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SPEAKER NOTES
Damian Griffin
WARWICK orthopaedics

WARWICK orthopaedics

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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

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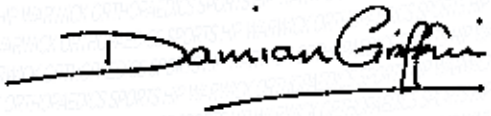
Dear Colleague,

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

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Damian Griffin



Damian Griffin is the Professor of Trauma and Orthopaedic Surgery at the University of Warwick. He trained in Cambridge, Oxford and the United States, and worked as a Consultant in Oxford before taking up the Foundation Chair in Warwick and helping to establish Warwick Medical School.

His clinical interest is in the diagnosis and treatment of hip pain in young adults. Joint-preserving surgery for early arthritis, the development of hip arthroscopy, and the management of femoro-acetabular impingement, sporting injury and acetabular fractures are particular passions. He runs a national referral service for young and active people with hip pain, based at the University Hospital of Coventry and Warwickshire NHS Trust and at the BMI Meriden Hospital.

Damian is also trained as a clinical epidemiologist. In Warwick Orthopaedics, he has built a new academic department with a clear focus on the assessment of clinical effectiveness of orthopaedic surgery. With a growing clinical and scientific team, he is developing new methods for clinical research, scientifically robust but more suited to surgery, as well as performing primary and secondary research on clinical effectiveness.

Damian is married with four young girls. In his spare time, he is an Army Reserve infantry officer in The Rifles and a keen mountaineer.

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Session 1

HIP INSTABILITY

Traumatic instability: Acute arthroscopy?

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Acute traumatic hip instability

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St George's Park

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Warwick Medical School



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Centre for Sports Hip Surgery



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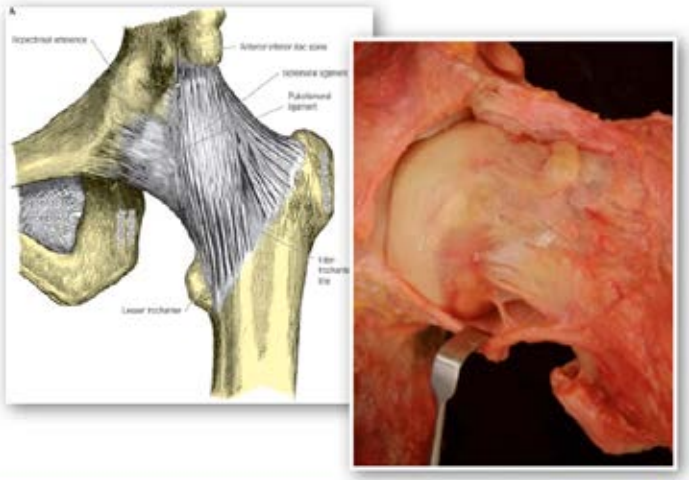
Bony anatomy

- Congruent
- Deeply placed



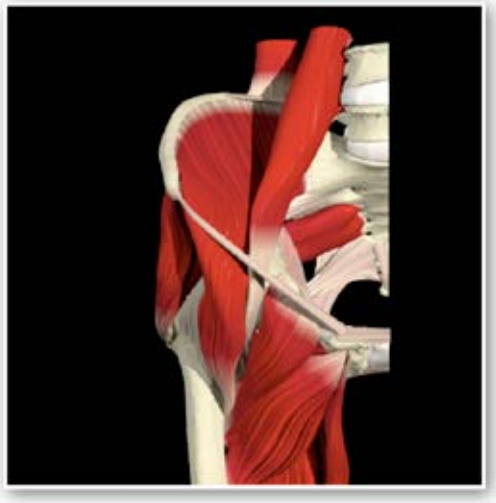
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Capsule



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Muscles



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All there is to know about hips...

- The hip is a ball and socket joint
- It is pretty simple
- It is stable
- It can wear out...



