



Expert Report

Est. 2004

Dr Andrew Short Career Highlights

Over 1000 Reports for the Courts

Since 2004, I have been asked for my opinion on over 1000 matters for the courts in the jurisdictions of New South Wales, Victoria, Australian Capital Territory, South Australia, Tasmania and Western Australia. Also in Copenhagen in Denmark and Seattle in the United States of America.

Workplace Injuries

I invented a new running rail to prevent injuries to jockeys which is installed at Flemington and many other racecourses in Victoria. For this endeavour I won the Worksafe Award in 2009.

Vehicle Collisions

I was a technical presenter on a television program on a car crash into glass on the National Geographic Channel. This can be view here:

<http://www.natgeotv.com/ca/the-indestructibles/videos/crash-test>

<http://www.natgeotv.com/ca/the-indestructibles/videos/dangerous-impact>

CCTV Analysis

I studied photogrammetry for my Doctorate at Oxford University, England. I use the mathematics from this process and apply it to CCTV analysis. I have conducted over 60 CCTV analyses, mainly for NSW Police.

Education

2020: Northwestern University: Human Factors in Collisions by Jeff Muttard

- I learnt how to apply the 50th percentile reaction times to different events and types of collisions

5 2005: SAE & Victoria Police - Technical Traffic Accident Scene Investigation course by Peter Bellion

- I learnt how to properly collect data from a scene and how to reconstruct what happened at the site

2002-2004: Post Doctorate in Accident Statistics, MUARC, Monash University, Australia including Project work:

- 10 • Studied push pull forces for nurses at age care facilities: effect of glare
- STARS tractor assessment program - draft
- Conducted research playground tanbark
- Examined arm fractures in playgrounds
- Learned to program in MADYMO fluently
- 15 • Experienced human factors work and crash analysis
- Undertook field work

1996-2002: Doctor of Philosophy in Engineering Science at University of Oxford, England

- 20 • First two years at the robotics (Medical Imaging) laboratory – image processing, photogrammetry
- Second two years at the Oxford Orthopedic Engineering Centre (OOEC) developing three image processing techniques to track the progress of knee replacements

1995-96: M.Sc. in Biomedical Systems at Imperial College, London

- 25 • Paper I Anatomy, Systems Physiology, Neurobiology, Biophysics, Communication Theory and Networking
- Paper II Advanced Signal Processing, Digital Image Processing, Radiation Physics and Biology, Neural Networks and Physiological Optics
- Paper III Mechanics in Medicine, Introductory Medical Imaging
- Paper IV Physiological Monitoring & Safety, Biosensors, Bioengineering, Advanced Medical
- 30 Imaging

1990-95: B.A. (Hons) in Natural Sciences at Trinity College, Dublin

- Maths – Calculus I and II, integrating singularities, green's function etc. Textbook: Advanced Engineering mathematics by Kreysig...
- Chemistry – Physical Chemistry, Molecular Chemistry
- 5 • Physics - Electromagnetic Waves, Magnetism, electronics and Materials Science
- Major in Physics – Relativity, Nano-structures, quantum mechanics, materials science, nuclear physics, particle physics and some courses in theoretical physics.
- During one summer I worked as research assistant in Professor Werner Blau's Optoelectronics Laboratory where I found the solvent for the material to make an Optical Switch.

10 Professional Experience

- Jan 2004 – present: Consultant Biomechanics & Injury Expert at Expert Report
- 2006 – 2016: Lecturer in Forensic Biomechanics and Injury, University of Melbourne (I remain an honorary fellow)
- Nov 2002 – Dec 2004: Biomechanics Research Fellow at Monash University

15 Professional Associations

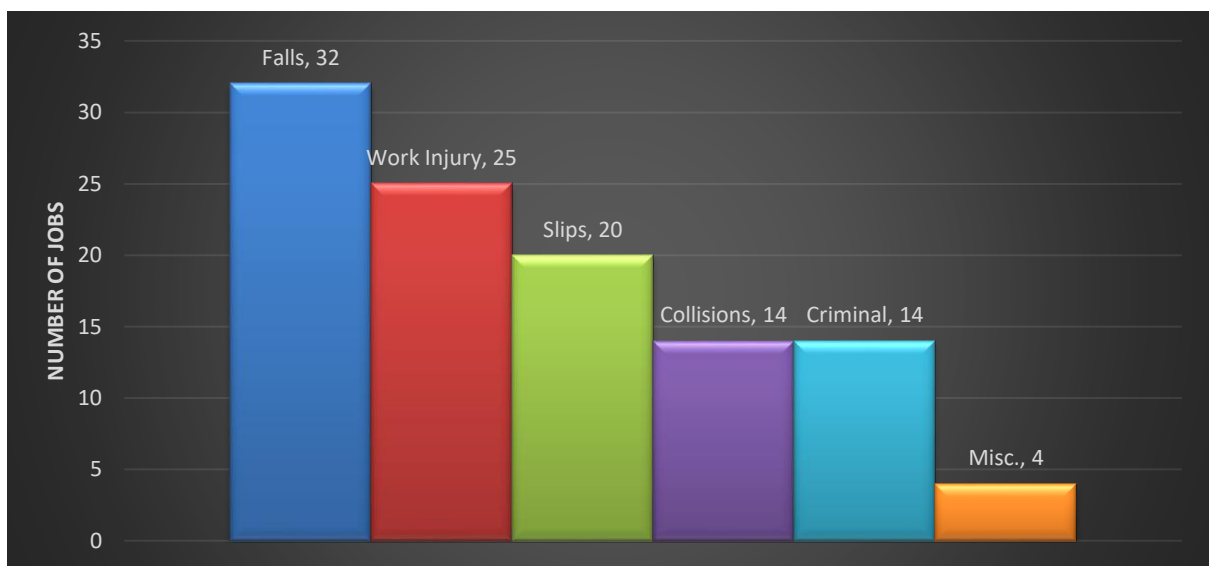
- American Standards Committee Member ASTM Committee F08 (Since 2015)
- Member of the Australian Academy of Forensic Sciences (Since 2012)
- Secretary of the Forensic Engineers Society of Australia (~2006-2013)
- 20 • Bio-medical Engineering Recognition, Engineers Australia (2005)

