
SPORTS HIP 16
www.sportshipsurgery.org
@WarwickOrtho
SPEAKER NOTES
Kim Bennell
WARWICK orthopaedics

WARWICK orthopaedics

SPORTS INJURY CONFERENCES

SPORTS HIP 16

www.sportshipsurgery.org @WarwickOrtho

27TH & 28TH JUNE 2016

THE NATIONAL FOOTBALL CENTRE, ST GEORGE'S PARK

www.sports-surgery.org

COURSE CONVENOR



PROFESSOR DAMIAN GRIFFIN

PROFESSOR OF TRAUMA & ORTHOPAEDIC SURGERY

UNIVERSITY OF WARWICK

SPORTS HIP 2016 WAS SUPPORTED BY

Arthrex HELPING SURGEONS TREAT THEIR PATIENTS BETTER

DJO GLOBAL

bodyflow

stryker

Arthro Dynamik

Perform Part of Spire Healthcare

ÖSSUR

ZIMMER BIOMET Your progress. Our promise.

FUNCTION JIGSAW SPORTS INJURY MANAGEMENT

MicroPort Scientific Full Function. Faster.

SEMPRIS

Clinical Graphics See Beyond

Sybermedica

WARWICK orthopaedics
SPORTS INJURY CONFERENCES

SPORTS HIP 16

www.sportshipsurgery.org @WarwickOrtho

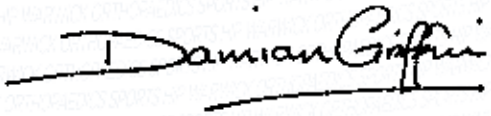
Dear Colleague,

The Sports Hip Conference will run again in 2018 as part of our portfolio of Sports Injury conferences. Some of you may have already attended the Sports Foot & Ankle, Sports Shoulder and and Sports Knee conferences. The dates for the next events will shortly be published on our website
www.sports-surgery.org

The key feature of these Sports Injury conferences is that we explore the latest ideas and most difficult problems in a relatively small group, guided by an expert international faculty.

Please do let us know if you have any thoughts about the meeting or any suggestions as to how we might develop it in the future.

With very best wishes.



PROFESSOR DAMIAN GRIFFIN
PROFESSOR OF TRAUMA & ORTHOPAEDIC SURGERY
UNIVERSITY OF WARWICK

WARWICK orthopaedics
SPORTS INJURY CONFERENCES
SPORTS HIP 16

Kim Bennell



Kim Bennell is a research physiotherapist and her current positions include Professor and Director of the Centre for Health, Exercise and Sports Medicine (CHESM), in Physiotherapy at the School of Health Sciences, University of Melbourne, NHMRC Principal Research Fellow and Director of the NHMRC Centre of Research Excellence in Translational Research in Musculoskeletal Pain.

She leads a multidisciplinary team including people from physiotherapy, medicine, exercise science, podiatry and psychology. Kim's research focuses on conservative non-drug management of musculoskeletal conditions particularly osteoarthritis with an emphasis on the role of exercise in both prevention and management.

Along with colleagues from the Universities of Queensland and Sydney, Kim was awarded an NHMRC program grant of $8.23 million which commenced in 2016 to further her research into knee osteoarthritis. Kim is also an Executive Board member of the Osteoarthritis Research Society International.

WARWICK orthopaedics
SPORTS INJURY CONFERENCES
SPORTS HIP 16

Session 7

FEMOROACETABULAR IMPINGEMENT 1: HOT TOPICS

What research do we need to do next?

© Kim Bennell 2016.
Permission must be obtained from the author before using any part of this presentation.

CONTACT THE AUTHOR

Research in femoroacetabular impingement

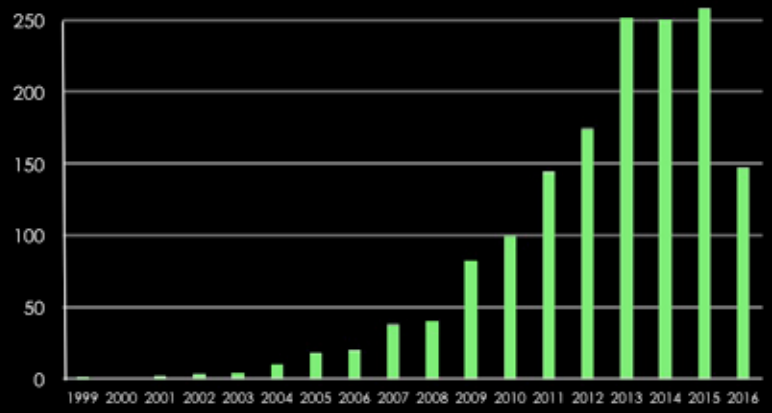
Kim Bennell PhD

Centre for Health, Exercise and Sports Medicine
Department of Physiotherapy
University of Melbourne
Australia

Research (Pubmed)