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- Posterior dislocation

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- Anterior dislocation

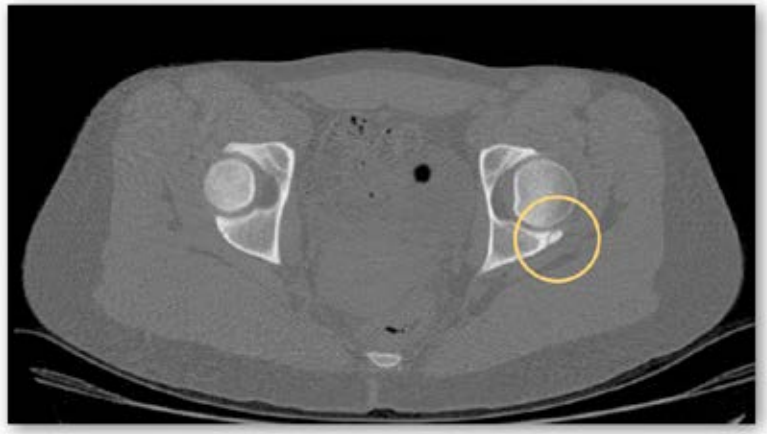
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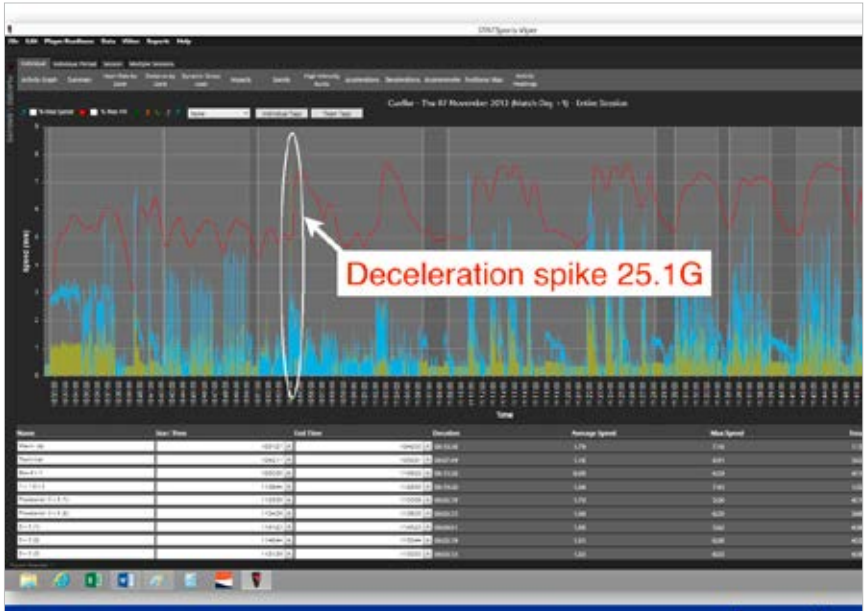
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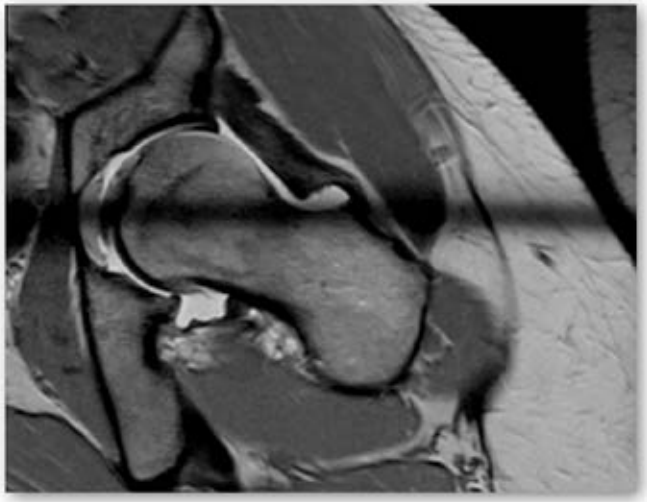
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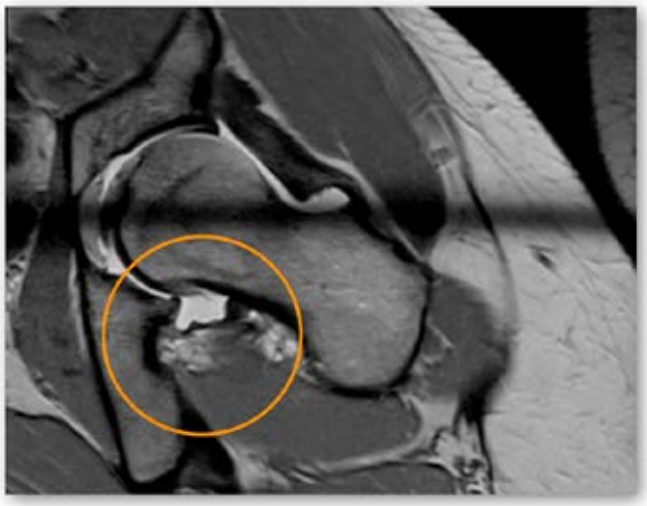
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- Posterior rim fracture and subluxation

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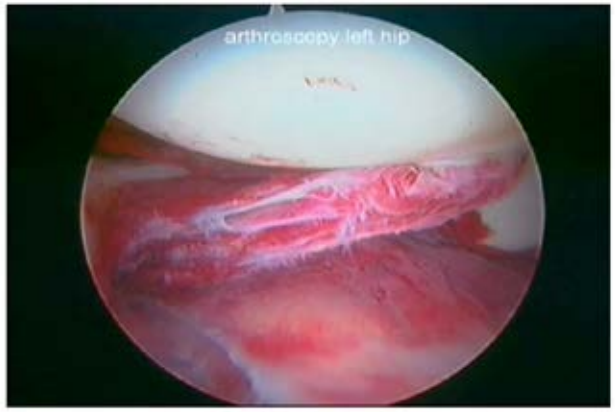


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Acute trauma



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Acute trauma



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Acute trauma



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Acute trauma



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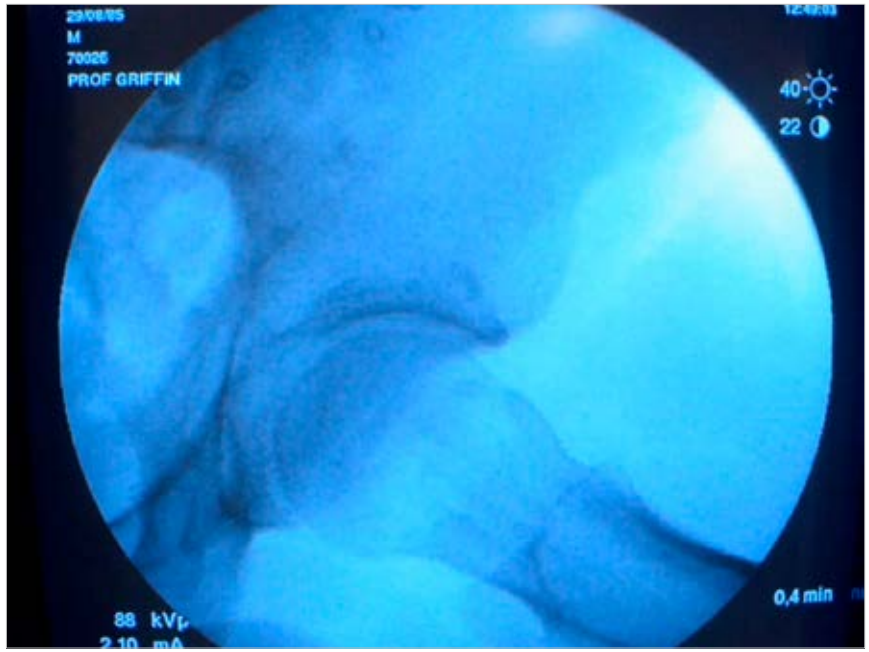
Acute trauma



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Association acute traumatic instability with FAI

Krych AJ, Thompson M, Larson CM, Byrd JWT, Kelly BT. Is posterior hip instability associated with cam and pincer deformity? Clin. Orthop. Relat. Res. 2012 Dec;470(12):3390–7.



