

Femoroacetabuläres Impingement



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RHEINTAL
WERDENBERG
SARGANSERLAND

- Erstbeschreibung durch Prof Ganz in Bern in den 80 Jahren
- Ein Anschlagen der Schenkelhalses an der Hüftpfanne bei Beugen der Hüfte.
- Dies kann unbehandelt über viele Jahre zum kompletten Verschleiß des Hüftgelenkes führen.

Femoro-acetabuläres Impingmentsyndrome



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Klinik

- Typisch ist der Leistenschmerz
- Ein Ausstrahlender Schmerz in den Oberschenkel
- Bis ins Knie
- Schmerzen im Gesäß - zentrales Gelenk
- C Zeichen
- cave: Sportlerhüfte/chronische Adduktorenreizung

Differentialdiagnosen

- Leistenbruch
- Schleimbeutelentzündungen
- Sehnenansatz Tendinopathien am T.major
- Ausstrahlende Schmerzen von der Wirbelsäule und Becken



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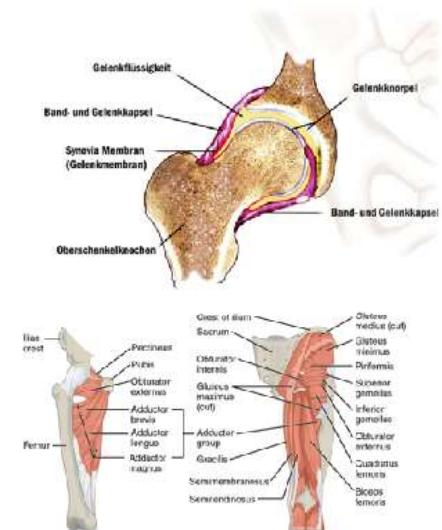
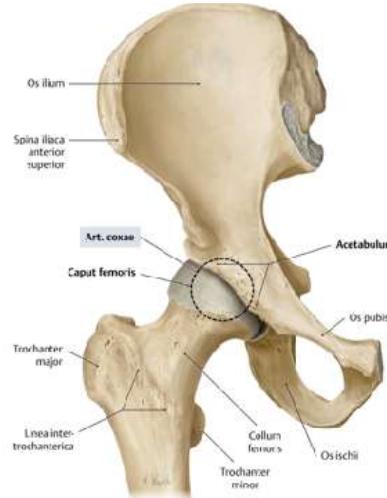


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Die Anatomie des Hüftgelenkes

- Kugelgelenk
- Pfanne - Acetabulum, Facies lunata
- Kopf – oberes Ende des Oberschenkelknochens
- Ligamenta illiofemorale, pubofemorale, ischiofemorale
- Labrum
- Plica synovialis medialis und lateralis

Die Anatomie des Hüftgelenkes



FAI Syndrom Warwick Agreement

What is FAI syndrome?

FAI syndrome is a motion-related clinical disorder of the hip with a triad of symptoms, clinical signs and imaging findings. It represents symptomatic premature contact between the proximal femur and the acetabulum.

Level of agreement: mean score 9.8 (95% CI 9.6 to 10).

FAI Syndrom Warwick Agreement

Table 1 Agreement on terminology relating to femoroacetabular impingement (FAI)

Recommended terminology	Terminology to be avoided
FAI syndrome	Asymptomatic FAI
Cam morphology	Symptomatic FAI
Pincer morphology	FAI morphology
Deformity, abnormality or lesion when referring to cam or pincer morphology	
<i>Level of agreement: mean score 10 (95% CI 9.8 to 10)</i>	

FAI Syndrom Warwick Agreement

What is the prognosis of FAI syndrome?

In patients who are treated for FAI syndrome, symptoms frequently improve, and they return to full activity, including sports. Without treatment, symptoms of FAI syndrome will probably worsen over time. The long-term outlook for patients with FAI syndrome is unknown. However, it is likely that cam morphology is associated with hip osteoarthritis. It is currently unknown whether treatment for FAI syndrome prevents hip osteoarthritis.

