

## Leo Thomas Donnan

Clinical Associate Professor University Melbourne  
Royal Children's Hospital  
Melbourne, Australia

### Details

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Business	Victorian Orthopaedics 64 Chapman Street North Melbourne VIC 3051 Australia  Phone: +61 3 9328 5244 Fax: +61 3 9329 4969 email: leo.donnan@vicortho.com.au
Website	VicOrtho.com.au
Citizenship	Australian
Date of Birth	16th of December, 1961 Melbourne
Married	Susan Gibb, Paediatrician, Royal Children's Hospital

### Profile

I graduated from the University of Melbourne in 1986 and trained in Orthopaedic Surgery obtaining my Fellowship in the College of Surgeons in 1994. During the following two years undertook basic research into the regulation of osteoblastic differentiation at the St Vincent's Institute of Medical Research, before accepting a Senior Lecturer position in the University of Sheffield Department of Surgery at the Sheffield Children's Hospital, UK.

In Sheffield I actively advanced the limb reconstruction service and developed an interest in education techniques producing a complete syllabus of video based teaching material providing a core program for education of medical students and surgical trainees in paediatric orthopaedics.

In 2008 I undertook advanced training in limb reconstruction at the Russian Scientific Institute in Kurgan Siberia and also at various European Institutes. During this time published on techniques for deformity correction and in particular techniques related to fully implantable intramedullary lengthening devices, correction of severe foot deformities and deformity correction. On return to Melbourne I was appointed to a consultant position at The Royal Children's, St Vincent's and Royal Melbourne Hospitals and became Director of Orthopaedics at The Royal Children's Hospital in 2004.

At The Royal Children's Hospital established the Limb Reconstruction Service and currently host the International Fellowship in this field, which cover the areas of limb length discrepancy, congenital and

acquired deformity, oncology, bone dysplasia and osteoarticular infection.

As Director of Orthopaedics my primary focus is on improving service delivery by exploring new models of care, particularly relating to the outpatient services. The development of the advanced practitioner in paediatric orthopaedics for physiotherapists has become an integral part of orthopaedic services delivered at The Royal Children's Hospital. In this model was now become an advanced physiotherapy practising certificate and managed by the University of Melbourne.

In 2006 I was appointed Chief of Surgery (Executive Director Surgical Services) at The Royal Children's Hospital and was made Clinical Associate Professor University of Melbourne. In the position of Chief of Surgery I have represented the hospital in the Department of Health sponsored process for integrated paediatric services and am a member of the State Trauma Committee. Within the hospital I have advocated for change, particularly in relation to peri-operative services in developing the "theatre access project" which explored all areas relating to surgical service delivery for both patients and staff. This has naturally grown into a system wide approach presented as "the way we work together" for the division of surgery.

I had primary responsibility for the design and delivery of theatre and peri-operative services in the new Royal Children's Hospital and have lead the development of integrated surgical tracking and patient safety systems including the introduction of patient safety systems into the operative rooms.

Continuing in my role as an academic surgeon I have over the last eight years developed a significant interest and expertise in the area of medical education. The use of multi media and in particular animation has led to the development of a systematic approach to informed consent for patients, that has been tested both in the private and public settings and developed into a robust delivery system that can monitor patient interaction and response to the material presented. A number of grants have been received for the development of patient education material and through this research I and the other researchers, have been able to prove conclusively that the approach that we have undertaken can positively influence patients' understanding of treatment and ultimately improve their outcome from surgery.

I have developed an online educational platform for Paediatric Orthopaedics and recently entered into a educational agreement with the British Limb Reconstruction Society to provide, expand and test the deliver of online surgical training

In 2022 we received an MRFF grant of 2.4 million dollars to establish the VicHip registry and develop a program of research for hip dysplasia to improve the diagnosis, imaging and treatment of a condition that affects children, adolescents and young adults. In 2024 I received a Foundation Grant of 1.6 million dollars for the development of research streams within the department of orthopaedics.