Management of acute traumatic instability

- Surgical versus conservative treatment for acute first-time anterior shoulder dislocation: the evidence. R. Padua, R. Bondi, L. Bondi and A. Campi Journal Ortho and Trauma 2007. 8 (4) 207-213

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Management of acute traumatic instability

- Surgical versus conservative treatment for acute first-time anterior shoulder dislocation: the evidence. R. Padua, R. Bondi, L. Bondi and A. Campi Journal Ortho and Trauma 2007. 8 (4) 207-213

- Routine arthroscopy after hip dislocation...

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Conclusion

- Hip dislocation occurs in athletes
- Hip subluxation is common in athletes
- Can be associated with FAI
- Recommend arthroscopy and repair

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Session 6

FEMOROACETABULAR IMPINGEMENT 1: TREATMENT OPTIONS

Trials to compare conservative treatment and surgery

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Trials of arthroscopy for FAI

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St George's Park
28 January 2016

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Trials of hip arthroscopy for FAI

UK FASHIoN	vs PHT	344	2017
Oz FASHIoN	vs PHT	140	2018

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Trials of hip arthroscopy for FAI

UK FASHIoN	vs PHT	344	2017
Oz FASHIoN	vs PHT	140	2018
FAIT	vs physio	214	2017
US Army	vs physio	80	2019

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Trials of hip arthroscopy for FAI

UK FASHIoN	vs PHT	344	2017
Oz FASHIoN	vs PHT	140	2018
FAIT	vs physio	214	2017
US Army	vs physio	80	2019
FIRST	vs w/o	220	2018
HIPARTI	vs w/o	140	2020

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UK Department of Health

- Hip arthroscopy is a new cost
- Increasing volumes
- Patients with hip pain improve with physiotherapy or surgery
- No Level 1 evidence of effectiveness of surgery

Department of Health

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Policy question

- Should the UK Health Service fund hip arthroscopy?

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Research question

NHS
National Institute for Health Research

- In patients with FAI, what is the clinical and cost effectiveness of hip arthroscopy compared with best conservative care?

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Feasibility study

- *Are surgeons willing to take part in an RCT?*
- *Are patients willing to take part in an RCT?*
- *Develop and test a protocol for best conservative care…*

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Feasibility study

- *Are surgeons willing to take part in an RCT?* **YES**
- *Are patients willing to take part in an RCT?*
- *Develop and test a protocol for best conservative care…*

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Feasibility study

- *Are surgeons willing to take part in an RCT?* **YES**
- *Are patients willing to take part in an RCT?* **YES**
- *Develop and test a protocol for best conservative care…*

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Personalised Hip Therapy

- Physio-led, individualised, progressive programme
- 12 weeks; 6-8 one-to-one sessions
- Education and advice
- Muscle control and core stability
- Strengthening and resistance training



NIHR Commissioned Full Study

FASHION
STUDYING HIP IMPINGEMENT

Full randomised controlled trial of
Arthroscopic **S**urgery for **H**ip **I**mpingement
versus best co**N**ventional care

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- Pragmatic, multi-centre,
  prospective, randomised, controlled trial

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FASHIoN surgeons



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Surgery quality assurance



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Physiotherapists



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Patients

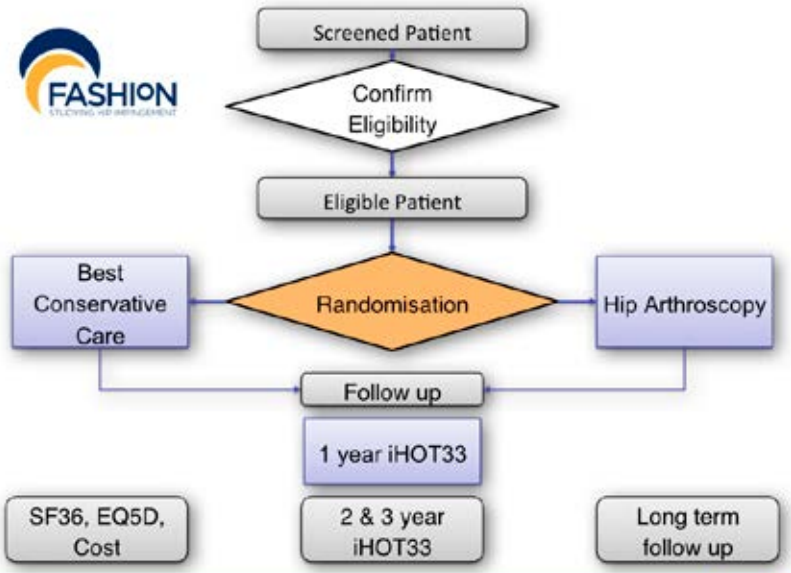
- Adults with hip or groin pain
- Evidence of cam or pincer type FAI
- The treating surgeon believes the patient would benefit from arthroscopic FAI surgery

