variations after stroke: frequency, nature and clinical significance. World Physical Therapy 2011, 20-23 June, Amsterdam, Holland

14- Forghany S, Nester CJ, Richards B. The relationship between sole curvature of roll over footwear and changes in gait. Third international foot and ankle biomechanics conference; 2012; ; University of Sydney

15- Forghany S, Nester CJ, Richards B. Effect of rollover footwear on metabolic cost of ambulation, lower limb kinematics, kinetics, and EMG related muscle activity during walking. Third international foot and ankle biomechanics conference; 2012; ; University of Sydney

16- Forghany S, Nester CJ, Richards B. Effect of rollover footwear on lower trunk muscle activity during walking. Tenth Iranian Orthotics and Prosthetics conference; 2012; Best paper award.

➤ **Papers in Progress:**

1. The effect of stroke on plantar pressure distribution after stroke and the functional consequences. To be submitted to Gait & Posture.

2. Functional measures of lower limb spasticity in stroke during gait. To be submitted to *Gait & Posture*.
3. Neuromuscular foot and ankle impairments after stroke; Relationship with biomechanics and function. To be submitted to *Gait & Posture*.
4. Underlying mechanisms of foot and ankle biomechanical impairments after stroke. To be submitted to *Neurorehabilitation & Neural Repair* (NNR).
5. Correlation of quantitative measures of spasticity and stiffness with the modified Ashworth scale in the assessment of plantar flexor spasticity following stroke. To be submitted to *Neurorehabilitation & Neural Repair*.
6. The design of four different types of pressure and shear reducing insoles and evaluation of their effectiveness in healthy subjects
7. Challenging the conventional wisdom that we should always place the measurement insole under your foot rather than the shoe insole
8. The effects of rollover footwear on lower limb joint reaction forces
9. Rollover footwear affects the variability of lower extremity kinematics during walking

10. Thermographic image analysis of friction blisters on the foot
11. The effect of cognitive task on balance in athletes with functional ankle instability
12. The effect of lateral heel and sole wedge insole on balance in athletes with functional ankle instability
13. The effect of textured insole on balance in athletes with functional ankle instability
14. The effect of balance training on gait pattern, postural stabilization and quality of life of students with mental retardation
15. Rollover footwear affects head and trunk posture and kinematics during walking
16. A Randomized Trial evaluating the effects of rollover footwear on pain, function and trunk posture and kinematics in Patients with Lumbar Posterior Derangement
17. Effects of laterally wedged insoles on balance and knee biomechanics in patients with medial compartment knee osteoarthritis
18. The effects of medial heel and sole wedge orthoses on balance in older people

➤ **Patent:**

- A new control system of robotic AFOs

➤ **Projects in Progress:**

- Skin temperature as a measure of shear stress
- A new insole to increase the strength of toe flexors
- The effects of rollover footwear on multi-segment foot and ankle kinematics in adults
- Modelling the interaction of rollover footwear and foot by finite element methods
- Therapeutic roll-over footwear design : a neural network approach
- The effect of cognitive task on foot and ankle biomechanics in athletes with functional ankle instability
- The effect of lateral heel and sole wedge insole on foot and ankle biomechanics in athletes with functional ankle instability
- The effect of textured insole on foot and ankle biomechanics in athletes with functional ankle instability