

## **CURRICULUM VITAE**

**DR WILLIAM L. WALTER**

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**YEAR OF BIRTH** 1967

**PRACTICE ADDRESS** Specialist Orthopaedic Group  
Suite 1.08, Mater Clinic, 3-9 Gillies Street,  
North Sydney, NSW, 2060, Australia.

**CONTACT** Tel: +61(0)2 8920 3388  
Fax: +61(0)2 8920 3366  
E-mail: [bill.walter@hipknee.com.au](mailto:bill.walter@hipknee.com.au)  
Web: [www.billwalter.com.au](http://www.billwalter.com.au)

### **QUALIFICATIONS**

1993 MBBS, University of Sydney  
2001 Fellowship of the Royal Australian College of Surgeons  
2006 PhD Surgery, University of New South Wales

### **MEDICAL REGISTRATION**

15<sup>th</sup> Dec. 1992 New South Wales Medical Board,  
Registration No. MPO 289529

### **APPOINTMENTS**

2000 – Current Visiting Medical Officer, Mater Hospital, Sydney.  
2009 – Current Associate Professor, Notre Dame University.

### **ADMINISTRATIVE COMMITTEES**

2005 – Current Australian Orthopaedic Association Board of Studies,  
Mater Representative.  
2010 Associate Professor - Clinical Discipline Leader, Surgery,  
Notre Dame University.  
Associate Professor – University of NSW.

## PROFESSIONAL MEMBERSHIPS

- Royal Australasian College of Surgeons “FRACS”
- Australian Orthopaedic Association
- American Association of Hip and Knee Surgeons
- Australian Medical Association
- Australian Society of Orthopaedic Surgeons
- Arthroplasty Society of Australia
- International Society for Technology in Arthroplasty

## ADVANCED SURGICAL TRAINING

1993	St Vincent's Hospital & Sydney Hospital	Intern
1994	Gosford District Hospital	Resident
1995	Gosford District Hospital	Orthopaedic Registrar
1996	The Canberra Hospital	Orthopaedic Registrar
1997	Orange Base Hospital & Westmead Hospital	Orthopaedic Registrar Orthopaedic Registrar
1998	Royal Prince Alfred Hospital Shriner's Hospital for Children Portland, Oregon	Orthopaedic Registrar Orthopaedic Resident
1999	Shriner's Hospital for Children University California Los Angeles	Orthopaedic Resident Orthopaedic Research Fellow
2000	Royal North Shore Hospital Sydney Hospital	Orthopaedic Registrar Orthopaedic Registrar
2001-2002	Sydney Hip & Knee Surgeons	Arthroplasty Fellow
2002-2003	Hospital for Special Surgery, New York	Adult Reconstructive Surgery Fellow

## POSTGRADUATE

Royal Australian College of Surgeons (Orthopaedic) -

December 2006

PhD Surgery,  
University of New South Wales.

## **OTHER QUALIFICATIONS**

November 1995	PART 1 - MCQ
March 1996	OSCE
May 2000	PART 2

## **Qualification to practice in USA**

Educational Commission for Foreign Medical Graduates, USA  
(equivalent to USMLE Steps 1 and 2). ECFMG Applicant Number: 0-470-430-0

September 1991	Basic Science
September 1993	Clinical Science
March 1994	English Examination
August 1998	English Examination (update)
November 1997	Orthopaedic Primary Exam
March 1996	AO/ASIF Basic Course
April 1996 (equivalent to ATLS)	Emergency Management of Severe Trauma

## **TEACHING COMMITMENTS**

### **Orthopaedic Registrar training**

- Mater Representative AOA Northside Board of Studies
- Supervise training and assessment of the Mater Registrar
- Clinical Tutorials for Northside Registrars
- Write and correct essays for annual in-training exam

### **Associate Professor University of Notre Dame.**

- Clinical Discipline Leader, Surgery.

### **Associate Professor University of New South Wales.**

- Supervisor of PhD Student, Christina Esposito – UNSW  
PhD in edge loading and wear in hard-on-hard bearings.
- Brad Miles – University of Sydney (unofficial)  
PhD in periprosthetic femoral fracture.