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Exclusions

- Previous significant hip pathology
- Previous hip injury
- Previous surgery on this hip
- OA
  - Tonnis grade >1 or
  - >2mm loss of superior joint space on AP radiographs

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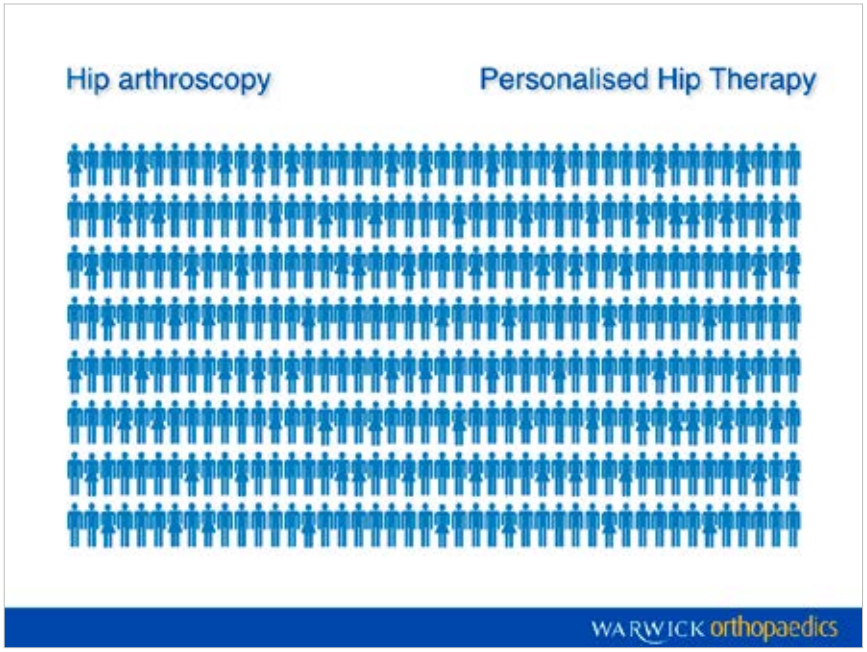
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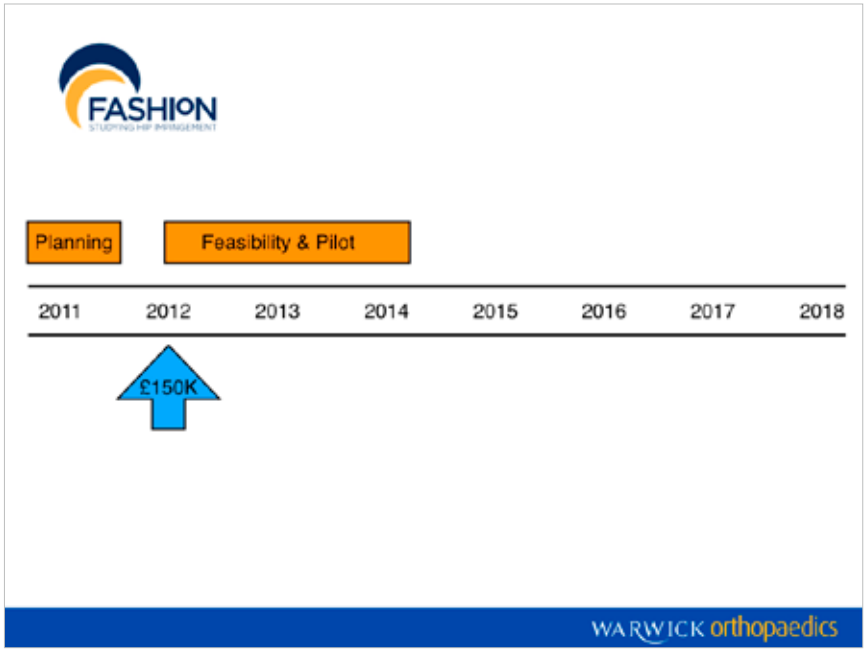
- 90% power
- 6 points on iHOT-33
- $p<0.05$