Level of agreement: mean score 9.6 (95% CI 9.3 to 9.8).

FAI Syndrom Diagnostik

- Cam Impingment, Alpha Winkel
- Pincer Impingment, acetabuläre Retroversion, Beta Winkel, CE Winkel, AC Index
- Femorale Antetorsion
- Femorale Retrotorsion
- Hüftdysplasie
- Coxa profunda
- Spinopelvic influence

FAI Syndrom Ätiologie und Epidemiologie

- unklar
- exzessiver Sport bei Epiphysenschluss (Cam)
- milde Formen SCFE
- milde Formen Perthes
- Prävalenz bis 25% Männer und 10% Frauen
- Alpha Winkel über 60° 4x Risiko für OA, 80° 10x

FAI Syndrom Diagnostik

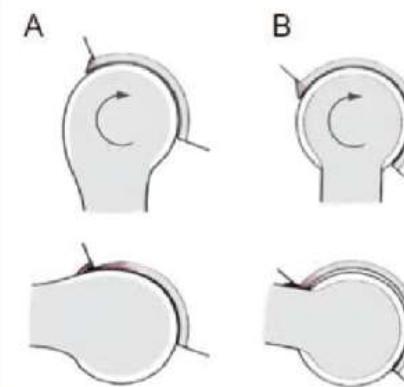
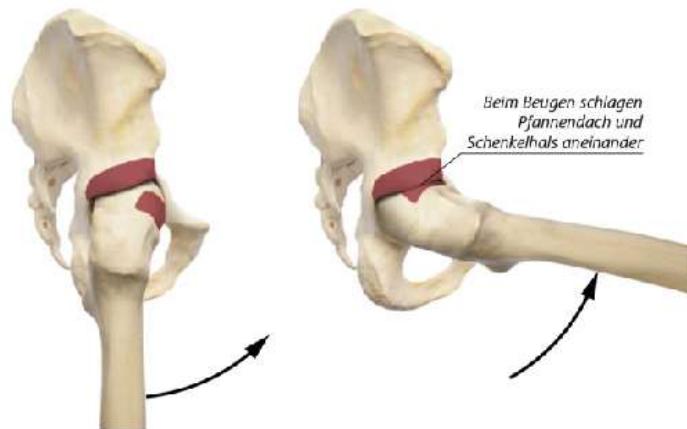


Abbildung 1: Schematische Darstellung der beiden Formen des femoroacetabulären Impingements (FAI): (A) Nockenwellen- oder „cam-type“ FAI und (B) Beisszangen- oder „pincer-type“ FAI (entnommen aus [54], Nachdruck mit freundlicher Genehmigung von Springer Medizin, Urban & Vogel GmbH). Erläuterung siehe Text.

FAI Syndrom Diagnostik



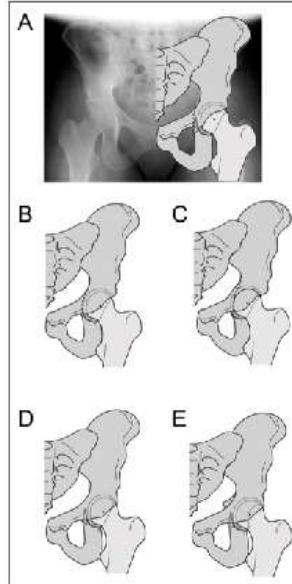
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FAI Syndrom Diagnostik