### **Supervisor - International fellowship in Arthroplasty Surgery**

- Two full-time surgeons in fellowship program

**General Practitioners**

- Regular CME accredited teaching sessions: Hip and Knee Replacement Seminar
- GPCE (continuing education), May 2008.
- Education articles in Medical Observer.

**Nursing staff**

- Regular lectures and live surgery demonstrations for trainee nurses
- Regular trainee nurses in theatre

**Scientific meetings**

- Regular speaker at domestic and international scientific meetings. See back of this document for further information.

**COMMUNITY SERVICE**

- Voluntary Surf Lifesaver – Palm Beach Surf Lifesaving Club
- Member of Orthopaedic Outreach
- Volunteer surgeon for Mercy cases with Mater Lives Committee.

## **CURRENT RESEARCH**

Retrieval laboratory at Mater Clinic

- 500 hip and knee replacement retrievals
- 10 year history
- All retrievals linked to clinical database

Clinical database

- 8000 joint replacements
- 22 year history
- Preoperative and postoperative clinical data collected
- Radiographs scored and stored – linked to procedure

Finite Element Analysis of hip replacement

- Investigating propensity for periprosthetic fracture

Acoustic Analysis

- Investigating propensity to squeak
- Wear analysis

## **RESEARCH PARTNERS**

University of New South Wales

- Biomechanics laboratory
- Wide range of expertise in implant design and testing.
- Collaborating with Professor William Walsh on stability of knee replacements in the tibia.

University of Sydney

- Biomechanics laboratory
- Expertise in testing with cadaveric bone
- Currently collaborating with Richard Appleyard PhD on fracture testing of cadaveric femora with implantation of hip replacements of different surface roughness.

Oxford University

- Expertise in orthopaedic research
- Collaborating with Professor David Murray on analysis of resurfacing retrievals.

Imperial College London

- Biomechanics and 3D computer analysis
- Collaborating with Professor Justin Cobb on measurement of acetabular component position using CT scan.

Exponent, Philadelphia

- Orthopaedic research company, winner 2005 Hip Society Award
- Experts in finite element analysis and retrieval analysis
- Collaborating with Steven Kurtz PhD on retrieval analysis of squeaking ceramic-on-ceramic bearings and world survey on total hip and knee replacement.

Loma Linda University, California

- Orthopaedic research laboratory
- Experts in hip simulator studies, wear and retrieval analysis
- Collaborating with Professor Ian Clark on a hip simulator wear study.

## PUBLICATIONS IN SCIENTIFIC JOURNALS

Title	Authors	Journal
Retrieval analysis of squeaking alumina ceramic-on-ceramic bearings.	W. L. Walter, S. M. Kurtz, W. Hozack, S. S. Rajaratnam, K. G. Holley, J. P. Garino, M. A Tuke.	Journal of Arthroplasty. In press (accepted for publication).
Tibial fixation without screws in cementless knee arthroplasty.	I. P. Holloway, P. J. Lusty, W. L. Walter, W. K. Walter, B. A. Zicat.	Journal of Arthroplasty, Vol 25, No. 1, 46 – 51, 2010.
Ceramic-on-ceramic bearing surface and risk of revision due to dislocation after primary total hip replacement.	S. A. Sexton, W. L. Walter, M. P. Jackson, R. De Steiger, T. Stanford.	Journal of Bone and Joint Surgery, Vol 91-B, No. 11, 1448 – 1453, 2009.
The effect of obesity on the mid-term survival and clinical outcome of cementless total hip replacement.	M. P. Jackson, S. A. Sexton, E. Yeung, W. L. Walter, W. K. Walter, B. A. Zicat	Journal of Bone and Joint Surgery, Vol 91-B, No. 10, 1296 – 1300, 2009.
The impact of obesity on the mid-term outcome of cementless total knee replacement.	M. P. Jackson, S. A. Sexton, W. L. Walter, W. K. Walter, B. A. Zicat.	Journal of Bone and Joint Surgery. Vol. 91-B, No. 8, 1044 – 1048, 2009.
Long term results of cementless total hip replacement for reversal of hip ankylosis.	S. S. Rajaratnam, S. A. Sexton, T. S. Waters, W. L. Walter, B. A. Zicat, W. K. Walter	Hip International, Vol. 19, No. 2, 2009.
Osteolysis in third-generation alumina ceramic-on-ceramic hip bearings with severe impingement and titanium metallosis.	R. Murali, F. S. Bonar, G. Kirsh, W. K. Walter, W. L. Walter.	Journal of Arthroplasty, Vol. 23, No. 8, 2008.
Osteolysis with a cementless second generation metal-on-metal	cup in total hip replacement. I. Holloway, W. L. Walter, B. A. Zicat, W. K. Walter.	International Orthopaedic, SICOT, Sept 2008.