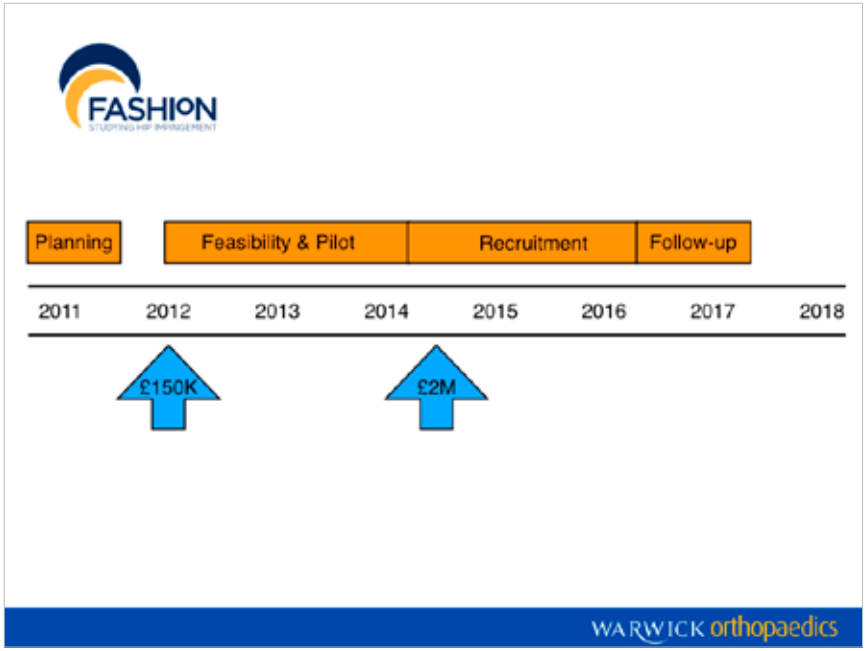
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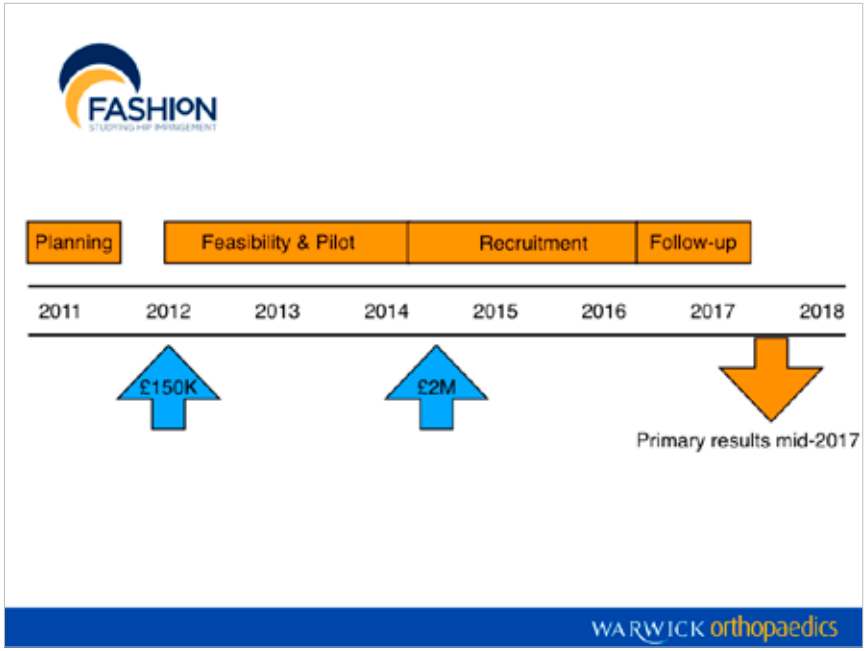


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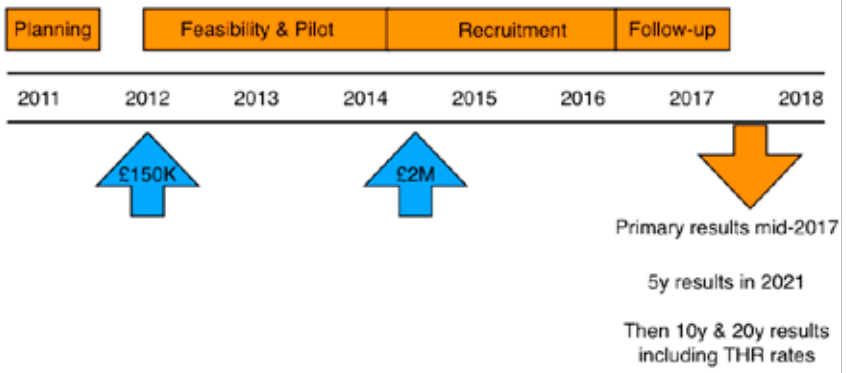

Hip arthroscopy
Personalised Hip Therapy
WARWICK orthopaedics


FASHION
Planning
Feasibility & Pilot
2011
2012
2013
2014
2015
2016
2017
2018
£150K
WARWICK orthopaedics


FASHION
Planning
Feasibility & Pilot
Recruitment
Follow-up
2011
2012
2013
2014
2015
2016
2017
2018
£150K
£2M
WARWICK orthopaedics


FASHION
Planning
Feasibility & Pilot
Recruitment
Follow-up
2011
2012
2013
2014
2015
2016
2017
2018
£150K
£2M
Primary results mid-2017
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FASHION
STUDYING HIP IMPINGEMENT



Primary results mid-2017

5y results in 2021

Then 10y & 20y results including THR rates

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STUDYING HIP IMPINGEMENT

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FASHION
STUDYING HIP IMPINGEMENT

Thank you to everyone contributing!

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Conclusion



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Conclusion

- UK FASHIoN
- Oz FASHIoN
- FAIT
- US Army
- FIRST
- HIPARTI

WARWICK orthopaedics

Conclusion

- UK FASHIoN
- Oz FASHIoN
- FAIT
- US Army
- FIRST
- HIPARTI

- 1138 patients

WARWICK orthopaedics

Conclusion

- UK FASHIoN
- Oz FASHIoN
- FAIT
- US Army
- FIRST
- HIPARTI

- 1138 patients

FASHION
STUDYING HIP IMPINGEMENT

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Current trials

- UK FASHIoN
- Oz FASHIoN
- FAIT Oxford, UK HOS 8/12 AS v physio 120 2017
- FIRST, Canada, Finland AS v AS washout 220 VAS 2012 2017
- HIPARTI, oslo/ Melbourne, AS v diag AS 140 May 2016 2020 iHOT
- US Army WA, AS v physio HOS 2y ?when

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Session 7

FEMOROACETABULAR IMPINGEMENT 1: HOT TOPICS

Arthroscopic surgery for torsional deformity

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CONTACT THE AUTHOR

HAS for impaction-FAI in low femoral antetorsion

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Sports Hip Surgery
St George's Park
27 June 2016

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Warwick







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Antetorsion

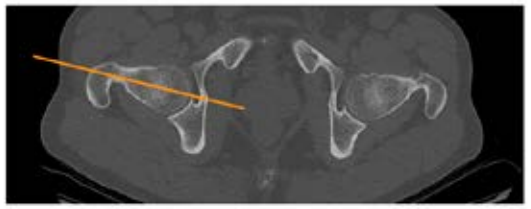
- Twist of the femur between knee and hip
- Normal 15 deg
- Wide range