I have completed a Master of Surgical Education, University of Melbourne am the lead surgeon in paediatric oncology and limb reconstruction, previous Director of Surgical Training and current senior examiner in orthopaedics for RACS

## Qualifications

M.B.B.S. (Melb)	December	1986
F.R.A.C.S. Part 1	July	1989
F.R.A.C.S. Part 2 (orth)	May	1994
FAOrthA	October	2000
MDHS	April	2018

## Positions Held

2013	President of the Australian Paediatric Orthopaedic Association	Australian Orthopaedic Association Sydney, NSW
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2017	Treasurer of Asia Pacific Paediatric Orthopaedic Association	Kuala Lumpur Malaysia
2017	Secretary of Australian Paediatric Orthopaedic Association	Australian Orthopaedic Association Sydney, NSW

### Current Appointments

2020 - current	Examiner Orthopaedics	Royal Australasian College of Surgeons
2023 – current	Stream Director Orthopaedics	Murdoch Children's Research Centre The Royal Children's Hospital Flemington Road Parkville Vic 3052
1999 – current	Consultant Surgeon	The Royal Children's Hospital Flemington Road Parkville Vic 3052
2023 - current	President of the Australian Paediatric Orthopaedic Association	Australian Orthopaedic Association Sydney, NSW
2023 - current	President of the Asia Pacific Paediatric Orthopaedic Association	Hong Kong

### Publications

#### **The Orthopaedic Lever: A Simple Method to reduce Unstable Posteriorly Displaced or Angulated Proximal Femoral Fractures**

L.T.Donnan

Australian and New Zealand Journal of Surgery, (1996) 66, 397-399

#### **Idiopathic Chondrolysis of the Hip**

L.T.Donnan and B Einoder

Australian and New Zealand Journal of Surgery, (1996) 66, 569-571

#### **The Paediatric Musculoskeletal Examination**

L.T.Donnan

Patient Skills: Teaching Video (1998)

University of Sheffield Television Production Unit

#### **The Paediatric Musculoskeletal Examination**

L.T.Donnan

Examination: Teaching Video (1998)

University of Sheffield Television Production Unit

#### **The Paediatric Musculoskeletal Examination**

L.T.Donnan

Observational Gait Analysis: Teaching Video (1999)

University of Sheffield Television Production Unit

#### **Posterior Dislocation of the Humeral Head in Association with Obstetrical Palsy**

I Torode and L.T.Donnan

Journal of Pediatric Orthopaedics, (1998), 18:611-615

**Monolateral Fixators in Paediatric Limb Reconstruction**

L.T.Donnan and M Saleh

Current Orthopaedics, (1998), 12:159-166

**Gradual Distal Fibular Transport Using External Fixators For Ankle Deformities In Children**

R Natarajan, LT Donnan, M Saleh

The Journal of Bone and Joint Surgery-british Volume 82, 76

**Assessment of Ilizarov Correction of Clubfoot Deformity Using Pedobarography**

R Hutchinson, R.P.Betts, L.T.Donnan. M.Saleh

Journal of Bone and Joint Surgery, B (2001), 83:1041-1045

**Radiographic assessment of bone formation in tibia during distraction osteogenesis**

L.T. Donnan, M. Saleh, A.S.Rigby, A.McAndrew

Journal of Pediatric Orthopaedics, B (2002), 22:645-651

**Acute Deformity Correction And Simultaneous Lengthening With A Monolateral Fixator**

L.T. Donnan, M. Saleh, A.S.Rigby

Journal of Bone and Joint Surgery, B (2003) 85B:254-260

**Gradual femoral lengthening with the Albizzia intramedullary nail**

J M Guichet, B Deromedis, L T Donnan, G Peretti, P Lascombes, F Bado

Journal of Bone and Joint Surgery, A (2003) 85:838-848

**Medial temporal lobe dysgenesis in hypochondroplasia.**

P Kannu, I M Hayes, S Mandelstam, L Donnan, R Savarirayan.

Am J Med Genet A. (2005) Nov 1; 138(4): 389-91

**High Recurrence after calf lengthening with the Ilizarov apparatus for the treatment of spastic equinus foot deformity**

R Biedermann, J Lair, C Bach, S Frischhut, G Kaufmann, L T Donnan

Journal of Pediatric Orthopaedics(B) (2007) 16(2):125-128

**Complications and patient satisfaction after periacetabular pelvic osteotomy**

Biedermann R, Donnan L, Gabriel A, Wachter R, Krismer M, Behensky H

Int Orthop. (2007) 32(5):611-617

**The radiographic classification of the bone-screw interface in paediatric tibial lengthening**

McAndrew AR, Saleh M, Rigby AS, Donnan LT.

J Pediatr Orthop B. (2007) Sep;16(5):305-11

**Metatropic dysplasia: clinical and radiographic findings in 11 patients demonstrating long-term natural history.**

Kannu P, Aftimos S, Mayne V, Donnan L, Savarirayan R.