- "Femoroacetabular impingement"
- 1541 articles published
  - 1197 in humans

Number of FAI publications (Pubmed)



Research - pubmed

– 1541 published articles - 1197 in humans
- 39 clinical trials – 14 RCTs (but only 6)
- 259 reviews – 97 systematic reviews
- 91 case reports

Randomised controlled trials

- Effects of naproxen on heterotopic ossification after hip arthroscopy
- Pre-op femoral nerve block
- Arthroscopic labral repair versus selective labral debridement
- Surgical hip dislocation versus hip arthrsocopy
- Platelet rich plasma at surgery

RCTs in progress

Investigator	N	Active intervention	Comparator	Timepoint
Mansell - USA	60	Arthroscopic surgery	Physical therapy	24 mths
Glyn-Jones - UK	120	Arthroscopic surgery	Physical therapy	6 mths
Griffin - UK	344	Arthroscopic surgery	Best conservative care	12 mths
Naudie - Canada	140	Arthroscopic surgery	Conservative care	24 mths
Risberg - Norwary	140	Arthroscopic surgery	Sham surgery	12 mths
McMaster Uni Canada	220	Arthroscopic chondroplasty	Arthroscopic lavage	12 mths
Hunter - Australia	140	Arthroscopic surgery	Best conservative care	12 mths

RCTs in progress

Investigator	N	Active intervention	Comparator	Timepoint
Bennell - Australia	30	Post op physio rehab	No post op rehab	13 weeks
Duke Uni USA	60	1) Indiv rehab 2) Standard rehab	Usual care	6 mths
High Point Uni - USA	18	Manual therapy + Ex	Usual care	6 weeks
Kemp - Australia	40	Strengthening, ed, MT, fitness	Stretching, ed, MT, fitness	12 weeks
Tijssen - Netherlands	30	Post op PT	Post op self management	12 mths

- Epidemiology
- Clinical tests
- Imaging
- Impairments
- Outcome measures

Study quality

Osteoarthritis and Cartilage

OARSI OSTEOARTHRITIS RESEARCH SOCIETY INTERNATIONAL

Review

Prevalence of cam hip shape morphology: a systematic review

E. Dickenson †, P.D.H. Wall ‡, B. Robinson ‡, M. Fernandez ‡, H. Parsons †, R. Buchbinder §, D.R. Griffin † *

† Warwick Medical School, United Kingdom
‡ University Hospitals Coventry and Warwickshire, United Kingdom
§ Monash University Department of Clinical Epidemiology, Australia

Study	Risk of bias 1	Risk of bias 2	Risk of bias 3	Risk of bias 4	Risk of bias 5	Risk of bias 6	Risk of bias 7	Risk of bias 8	Risk of bias 9	Risk of bias 10	Risk of bias 11
Agricola 2012[7]	High	Low	High	High	Low	Low	Low	Low	Low	High	High
Gosvig 2008[37]	High	Low	High	Low	Low	High	Low	Low	Low	Low	High
Hack 2010[14]	High	High	High	High	Low	Low	Low	Low	Low	Low	High
Diesel 2015[34]	High	High	High	Low	Low	Low	Low	Low	Low	Low	High
Ergen 2014[38]	High	High	High	High	Low	Low	Low	Low	Low	Low	High
Goldin 2015[40]	High	High	High	Low	Low	Low	Low	Low	Low	High	High
Ida 2014[47]	High	High	High	Low	Low	Low	Low	Low	Low	High	High
Mimura 2015[48]	High	High	High	Low	Low	Low	Low	Low	Low	High	High
Scheidt 2015[51]	High	High	High	High	Low	Low	Low	Low	Low	High	High
Van Houcke 2015[52]	High	High	High	Low	Low	Low	Low	Low	Low	Low	High
Kim 2015[56]	High	High	High	Low	Low	Low	Low	Low	Low	High	High
Bowler 2011[61]	High	High	High	Low	Low	High	Low	Low	Low	High	High
Carey 2012[21]	High	High	High	Low	Low	Low	Low	Low	Low	High	High
Hashimoto 2014[40]	High	High	High	Low	Low	Low	Low	Low	Low	High	High
Joo 2013[17]	High	High	High	Low	Low	High	Low	Low	Low	High	High
Jung 2011[44]	High	High	High	Low	Low	High	Low	Low	Low	High	High
Kang 2010[22]	High	High	High	Low	Low	Low	Low	Low	Low	Low	High
La France 2014[45]	High	High	High	Low	Low	Low	Low	Low	Low	High	High
Mori 2014[32]	High	High	High	Low	Low	Low	Low	Low	Low	High	High
Omoumi 2014[43]	High	High	High	Low	Low	Low	Low	Low	Low	Low	High
Takeyama 2009[23]	High	High	High	Low	Low	Low	Low	Low	Low	High	High
Tsitskaris 2012[33]	High	High	High	Low	Low	Low	Low	Low	Low	Low	High
Lahner 2014[39] Germany	High	High	High	High	Low	Low	Low	Low	Low	Low	High
Lahner 2014[39] Germany	High	High	High	High	Low	Low	Low	Low	Low	Low	High
Tak 2015[31] Netherlands	High	High	High	Low	Low	Low	Low	Low	Low	Low	High
Johnson 2012[35]	High	High	High	Low	Low	Low	Low	Low	Low	Low	High
Kolo 2013[55]	High	High	High	High	Low	Low	Low	Low	Low	High	High
Larson 2013[24]	High	High	High	High	Low	Low	Low	Low	Low	Low	High
Maricevda 2014[46]	High	High	High	Low	Low	Low	Low	Low	Low	High	High
Nepple 2012[48]	High	High	High	Low	Low	Low	Low	Low	Low	High	High