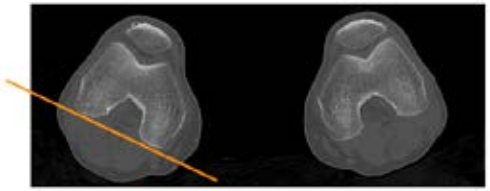


Bob Buly, HSS

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Antetorsion





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Low antetorsion

- Impaction impingement

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Normal hip



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Normal hip



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Normal hip



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Low antetorsion



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Low antetorsion



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Low antetorsion



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Sport-specific internal rotation





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Surgical correction

- Rotational femoral osteotomy
  - Plate or IM nail

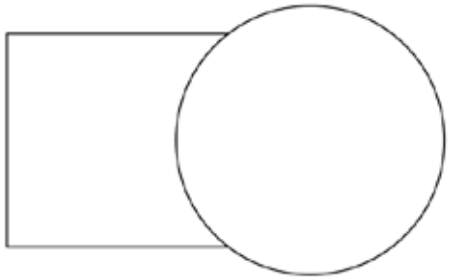






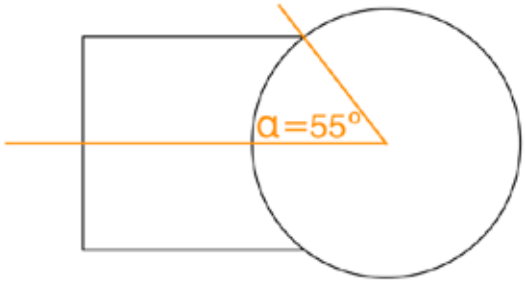
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Selective offset increase



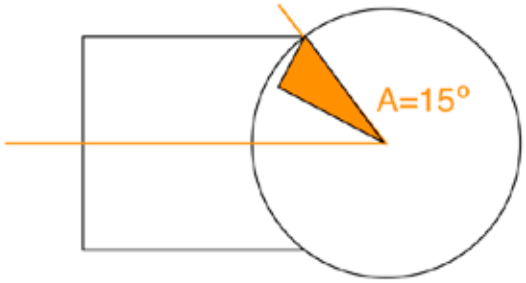
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Selective offset increase



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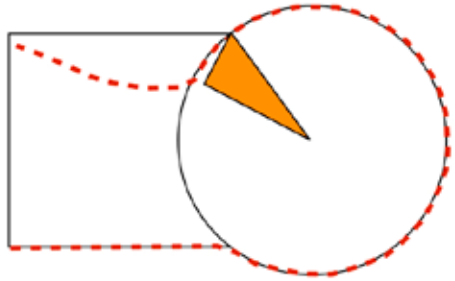
Selective offset increase



- Resection of 25% of neck width increases subtended angle of head by 15°
- Resection depth = sin(A) x head radius ….typically 8mm

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Selective offset increase



Mardones et al. Surgical treatment of femoroacetabular impingement: evaluation of the effect of the size of the resection. JBJS 2005

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Selective offset increase

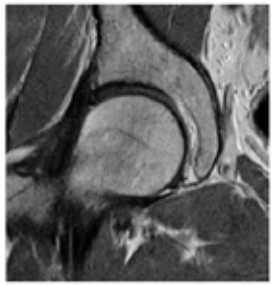


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Patients

- 12 patients (10 male)
- Mean age 25 (17-31)
- Groin pain, mean iHOT33 = 61

- IR in flexion 6°
- Mean α=51°(46-55),
- Mean LCEA 34°(31-37)
- Mean femoral antetorsion +4°(-3 to +7)



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Patients

- Local anaesthetic injection





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Patients

- Local anaesthetic injection tests



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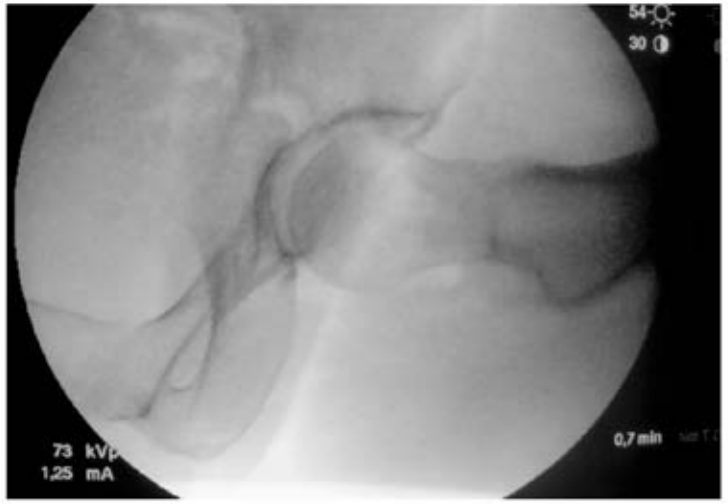
Hip arthroscopy