Am J Med Genet A. (2007) Nov 1;143(21):2512-22

**Peri-acetabular external fixation for hip disease: an anatomical study**

Brown S, Lasrado I, Donnan L.

Strat Traum Limb Recon. (2007)Dec.;2(2-3):69–75.

**Ligamentum teres tenodesis in medial approach open reduction for developmental dysplasia of the hip**

Bache E, Graham K, Dickens D, Donnan L, Johnson M, Nattrass G, O'Sullivan M, Torode I

J Pediatr Orthop B. (2008) Sep;28(6):

**Technology Mediated Learning in Healthcare: When a Picture Paints a Thousand Words**

Donnan L, Beischer A, Cornoiu A, De Steiger R, Graves S, Richardson M.

Health Informatics Society of Australia.(2008) Aug: 1-5

**The Practical use of Multimedia Technology to Facilitate the Education of Patients with Plantar Fasciitis**

Beischer AD, Clarke A, De Steiger RN, Donnan L, Ibuki A, Unglik R, FAS, Feb, (2008)

**Developmental Dysplasia of the Hip**

Donnan L, Angliss R, Vu M  
Australian Doctor, (2008), Oct

**Limb Reconstruction using circular frames in children and adolescents with Spina Bifida**

S.P Kelly, C.E Bache, H. Kerr Graham, L.T Donnan  
J Bone Joint Surg Br (2010) vol. 92 (7) pp. 1017 1022

**Indication of immune tolerance using rituximab in a child with severe haemophilia B with inhibitors and anaphylaxis to factor IX**

C. Barnes, A. Davies, J. Furmedge, B. Egan, L. Donnan, P. Monagle  
World Federation of Hemophilia (2010) pp. 840-841.

**Multimedia patient education to assist the informed consent process for knee arthroscopy.**

Cornoiu A, Beischer AD, Donnan L, Graves S, de Steiger R.  
ANZ J Surg. (2011) Mar.;81(3):176–80.

**Clinical value of the Taylor Spatial Frame: a comparison with the Ilizarov and Orthofix fixators**

D Dammerer, K Kirschbichler, L Donnan, G Kaufmann, M Krismer, and R Biedermann  
Journal of Children's Orthopaedics: 2011;10.1007/s11832-011-0361-3

**Law, Ethics and Communication. A guide for giving information and obtaining informed consent for central venous access devices**

Delany C, Gillam L, Spriggs M, Donnan L, McDougall R, Nightingale M  
Children's Bioethics Centre, Royal Children's Hospital 2012

**Rupture of the extensor pollicis longus tendon following dorsal entry flexible nailing of radial shaft fractures in children**

B Brooker, C Harris, L Donnan, K Graham  
Journal of Children's Orthopaedics: 2014;8(4):353-357

**What does it take to walk normally with high femoral neck anteversion?—A case study**

M. Sangeuxa,,C. Harris, L. Donnan, H.K. Graham  
Gait & Posture 2014;39:S54

**Septic arthritis in children**

C Wall, L Donnan  
Australian family physician 2015; 44 (4), 213

**Ilizarov tibial lengthening in the skeletally immature**

L Donnan, C Harris, I Torode, C Heitd  
Bone and Joint Surgery 2016;98-B:1276-1282

**Paediatric Foot Mass**

M Bouchard, M Bartlet, L Donnan  
Journal of the American Association of Orthopaedic Surgeons 2017; 25(1):32-41

**Treatment of severe coxa vara and shepherd's crook deformity in patients with polyostotic fibrous dysplasia using a new retrograde intramedullary nail**

F Hefi, L Donnan, A Krieg  
Journal of Children's Orthopaedics 2017;11:64–70 The impact of web-based clinical practice guidelines on paediatric fracture clinics  
M Camp, J Barnes, M Damany, L Donnan  
Australian and New Zealand Journal of Surgery 2017;

**Preoperative Assessment for Complex Lower Limb Deformity**

L Donnan  
Journal of Paediatric Orthopedics 2017;37:S12–S17

**Total hip arthroplasty in patients 16 years of age or younger.**

S K Van de Velde, B Loh, L Donnan  
Journal of Children's Orthopaedics 2017;11

**Lateral condyle fractures of the humerus in children – Does fixation type matter?**

R Ganeshalingam, A Donnan, O Evans, M Hoq, M Camp, L Donnan  
Bone and Joint Surgery 2017

**Osteosarcoma in a Child Below 2 Years of Age: Case Report and Review of the Literature.**

EM Pascoe, M Free, PS Mackie, L Donnan, M O'Sullivan, MJ Sullivan  
Journal of pediatric hematology/oncology