<b>Title</b>	<b>Authors</b>	<b>Journal</b>
Squeaking hips.	W. L. Walter, T. S. Waters, M. Gillies, S. Donohoo, S. M. Kurtz, A. S. Ranawat, W. J. Hozack, M. A. Tuke.	Journal of Bone and Joint Surgery. Vol. 90-A, Suppl 4:102-111, 2008.
Hip resurfacing arthroplasty: the Australian experience.	M. L. Buergi, W. L. Walter.	Journal of Arthroplasty, Vol. 22, No. 7, 2007.
Orientation and wear of the acetabular component in third generation alumina-on-alumina ceramic	bearings. An analysis of 33 retrievals. P. J. Lusty, A. Watson, M. A. Tuke, W. L. Walter, W. K. Walter, B. A. Zicat.	Journal of Bone and Joint Surgery. Vol. 89-B, No. 9, Sept, 2007
Third-Generation Alumina-on-Alumina Ceramic Bearings in Cementless Total Hip Arthroplasty.	P. J. Lusty, C.C. Tai, R. P. Sewhoy, W. L. Walter, W. K. Walter, B. A. Zicat.	Journal of Bone and Joint Surgery. Vol. 89-A, 2676-83, 2007
Cementless hip arthroplasty in Paget's Disease at Medium-Term Follow-up (Average of 6.7 years).	P. J. Lusty, W. L. Walter, W. K. Walter, B. A. Zicat.	Journal of Arthroplasty. Vol. 22, No.5: 692-6, June 2007.
Squeaking in ceramic-on-ceramic hips; the importance of acetabular component orientation.	W. L. Walter, G. O'Toole, W. K. Walter, A. Ellis, B. A. Zicat.	Journal of Arthroplasty. Vol. 22, No.4: 496-503, May 2007
Iliopsoas tendonitis, a complication after total hip arthroplasty.	M. O'Sullivan, C.C. Tai, W. L. Walter, W. K. Walter.	Journal of Arthroplasty. Vol. 22, No.2: 166-70, Feb 2007
Minimising Squeaking and Edge Loading when Implanting a Ceramic-on-ceramic Hip Arthroplasty	P. J. Lusty, W. L. Walter	European Musculoskeletal Review, 2007.