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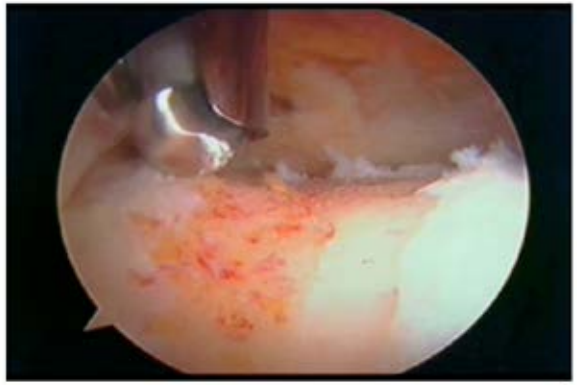
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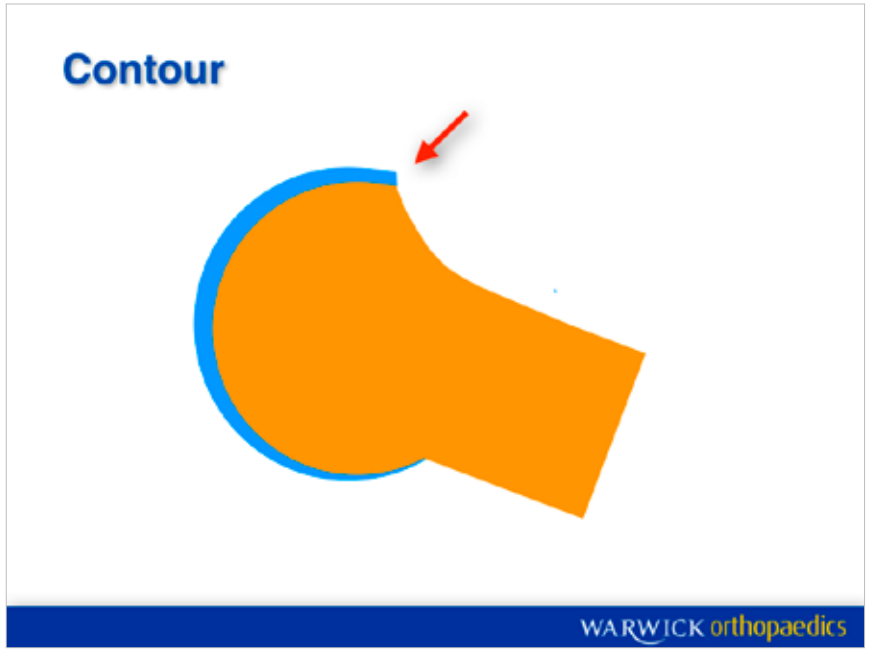
Wiew looking distal from above