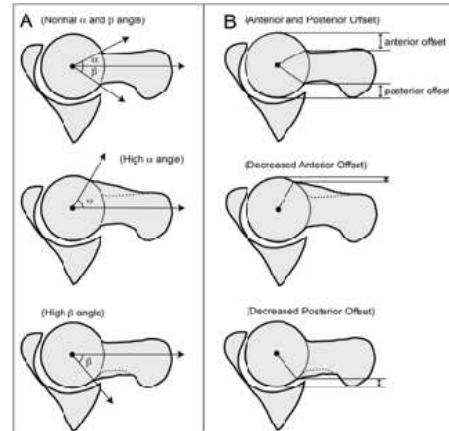
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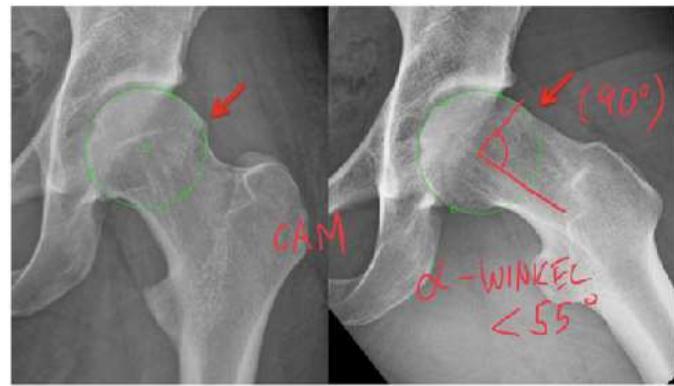
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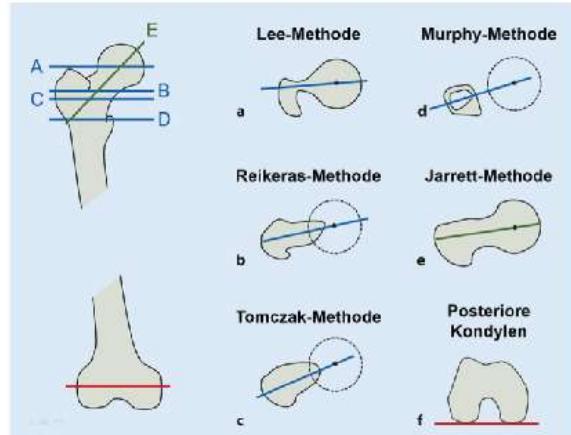
FAI Syndrom Diagnostik „Herniation Pit“



FAI Syndrom Diagnostik „Herniation Pit“



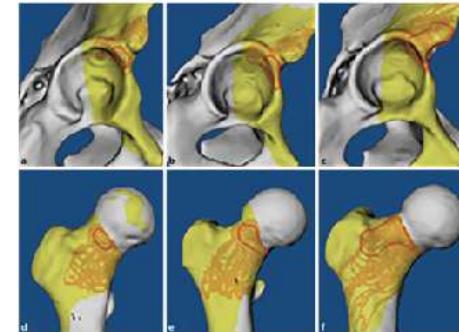
FAI Syndrom Diagnostik femorale Antetorsion



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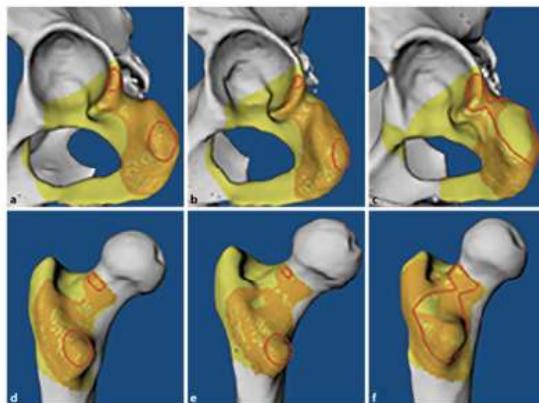
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FAI Syndrom Behandlung

Hip arthroscopy versus best conservative care for the treatment of femoroacetabular impingement syndrome (UK FASHIoN): a multicentre randomised controlled trial

Damian R Griffin, Edward J Dickenson, Peter D H Wall, Felix Achana, Jenny L Donovan, James Griffin, Rachel Hobson, Charles E Hutchinson, Marcus Jepton, Nick R Parsons, Stavros Petrou, Alba Reale, Joanna Smith, Nadine Foster, on behalf of the UK FASHIoN Study Group*



Interpretation Hip arthroscopy and personalised hip therapy both improved hip-related quality of life for patients with femoroacetabular impingement syndrome. Hip arthroscopy led to a greater improvement than did personalised hip therapy, and this difference was clinically significant. Further follow-up will reveal whether the clinical benefits of hip arthroscopy are maintained and whether it is cost effective in the long term.