<b>Title</b>	<b>Authors</b>	<b>Journal</b>
Stripe wear and squeaking in ceramic total hip bearings.	W. L. Walter, P. J. Lusty, A. Watson, G. O'Toole, M. A. Tuke, W. K. Walter and B. A. Zicat.	Seminars in Arthroplasty. Vol. 17, Issue 3: 190-195, September 2006
Clinical and Radiographic Assessment of a Modular Cementless Ingrowth Femoral Stem System for Revision Hip Arthroplasty.	W. L. Walter, W. K. Walter, B.A. Zicat.	Journal of Arthroplasty. Vol. 21 No.2: 172-178, February 2006
Prevalence of Infection in Bilateral Total Hip Arthroplasty.	A. G. Della Valle, W. L. Walter, M. G. Pederson, P. M. Pellici, T. P. Sculco, E. A. Salvati.	Journal of Arthroplasty. Vol. 21 No.2: 157-160, February 2006
Polyethylene wear rates with Zirconia and Cobalt Chrome heads in the ABG hip.	A. D. Skyrme, S. Richards, A. John, M. Chia, W. K. Walter, W. L. Walter, B. A. Zicat.	Hip International Vol 15: 63 – 70, 2005
Mechanisms for Pumping Fluid Through Cementless Acetabular Components With Holes.	W. L. Walter, J. Clabeaux, T. M. Wright, W. Walsh, W. K. Walter, T. P. Sculco.	Journal of Arthroplasty. Vol. 20 No.8: 1042-1048, December 2005
Minimally invasive total hip arthroplasty: the Hospital for Special Surgery experience.	T. P. Sculco, L. C. Jordan, W. L. Walter.	Orthopedic Clinics North America Vol.35 No 2:137-42, 2004
Edge Loading in Third Generation Alumina Ceramic-on-ceramic Bearings.	W. L. Walter, G. M. Insley, W. K. Walter, M. A. Tuke.	Journal of Arthroplasty Vol. 19 No. 4, 402-13, 2004
The Pumping of Fluid in Cementless Cups with Holes.	W. L. Walter, W. K. Walter, M. O'Sullivan.	Journal of Arthroplasty Vol. 19 No. 2: 230-234, February 2004.
Screening of Children with Down Syndrome for Atlanto-axial (C1-2) Instability - Another	Contentious Health Question. W. L. Walter, T. K. F. Taylor	Medical Journal of Australia Vol. 165: 448-450, 1996.

## BOOK CHAPTERS

Chapter 14: *Posterior and posteroinferior approaches.*

P. J. Lusty, W. L. Walter, and D. Young

W.J. Hozack, J. Parvizi, B. Bender, Surgical Treatment of Hip Arthritis: Reconstruction, Replacement, and Revision, Elsevier, Philadelphia, 2010. ISBN: 978-1-4160-5898-4

Chapter 21: *Total knee arthroplasty after fractures about the knee.revision.*

R. E. Windsor and W. L. Walter

Total Knee Arthroplasty, Springer, New York, 2005.

## EDUCATIONAL ARTICLES

*Knee Replacement Surgery.*

Medical Observer, 22<sup>nd</sup> May 2009

W. L. Walter

*Hip Surgery.*

Medical Observer, 29<sup>th</sup> August 2008

W. L. Walter

## PRESENTATIONS TO LEARNED SOCIETIES

The Great Debate. Early Intervention in the Hip and Knee.

January 2010, London.

***Impingement: Device or Surgeon or Both?***

William L. Walter

***Ceramic-on-ceramic is durable and reliable.***

William L. Walter

Advances & Techniques in Joint Replacement Surgery

January 2010, Kolkata, India.

***Recent advances in TKR. Current trends in non-cemented fixation.***

William L. Walter

***Current trends in total hip.***

William L. Walter

***Basic surgical technique. Resurfacing.***

William L. Walter

***Alternative bearings. Ceramic on ceramic.***

William L. Walter

***Complications in THA. Avoiding intraoperative fracture & treatment of perioperative fracture.***

William L. Walter

International Society for Technology in Arthroplasty

October 2009, Hawaii.