Items included on the risk of bias tool.
1. Was the study's target population a close representation of the national population in relation to relevant variables, e.g., age, sex, occupation?
2. Was the sampling frame a true or close representation of the target population?
3. Was some form of random selection used to select the sample, OR, was a census undertaken?
4. Was the likelihood of non-response bias minimal?
5. Were data collected directly from the subjects (as opposed to a proxy)?
6. Was an acceptable case definition used in the study?
7. Had the study instrument that measured the parameter of interest (e.g., prevalence of LBP) been tested for reliability and validity (if necessary)?
8. Was the same mode of data collection used for all subjects?
9. Was the length of the shortest prevalence period for the parameter of interest appropriate?
10. Were the numerator(s) and denominator(s) for the parameter of interest appropriate?
11. Summary item on the overall risk of study bias.

What are the key FAI questions that need to be answered?

Prevention

Do changes to training in adolescent athletes decrease Cam formation?

Does operating on asymptomatic hips lead to long-term benefits in terms of reducing OA?

What is the natural history of FAI morphology?

In those with FAI morphology, can we predict who will become symptomatic?

Can rehabilitation prevent FAI pain and if so, how?

Epidemiology and Mechanisms

What is the incidence and prevalance of FAI?

What is the contribution of hip muscle dysfunction and movement patterns to FAI morphology and symptoms?

What is the role of structural features in FAI syndrome eg. Femoral anteversion, capsular tightness?

What is the source of pain in FAI?

Diagnosis/Assessment

How do we define FAI syndrome?

What are the diagnostic criteria for Cam and Pincer morphology?

What are the best outcome measures to show change following treatment?

Conservative management

What is the outcome of conservative treatment?

What is the most effective conservative management program?

Which patients respond best to conservative management?

Surgical management

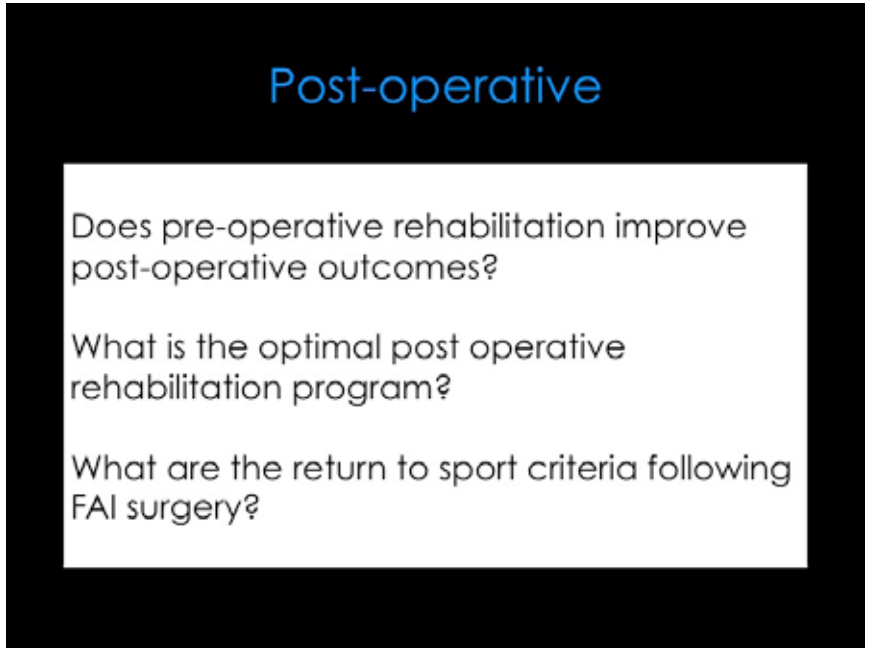
Is surgery or conservative management more effective for improving short- and long-term outcomes?

Comparison of FAI surgery versus sham surgery

Factors affecting outcomes from surgery eg. pre-op and post alpha angle, femoral retroversion, age, sex, degenerative change

Does capsule closure lead to improved patient outcomes

What is the optimal method to treat labral pathology


Post-operative
Does pre-operative rehabilitation improve post-operative outcomes?
What is the optimal post operative rehabilitation program?
What are the return to sport criteria following FAI surgery?