**Syme Amputation: Function, Satisfaction, and Prostheses.**

S Morrison, P Thomson, U Lenze, L Donnan.  
Journal of Pediatric Orthopedics 2019

**Enhancing Value and Uptake for Whole-Population Cohorts of Children and Parents: Methods to Integrate Registries into the Generation Victoria Cohort**

Valerie Sung, Katrina Williams, Ella Perlow, Yanhong Jessica Hu, Susannah Ahern, Joanne M. Said, Bill Karanatsios, John L. Hopper, John J. McNeil, Leo Donnan, Sharon Goldfeld and Melissa Wake  
Children, 2021

**The Gait Outcomes Assessment List for Children with Lower-limb Difference (GOAL-LD): assessment of reliability and validity**

Alison L Griffith, Leo T Donnan, Christopher A Iobste, Simon P. Kelley, Maryse Bouchard, Unni G Narayanan  
Journal of Paediatric Orthopedics, 2021

**Enhancing Value and Uptake for Whole-Population Cohorts of Children and Parents: Methods to Integrate Registries into the Generation Victoria Cohort.**

Sung Valerie, Williams Katrina, Perlow Ella, Hu Yanhong, Ahern Susannah, Said Joanne, Karanatsios Bill, Hopper John, McNeil John, Donnan Leo, Goldfeld Sharon, Wake Melissa  
Children 8, 285 2021

**Pedicled fibular transfer for biologic knee extensor tendon reinsertion following proximal tibial resection in pediatric osteosarcoma: Long-term outcomes.**

Alexander Will, Overland Joseph, Thomason Pamela, O'Sullivan Mark, Donnan Leo, Coombs, Christopher  
Microsurg 2021

**Intramedullary fixation of double barrel vascularised fibula grafts with subsequent lengthening for reconstruction of the distal femur in patients with osteosarcoma**

Ulrich Lenze, Mark O'Sullivan, Dave McCombe, Christopher Coombs, Leo Donnan  
Journal of Childrens Orthopaedics 2022

**<sup>18</sup>F-FDG PET and PET/CT as a diagnostic method for Ewing sarcoma: A systematic review and meta-analysis.**

Seth, Nimish Seth, Ishith Bulloch, Gabriella Siu, Adrian Hang, Yue Guo, Allen Chatterjee, Rukmini, Mac Manus Michael, Donnan, Leo  
Pediatr Blood Cancer 69, e29415 2022

**Paediatric Hip Ultrasound: the interpretation of quality, geometry and morphology**

Matthew Donnan, Nathan Anderson, Monsral Hoq, Leo Donnan  
Bone and Joint Journal 2023

**Neonatal clinical examination and selective ultrasound screening do not exclude hip dysplasia: a retrospective cohort study**

Mitchell David Johnson, Carl Kuschel, Leo Donnan

**Comparison of brace to observation in stable, radiological developmental dysplasia of the hip: a protocol for a global multicentre non-inferiority randomised trial.**

Zomar BO, Bone JN, Nguyen V, Mulpuri K, Kelley S; GHD Study Group; Schaeffer EK  
BMJ Open 2024 Jul 8;14(7):e084738. doi: 10.1136/bmjopen-2024-084738.

## Book Chapters

### **Bone Biology**

K W Ng , E Romas, L.Donnan, D. Findlay  
Bailliere's Clinical Endocrinology and Metabolism Vol 11 No1 pp1-22 1997

### **The Acute Correction of Deformity by Means of Monolateral External Fixation**

L T Donnan & M Saleh  
Orthofix: External Fixation in Trauma and Orthopaedics  
Edited by G. De Bastiani, A.G. Apley, and A.A.J. Goldberg  
Springer-Verlag London, UK

### **Essential Paediatric Orthopaedic Decision Making A Case-Based Approach**

L Donnan  
Edited by Benjamin Joseph, Selvadurai Nayagam, Randall Loder  
ISBN 9780367553623  
Published June 28, 2022 by CRC Press

## Awards

### **Victorian Health Care Award 2007**

Innovation in Workforce Design

### **Royal Children's Hospital Team Award 2010**

Craniophagus Twins Separation

### **Victorian Health Care Award 2010**

Craniophagus Twins Separation

### **Victorian Health Care Award 2011**

Developmental Dysplasia e-Learning Program

### **Patrick Waldon Humanitarian Award 2020**

Children First Foundation

### **Paul Harris Fellow 2023**

Rotary International