***The influence of component size on the outcome of hip resurfacing.***

William L. Walter, Andrew Shimmin

***10 year follow-up of ceramic-on-ceramic THA: my experience with squeaking hips.***

William L. Walter, Andrew Shimmin

- Australian Orthopaedic Association ASM October 2009, Cairns.  
***An evaluation of squeaking in large diameter thin ceramic liner using the finite element method.***  
William L. Walter, Mark Gillies
- 3<sup>rd</sup> Advanced Resurfacing Course June 2009, Ghent.  
***Tips and tricks.***  
William L. Walter
- Squeaking resurfacings.***  
William L. Walter
- Arthroplasty Society of Australia June 2009, Noosa.  
***Small component sizes in hip resurfacing.***  
William L. Walter
- Obesity and hip and knee replacement.***  
William L. Walter
- CCJR Spring May 2009, Las Vegas.  
***Obesity and TKR – a growing concern.***  
William L. Walter
- Ceramic hips for the hard of hearing and living alone.***  
William L. Walter
- AAOS/ORS Combined Symposium May 2009, Las Vegas.  
CURRENT CONTROVERSIES IN BEARING SURFACE SCIENCE  
***Tribology of ceramic bearings: Challenges and opportunities***  
William L. Walter
- AAOS/ORS Combined Symposium March 2009, Las Vegas.  
CURRENT CONTROVERSIES IN BEARING SURFACE SCIENCE  
***Tribology of ceramic bearings: Challenges and opportunities***  
William L. Walter
- AAOS Symposium March 2008, San Francisco.  
THE LATEST INFORMATION ON TOTAL HIP ARTHROPLASTY BEARINGS SURFACES:  
PRESENTATION, ANALYSIS AND CRITIQUE OF THE LATEST DATA FROM AROUND THE  
WORLD.  
***Stripe wear and ceramic fractures***  
William L. Walter
- American Academy of Orthopaedic Surgeons 021 March 2008, San Francisco.  
***Wear and acetabular component orientation in C-o-C bearings; an analysis of 33 retrievals.***  
William L. Walter
- American Academy of Orthopaedic Surgeons 028 March 2008, San Francisco.  
***Acoustic analysis of squeaking hips.***  
William L. Walter
- Advances in Surgical Technology (CME) December 2006, New York.

- Resurfacing hip replacement – the Australian experience.***  
William L. Walter  
 American Academy of Orthopaedic Surgeons March 2006, Chicago.  
***Squeaking in ceramic-on-ceramic hips; the importance of acetabular component orientation.***  
 William L. Walter, Gary O'Toole, William K. Walter, Andrew Ellis and Bernard Zicat.
- Australian Orthopaedic Association October 2005, Perth.  
***Squeaking in ceramic-on-ceramic Hips; the Importance of acetabular component orientation.***  
William L. Walter
- FEA Model of periprosthetic femoral fractures in an anatomic cementless hip stem.***  
William L. Walter
- Arthroplasty Society of Australia October 2005, Bunker Bay.  
***Squeaking in ceramic-on-ceramic hips; the importance of acetabular component orientation.***  
William L. Walter
- FEA Model of periprosthetic femoral fractures in an anatomic cementless hip stem.***  
William L. Walter
- 11th Meeting of the Combined Orthopaedic Associations. October 2004, Sydney.  
***Pumping of fluid in hips.***  
 WL Walter, T Wright, J Clabeaux, WK Walter, T Sculco.
- Standard and duration poly.***  
B. Zicat, V. Vedi, WK Walter, WL Walter
- Edge wear in alumina all-ceramic bearings.***  
 W.L. Walter, W.K. Walter, G. Insley, M. Tuke.
- Ceramic-on-ceramic bearings in THR.***  
W.K. Walter, W.L. Walter
- Fractures around a cementless anatomic stem.***  
V.Vedi, WL Walter, WK Walter, B Zicat.
- British Orthopaedic Association: Annual Congress. September 2004, Manchester.  
***The pumping of fluid in hips with acetabular components with holes.***  
 WL Walter, T Wright, J Clabeaux, WK Walter, T Sculco.
- AOA: New Technologies in Orthopaedics. (COE). August 2004, Brisbane.  
***Posterior MIS.***  
 W.L.Walter
- European Hip Society domestic meeting June 2004, Innsbruck.  
***The mechanics of stripe wear formation in modern alumina-alumina bearings.***  
 W.L. Walter, W.K. Walter, G. Insley, M. Tuke.
- ACT branch AOA annual scientific meeting. (COE) November 2003, Canberra.  
***In vivo performance of modern ceramic-ceramic bearings.***  
 W.L. Walter, W.K. Walter

