

ELAINE OWEN MBE MSc SRP MCSP
Clinical Specialist Physiotherapist
email: lugg@talk21.com



Elaine has been practicing since 1974. She has won a number of awards for her work, including an MBE in the Queens New Years Honours list 2013, for Services to Children with Disability, following nomination by colleagues and parents. She has postgraduate qualifications in Lower Limb Orthotic Biomechanics and Clinical Gait Analysis, from the University of Strathclyde and an MSc in Rehabilitation Studies, which included a thesis about orthotic management of neurological conditions, normal gait and standing. She has undertaken the basic and advanced Gait Analysis Instructional Course of the European Society of Movement Analysis of Adults and Children (ESMAC); adult and paediatric Bobath (NDT) training and she has also trained at The Institute for Conductive Education in Budapest. She takes an eclectic view of the management of neurological disabilities but with an emphasis on a biomechanical approach to rehabilitation. From 1983 until 2015, as well as practising clinically, she was also Head of Paediatric Physiotherapy for North West Wales, but now concentrates solely on clinical work and lecturing.

For nearly 20 years Elaine has used a video vector gait laboratory for gait analysis, and orthotic and physiotherapy management of children and adults. She is regularly invited to teach her course and lecture in both the UK and internationally. The course, intended for physiotherapists, orthotists, doctors and other rehabilitation professionals, explores a fresh approach to the observation and analysis of normal standing, stepping and walking with full gait cycles and the management of gait disorders. It introduces a segmental kinematic approach to rehabilitation and gait analysis, as well as a logical and comprehensive system for designing, aligning and tuning orthoses and footwear. While these principles have been developed from mainly paediatric experience they are equally applicable to working with adults.

Elaine has presented at many conferences including Instructional Courses at the American Academy for Cerebral Palsy and Developmental Medicine 2010, 2011, 2012, 2013, 2015; Symposia at The International Society for Prosthetics and Orthotics Triennial World Congress 2004, 2007, 2010, 2013 and 2015. She has also presented at the European Society for Movement Analysis in Adults and Children Annual Meetings 2002, 2004, 2005, 2009, 2014 and the American Academy of Orthotists Prosthetists 2014, 2015, 2016.

She has recently contributed two chapters to the recent publication 'Physical Therapy for Children with Cerebral Palsy; An Evidence Based Approach' and co-authored a chapter for the American Academy of Orthopaedic Surgeons, Atlas of Orthotics and Assistive Devices 4th Edition, 2008. A chapter on orthoses for children with Spina Bifida has also been completed.

As well as the award in 2013 of an MBE, in 2011 she received a Welsh Government Recognising Achievement Award and in 2008 the ISPO UK George Murdoch Prize for her submission 'The importance of being earnest about shank and thigh kinematics especially when using AFOs'.

Publications

- Owen E, Fatone S, Hansen A (2017) The effect of walking in footwear with varying heel sole differentials on shank & foot segment kinematics. P&O International, Accepted for publication.
- Owen E. (2016) Normal Gait Kinematics and Kinetics. Chapter 19 in Physical Therapy for Children with Cerebral Palsy; An Evidence-Based Approach. Editor; Mary Rahlin PT, DHS, PCS, Mary Franklin University, Chicago. Publisher Slack Incorporated.
- Owen E. (2016) A Segmental Kinematic Approach to Orthotic Management: Ankle-Foot Orthosis/Footwear Combination. Chapter 21 in Physical Therapy for Children with Cerebral Palsy; An Evidence-Based Approach. Editor; Mary Rahlin PT, DHS, PCS, Mary Franklin University, Chicago. Publisher Slack Incorporated.
- Owen E and Ivanyi B. (Due publication 2017) Chapter 'Spina Bifida in Children. Directives for Footwear and AFO Footwear Combinations. In: Orthopaedic and Pedorthic Footwear. Assessment, Indications and Treatment plans. Editor Klaas Postema, Netherlands.
- Owen E, Fatone S, Hansen A (2016) The effect of walking in footwear with varying heel sole differentials on shank & foot segment kinematics. AAOP Annual Meeting and Scientific Symposium, Orlando, Florida, USA & OTWorld Congress 2016, Leipzig, Germany.
- Owen E (2014) From stable standing to rock and roll walking (Part 2). Designing, Aligning and Tuning for Standing, Stepping and Gait. Submitted to Association of Paediatric Chartered Physiotherapists Journal
- Owen E (2014) From stable standing to rock and roll walking (Part 1) The importance of alignment, proportion and profiles. Association of Paediatric Chartered Physiotherapists Journal 5 (1): 7-18
- Owen E (2013) A proposed clinical algorithm for dorsiflexion free AFO footwear combinations based on calf muscle length, strength, stiffness and skeletal alignment. ISPO UK NMS Scientific Meeting 2013, BLESMA prize award.
- Owen E (2010) The importance of being earnest about shank and thigh kinematics especially when using AFOs. Prosthetics and Orthotics International Sept 34(3): 254-269.
- Jagadamma K, Owen E, Coultts JF et al (2010) The effects of tuning an Ankle-Foot Orthosis Footwear Combination on kinematics

- and kinetics of the knee joint of an adult with hemiplegia. *Prosthetics and Orthotics International* Sept 34(3):270-276
- Owen E (2009) How should we define the rockers of gait and are there three or four. *Gait & Posture*. 30S:S49
 - Meadows CB, Bowers R, Owen E (2008) Chapter 22 "Biomechanics of Hip Knee and Ankle" In: American Academy of Orthopaedic Surgeons, Atlas of Orthoses and Assistive Devices, Elsevier
 - Jagadamma K, Coutts F, Owen E, Herman J, Yirrell J, Van der Linden M (2007) Effect of the tuning of ankle foot orthoses-footwear combination (AFO-FC) on gait of a hemiplegic patient – a case study. *Physiotherapy* 93(S): S362
 - Owen E (2005) A clinical algorithm for the design and tuning of ankle-foot orthosis footwear combinations (AFOFCs) based on shank kinematics. *Gait & Posture* 22S: S36-S37
 - Owen E (2005) Proposed clinical algorithm for deciding the sagittal angle of the ankle in an ankle-foot orthosis footwear combination. *Gait & Posture* 22S: S38-S39
 - Owen E (2004) "Shank angle to floor measures" and tuning of "Ankle-foot orthosis footwear combinations" for children with cerebral palsy, spina bifida and other conditions. MSc Thesis. Glasgow: University of Strathclyde. Available from lugger@talk21.com
 - Owen E (2004) Tuning of ankle-foot orthosis combinations for children with cerebral palsy, spina bifida and other conditions. Proceedings of ESMAC Seminars 2004. Available from lugger@talk21.com
 - Owen E (2004) The point of 'point-loading rockers' in ankle-foot orthosis footwear combinations used with children with cerebral palsy, spina bifida and other conditions *Gait & Posture* 20S, S86
 - Owen E, Bowers R, Meadows CB (2004) Tuning of AFO-Footwear Combinations for Neurological Disorders. In: Conference Proceedings. International Society for Prosthetics and Orthotics (ISPO) 11th World Congress, Hong Kong: ISPO: 278-279.
 - Owen E (2002) Shank angle to floor measures of tuned 'ankle-foot orthosis footwear combinations' used with children with cerebral palsy, spina bifida and other conditions. *Gait & Posture* 16: Supp 1, S132-S133