Prizes and Achievements

- Expert on a National Geographic TV Show 2011
- Worksafe Award October 2009
- 25 • Won the Oxford-Cambridge Men's Lightweight boat race in Nephthys at Henley in 2002
- Academic Scholarships: British Government EPSRC scholarship 1996, Nuffield prize Oxford 1996, Scholarship from the University of London 1995, Erasmus Exchange 1992
- Built prototype Optical Switch 1991

Over 1000 Court Reports

Since 2004, I have been asked for my opinion on over 1000 matters for the courts in the jurisdictions of New South Wales, Victoria, Australian Capital Territory, South Australia, Tasmania and Western Australia, Copenhagen in Denmark and Seattle in the United States of America. The type of reports I have completed in the first three quarters of 2020, are set out in the bar chart below.





Publications

Book Chapters 2, Patents 2, Original Articles 7¹., Proceedings 14


¹ **A. Short**, *An Automatic Calibration Method for RSA X-Rays*, J Bone Joint Surg Br Proceedings 86-B: 421-a.

Curriculum Vitae of Dr Andrew Short 5 November 2020



Andrew Short 

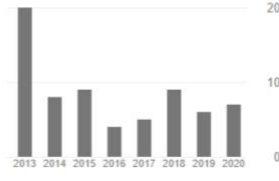
Oxford Orthopaedic Engineering
Verified email at expertreport.com.au











<input type="checkbox"/> TITLE	CITED BY	YEAR
<input type="checkbox"/> Ten-year <i>in vivo</i> wear measurement of a fully congruent mobile bearing unicompartmental knee arthroplasty AJ Price, A Short, C Kellett, D Beard, H Gill, H Pandit, CAF Dodd, ... The Journal of bone and joint surgery. British volume 87 (11), 1493-1497	408	2005
<input type="checkbox"/> Ten-year <i>in vivo</i> wear measurement of a fully congruent mobile bearing unicompartmental knee arthroplasty AJ Price, A Short, C Kellett, D Beard, H Gill, H Pandit, CAF Dodd, ... The Journal of bone and joint surgery. British volume 87 (11), 1493-1497	108	2005
<input type="checkbox"/> The <i>in situ</i> performance of playground surfacing: implications for maintenance and injury prevention S Sherker, A Short, J Ozanne-Smith International journal of injury control and safety promotion 12 (1), 63-66	19	2005
<input type="checkbox"/> Estimating bicyclist into pedestrian collision speed A Short, R Grzebieta, N Arndt International journal of crashworthiness 12 (2), 127-135	13	2007
<input type="checkbox"/> Numerical analysis of real-world cyclist crashes: impact speed, collision mechanism and movement trajectories TY Pang, H Sakeran, A Short, AS McIntosh, G Reznitzler, K Thai Proceedings of Australasian Road Safety Research, Policing and Education ...	9	2008
<input type="checkbox"/> Visual sports training apparatus and method ALB Short US Patent 7,217,164	5	2007
<input type="checkbox"/> Interface design: the next major advance in road safety G Reznitzler, S Richardson, M Shifman, A Short, DV Experts, ... Journal of the Australasian College of Road Safety 20 (2), 14-23	2	2009
<input type="checkbox"/> Motor vehicle exhaust gassing suicides in Australia: an Update VH Routley, A Short, J Ozanne-Smith Monash University		2004
<input type="checkbox"/> and sub-title: Cerebro-spinal Injury During Competitive Dive-in A Short, J Ozanne-Smith		

Cited by [VIEW ALL](#)

	All	Since 2015
Citations	156	40
h-index	5	4
i10-index	3	1



Co-authors [EDIT](#)

-  David J Beard
University of Oxford >
-  Hemant Pandit
Nuffield Department of Orthopae... >
-  Andrew Price
Professor of Orthopaedic Surger... >
-  Richie (H.S.) Gill
Chair of Healthcare Engineering... >
-  Professor (Em.) Raphael Grzebieta
University of New South Wales &... >
-  Dr. Andrew McIntosh
ACRISP & School of Engineerin... >
-  Toh Yen Pang
Senior Lecturer, RMIT University >
-  Jonathan Rees
Professor of Orthopaedic Surgery >

Book Chapters

- Short A., Cubitt L. (2018) Slips, Trips, and Falls. In: Müller B., Wolf S. (eds) Handbook of Human
5 Motion. Springer ISBN 978-3-319-14419-1

https://link.springer.com/referenceworkentry/10.1007/978-3-319-14418-4_103

- Chapter 140: for 'Expert Evidence' July 2008; Ed. Freckelton I. and Selby H., Thomson Reuters, NSW,
Australia, Update 46, 2008 "Traffic Accidents Investigation Analysis and Reconstruction", G.
10 Reznitzer, S. Richardson, **A. Short** and T. Orton