- Acetabular osteolysis: fluid pumping?***  
W.L. Walter, T. Wright, T Sculco.
- Hips for all Ages. (COE) August 2003, Sydney.  
***In vivo performance of modern ceramic-ceramic bearings.***  
W.L. Walter, W.K. Walter
- Acetabular osteolysis: fluid pumping?***  
W.L. Walter, T. Wright, T Sculco.
- Hip Symposium. May 2003, Couran Cove.  
***Clinical performance of modern ceramic-ceramic bearings.***  
W.L. Walter, W.K. Walter
- Fluid pumping in cementless acetabular components with holes?***  
W.L. Walter, T. Wright, T Sculco.
- Innovations in Total Hip & Total Knee Arthroplasty February 2003, Interlaken.  
***Stripe wear formation in modern ceramic-ceramic bearings.***  
W.L. Walter, W.K. Walter, G. Insley, M. Tuke.
- American Academy of Orthopaedic Surgeons February 2003, New Orleans  
***The mechanics of stripe wear formation in modern ceramic-ceramic bearings.***  
W.L. Walter, W.K. Walter, G. Insley, M. Tuke.
- Alternate Bearings in Total Joint Replacement. September 2002, New York.  
***Stripe wear in modern alumina-alumina bearings – clinical data.***  
W.L. Walter, W.K. Walter.
- Stripe wear in modern alumina-alumina bearings – retrieval analysis.***  
W.L. Walter, W.K. Walter, G. Insley, M. Tuke.
- ABG International Meeting June 2002, Sorrento.  
***Pressure induced osteolysis?***
- Combined New Zealand and Australian Orthopaedic Associations Scientific Meeting  
October 2001, Queenstown.  
***Pumping action of polyethylene liners in metal cups with holes***  
WL Walter, WK Walter
- Metal failure in tumour prostheses***  
WL Walter, J Eckardt
- Cementless anatomic HA coated stems in patients under 50 years at the time of surgery.***  
WL Walter, B Zicat, WK Walter.
- Seville Hip Forum. September 2001, Spain.  
***Pumping action of polyethylene liners in metal cups with holes***  
WL Walter, WK Walter
- Arthroplasty Society of Australia Scientific Meeting May, 2001, Sydney.  
***Pumping action of polyethylene liners in metal cups with holes***  
WL Walter, WK Walter

Royal Australasian College of Surgeons & Royal Australian College of Physicians - Annual combined scientific meeting. November 1996, Canberra.

***Silastic trapezium arthroplasty***

WL Walter, M Gillespie

Spine Society of Australia & Neurosurgical Society of Australasia combined meeting. September 1995, Broom WA.

***C1-2 Instability in Down syndrome***

WL Walter, TKF Taylor

Australian Orthopaedic Association Scientific Meeting. September 1994, Sydney.

***What is the cost of a pressure sore?***

WL Walter, MJ Neil

**POSTER PRESENTATIONS TO LEARNED SOCIETIES**

British Hip Society, Poster 145 March 2009, Manchester.

***When is 45 degrees not 45 degrees? Analysis of the true inclination angle of resurfacing sockets.***

T N Board and W L Walter

American Academy of Orthopaedic Surgeons March 2008, San Francisco.

***Scientific Exhibit: The squeaking hip.***

W L Walter

American Academy of Orthopaedic Surgeons P175 March 2008, San Francisco.

***Tibial fixation without screws in cementless knee arthroplasty.***

W L Walter

American Academy of Orthopaedic Surgeons P085 March 2008, San Francisco.

***Third generation alumina-on-alumina ceramic bearings in hip arthroplasty – minimum 5 year follow-up.***

W L Walter

Orthopaedic Research Society, Poster 1194. February 2005, Washington.

***Polyethylene wear rates with zirconia and cobalt chrome heads.***

WL Walter, AD Skyrme, S Richards, M Chia, DD Green, WK Walter, B Zicat.

American Academy of Orthopaedic Surgeons P051. February 2005, Washington.

***Five-year minimum prospective follow-up of 300 alumina ceramic-on-ceramic hip replacements.***

WL Walter, WK Walter, B Zicat, R Sewhoy.

European Hip Society domestic meeting, P067. June 2004, Innsbruck.

***Pumping of fluid in hips with acetabular components and holes.***

WL Walter, T Wright, J Clabeaux, WK Walter, T Sculco.