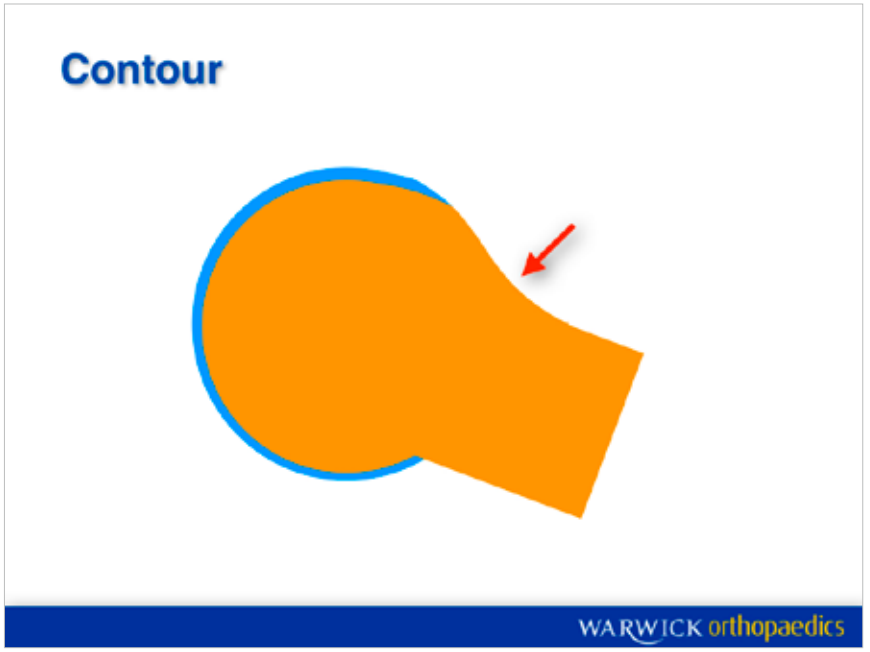
lateral neck

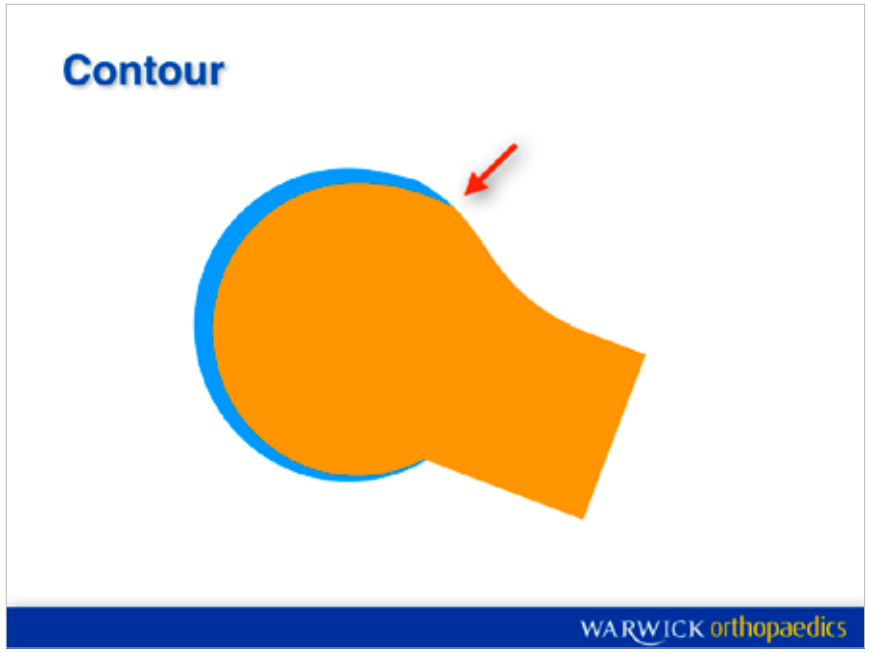


head

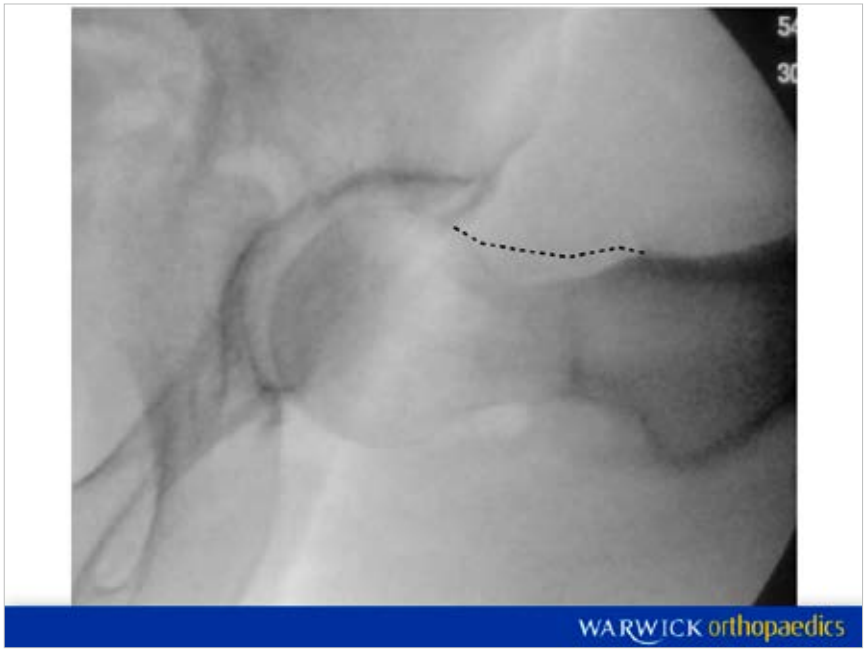
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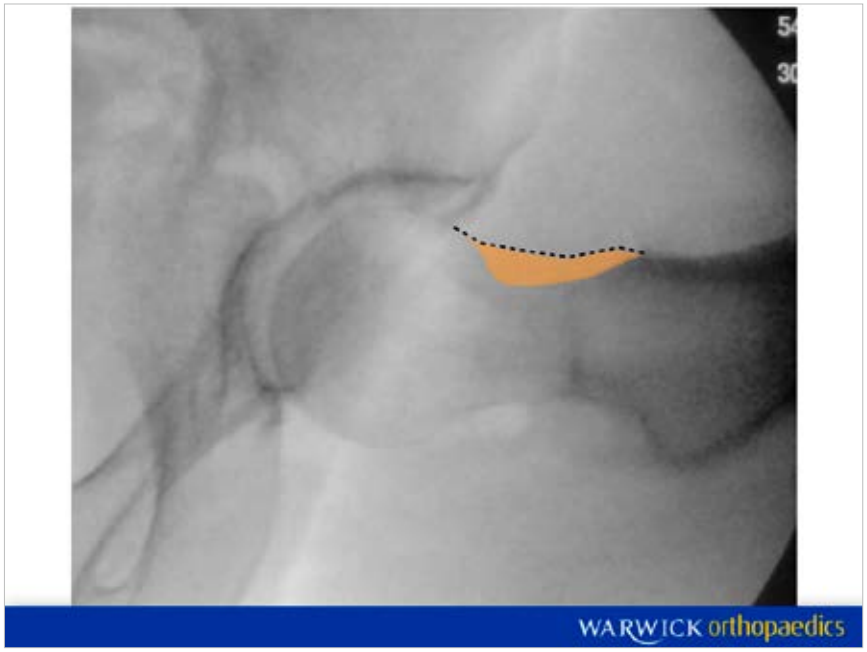

Contour
WARWICK orthopaedics


Contour
WARWICK orthopaedics


Contour
WARWICK orthopaedics


WARWICK orthopaedics





Post op



- CPM
- early ROM
- sensible FWB



WARWICK orthopaedics

Clinical results

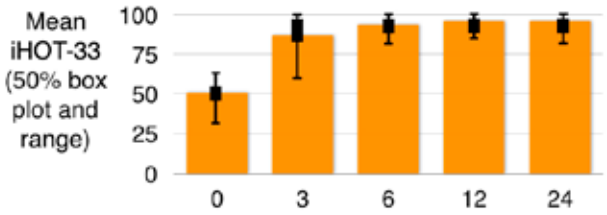
- One patient had steroid injection
- No fractures or instability

- Mean IR improved from 6° to 19°

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Clinical results

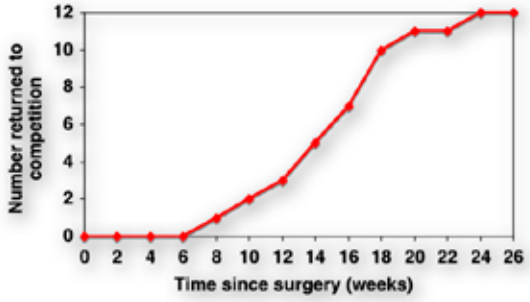
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Return to sport

- All in training by 12 weeks
- 75% return to competition by 18 weeks



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Conclusions

- HAS and offset increase successfully treats impaction FAI in low antetorsion
  - Improves ROM
  - Relieves symptoms
- Seems to be safe to a few degrees of retrotorsion (perhaps -5°)
- Alternative to femoral osteotomy

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Centre for Sports Hip Surgery



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