

DR. JAYANTH SUNDAR SAMPATH

Consultant - Paediatric Orthopaedic Surgeon

Qualification

MBBS | MSc | FRCSEd | FRCSEd (Tr & Ortho) | CCST UK

Overview

Dr. Jayanth Sundar Sampath is a distinguished paediatric surgeon in Varthur Road, Bangalore. He's currently practicing as a Consultant Paediatric Orthopaedic Surgeon - Manipal Hospital Varthur Road, with over two decades of international experience across India, the United Kingdom, and the United States. He specialises in the diagnosis and treatment of complex bone, joint, and movement disorders in children, combining advanced surgical expertise with compassionate, multidisciplinary care. His key areas of focus include cerebral palsy and neuromuscular disorders, limb deformity correction, paediatric trauma, developmental hip conditions, clubfoot, and osteogenesis imperfecta. A graduate of Madras Medical College, Dr. Sampath completed his postgraduate orthopaedic training in the UK and pursued advanced fellowships in Paediatric Orthopaedics in Delaware, USA, and in the UK. His extensive training abroad under leading orthopaedic surgeons helped him gain deep expertise in gait analysis, hip preservation surgery, and reconstructive techniques for limb deformities. He holds dual Fellowships from the Royal College of Surgeons of Edinburgh (FRCSEd and FRCSEd – Trauma & Orthopaedics) and earned his

Certificate of Completion of Specialist Training (CCST) in 2004, making him among the few Indian surgeons with a complete UK specialist accreditation in Paediatric Orthopaedics. Before returning to India, Dr. Sampath served as Consultant Paediatric Orthopaedic Surgeon in Liverpool, at one of Europe's leading paediatric centres. During his tenure, he became the first surgeon in the UK to use the Fassier-Duval Rod for limb deformity correction in children with Osteogenesis Imperfecta and introduced the 8-plate guided growth technique for correcting knee flexion contractures. His contributions have had a lasting clinical impact in paediatric orthopaedic innovation and surgical practice. On returning to India, Dr. Sampath established PRAGATI at Rainbow Children's Hospital in Bengaluru — South India's first comprehensive centre for the diagnosis and treatment of movement disorders in children. The centre brings together paediatric orthopaedics, physiotherapy, occupational and speech therapy, orthotics, 3D gait analysis, and psychology under one roof. He also founded the Bangalore Institute of Movement Research and Analysis (BIMRA), India's first 3D gait and motion analysis laboratory, setting a new benchmark in evidence-based paediatric orthopaedic care. Dr. Sampath has authored over 30 publications in international peer-reviewed journals, contributing extensively to the global body of research in developmental dysplasia of the hip (DDH), clubfoot management using the Ponseti method, cerebral palsy, gait disorders, and paediatric bone diseases. His research on the use of CRP in differentiating septic arthritis from transient synovitis remains widely cited. He also serves as Editor of the International Journal of Paediatric Orthopaedics and is an Executive Council Member of the Paediatric Orthopaedic Society of India. His ongoing research includes the development of novel orthopaedic implants for paediatric limb deformity correction, for which he holds a US patent (US20150257803A1). Dr. Sampath's work reflects a deep commitment to advancing paediatric musculoskeletal care through innovation, education, and clinical excellence. At Manipal Hospital Varthur Road,

Dr. Jayanth continues to lead in paediatric orthopaedics with a multidisciplinary, child-centric approach. He is fluent in Kannada, English, and Hindi, enabling him to communicate effectively with families from diverse backgrounds. Known for his precision, empathy, and holistic outlook, he stands as a trusted leader in transforming paediatric orthopaedic care in India.

Fellowship & Membership

- Paediatric Orthopaedic Fellowship 01/08/2003 to 31/07/2004.
- Booth Hall and Pendlebury Children's Hospitals, Manchester.
- Clinical Fellow in Paediatric Orthopaedics A. I. DuPont Hospital for Children Wilmington, Delaware, USA 01/08/02 to 31/07/03.
- The Alfred I. Dupont Hospital for Children has a long tradition of excellence and innovation in Paediatric Orthopaedics. The department comprised of 11 full-time attending paediatric orthopaedic surgeons, 3 clinical fellows, 8 residents, 5 research fellows and 3 physician assistants. The training programme is recognised for residency and fellowship training in the United States by the Accreditation Council for Graduate Medical Education (ACGME).

Field of Expertise

- Paediatric Orthopaedics
- Cerebral Palsy and Neuromuscular Disorders
- 3D Gait Analysis
- Limb Deformity Correction and Reconstruction
- Paediatric Trauma
- Clubfoot and Developmental Dysplasia of the Hip (DDH)
- Osteogenesis Imperfecta and Metabolic Bone Disorders

Languages Spoken

- Kannada
- English
- Hindi

Awards & Achievements

- In 2020, I established PRAGATI at Rainbow Children's Hospital, Bangalore - the first comprehensive centre in South India for the diagnosis and treatment of movement disorders in children, encompassing services such as Paediatric Orthopaedics, physiotherapy, occupational therapy, speech therapy, orthotics, 3D Gait Analysis and psychology services.
- Editor, International Journal of Paediatric Orthopaedics (Official Journal of Paediatric Orthopaedic Society of India).
- Executive Council Member, Paediatric Orthopaedic Society of India.
- First surgeon in the UK to employ the Fassier-Duvall Rod for correction of limb deformity in children with Osteogenesis Imperfecta.
- Introduced the 8-plate device for guided growth correction of knee flexion contractures in the UK.
- I am developing a novel implant for the correction of limb deformities in children in collaboration with a North American manufacturer. US Patent was recently granted for the device (US20150257803A1).

Talks & Publications

- Sampath JS and Paton RW. The use of ultrasound in

determining the initiation of treatment in instability of the hip in neonates. J Bone Joint Surg Br. 2000; 82(4): 619–20. Widely cited; foundational paper in DDH (Developmental Dysplasia of the Hip) screening.

- Sampath JS, Deakin S, Paton RW. Splintage in developmental dysplasia of the hip: how low can we go? J Pediatr Orthop. 2003; 23(3): 352–5. Influential in defining safe positioning in DDH management.
- Changulani M, Garg N, Sampath JS, Bruce CE, Bass A, Nayagam SN. Treatment of idiopathic club foot using the Ponseti method: Initial experience. J Bone Joint Surg Br. 2006; 88(10): 1385–7. Key contribution to validation of Ponseti method in the UK.
- George HL, Unnikrishnan PN, Garg NK, Sampath JS, Bruce CE. Unilateral foot abduction orthosis: is it a substitute for Denis Browne boots following the Ponseti technique? J Pediatr Orthop B. 2011; 20(1): 22–5. Important follow-up study refining post-Ponseti bracing.
- Singhal R, Perry DC, Khan FN, Cohen D, Stevenson HL, James LA, Sampath JS, Bruce CE. The use of CRP within a clinical prediction algorithm for differentiation of septic arthritis and transient synovitis in children. J Bone Joint Surg Br. 2011; 93(11): 1556 61. High clinical impact; diagnostic guidance still in use.
- Perry DC, Tawfiq SM, Roche A, Shariff R, Garg NK, James LA, Sampath JS, Bruce CE. The association between clubfoot and developmental dysplasia of the hip. J Bone Joint Surg Br. 2010; 92(11): 1586–8. Influential epidemiological study shaping screening protocols.
- Leet AI, Sampath JS, Scott CI Jr, MacKenzie WG. Cervical spinal stenosis in metatropic dysplasia. J Pediatr Orthop. 2006; 26(3): 347–52. Significant contribution in skeletal dysplasia literature.
- Chan G, Sampath J, Miller F, Riddle EC, Nagai MK, Kumar SJ. The role of the dynamic pedobarograph in assessing treatment of

cavovarus feet in children with Charcot-Marie-Tooth disease. J Pediatr Orthop. 2007; 27(5): 510–6. Pioneering functional assessment study in neuromuscular deformities.

- Bass A, Holmes G, Sampath J, Trinca D. Impact of structured physiotherapy protocols on gait outcomes after multi-level surgery in cerebral palsy. Gait & Posture. 2009; 30(S2): S101. Core evidence linking orthopaedic surgery and gait outcomes.
- Roche AJ, Davies GR, Sampath J. A hip resurfacing implant in an adolescent with cerebral palsy. J Pediatr Orthop B. 2012; 21(2): 167–169. Unique case expanding hip salvage approaches in CP.
- Mohan R, Unnikrishnan PN, George H, Bass A, Dhotare SVR, Sampath JS. Is ferritin estimation and optimisation important in cerebral palsy children undergoing SEMLS? J Orthop. 2018; 16(1): 1–4. Demonstrates holistic preoperative optimization in CP surgery.
- Ellur V, Kumar G, Sampath JS. Treatment of Chronic Hematogenous Osteomyelitis in Children With Antibiotic Impregnated Calcium Sulphate. J Pediatr Orthop. 2021; 41(2): 127–131. Contemporary, clinically relevant paper; frequently referenced for infection management.
- Sampath JS, Kumar G. Pulseless Supracondylar Fracture of the Humerus: Guidelines for Management. J Orthop Assoc South Indian States. 2022; 19(S-1): S68–S76. Regional guideline-style paper, important for emergency management.
- Sampath JS, Nagda T. Understanding the Biomechanics of Lever Arm Disorders in Cerebral Palsy.
- Int J Paediatr Orthop. 2024; 10(1): 9–13. Recent conceptual review; strengthens academic leadership in CP biomechanics.
- Zenios M, Sampath J, Cole C, Khan T, Galasko CS. Operative treatment for hip subluxation in spinal muscular atrophy. J Bone Joint Surg Br. 2005; 87(11): 1541–4. Important paper for complex neuromuscular hip disorders.
- Developmental dysplasia of the hip (DDH) – 3 major papers

- Clubfoot / Ponseti method – 2 key contributions
- Cerebral palsy & gait analysis – 3 major works
- Neuromuscular & skeletal dysplasia disorders – 2
- Infection and trauma management – 2
- Recent conceptual & guideline papers – 2