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FAI Syndrom Warwick Agreement

How should someone with an asymptomatic hip with cam or pincer morphology be managed?

It is not known which individuals with cam or pincer morphologies will develop symptoms and, therefore, FAI syndrome. Preventive measures may have a role in higher risk populations, but it is rarely indicated to offer surgery to these individuals.

Level of agreement: mean score 9.6 (95% CI 9.4 to 9.8).

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FAI Syndrom Behandlung

Table 1. Selected studies investigating arthroscopic treatment of FAI

Study	Patients, N _c	Follow-up	Outcomes	Conclusion/Takes	Other findings
Mercya et al. ¹	512	3.2 y	Giles improved 1 year postoperatively: 77% vs 50% without hip arthroscopy by at least 1 point	NB	Mean change in QoL not significantly different from conservative treatment: 53% SF vs 52% SF; no associated pathology associated with FAI score
Luton et al. ²	113	27 mo	HIPSS: 37% had moderate to severe FAI; radiographic joint space narrowing	32% Pw and 52% FAIS at 2 years; 10% improvement	Initial 3-year average and longer-term outcomes needed to know
Espinosa et al. ³	100	14 mo	HIPSS improved 1 year postoperatively: 80% vs 50% improvement for pain	Pw and FAIS improved 1 year postoperatively	Pw and FAIS improved 1 year postoperatively
Philippou et al. ⁴	102	2.9 y	HIPSS improved 1 year postoperatively: 79% vs postoperative pain reduction mean 3 points	NB	Pain reduction, loss of patellofemoral function, and lateral hip pain associated with improvement in radiographic joint space
Espinosa-Jones ⁵	113	1 y	HIPSS improved 12 points (prospective) vs 9 (postoperatively)	12% relative to 17% (7% professional, 1% self-employed, 1% retired, 1% regular sports)	Incidence and update cartilage and FAIS 9.8%
Uebelhart et al. ⁶	112	18 mo	WOMAC: improved 10% (24 prospective vs 14 retrospective), 77% satisfied w/ exp. outcome w/ respect to relief	4% FAIS if restricted independently	Patients with early FAIS significantly lower WOMAC scores than those without FAIS
Philippou et al. ⁷	90	5.4 y	HIPSS improved 10 points (prospective) vs 7 points (postoperatively); 92% improvement 1 year postoperatively (prospective vs 81% postoperatively)	NB	Less than half of FAIS patients improve independently
Ha et al. ⁸	47	27 mo	HIPSS improved 68 points (prospective) vs 65 points (postoperatively); 92% improvement 1 year postoperatively (prospective vs 81% postoperatively)	7% unable to return to work level of play	Arthroscopic correction from FAIS diagnosis prospectively vs 81% postoperatively
Fabiani et al. ⁹	21 ^a	5.5 y	HIPSS improved 29 points (prospective) vs 26 points (postoperatively); 74% improved by 14 points after 5 years (prospective participation improved)	No inferior preoperative complications or requirements	No difference in final scores for lateral dislocation versus retrolistiosis

FAI, femoroacetabular impingement; HIPS, Hip Outcome Score-HIPS; FAIS, Femoroacetabular Impingement At-Risk; OA, osteoarthritis; QoL, quality of life; Pw, patient's view; SF, SF-36; WOMAC, Western Ontario and McMaster Universities Osteoarthritis Index.

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FAI Syndrom Konservative Behandlung

- bei milden Formen ist ein konservative Versuch möglich
- Physiotherapie
- Infiltrationen (Kortison, ACP, Hyaluronsäure)

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FAI Syndrom Operative Behandlung

- Genaue Diagnose!
- Chirurgische Hüftluxation
- Miniopen Schenkelhalsplastik
- **Arthroskopische Hüftchirurgie**
- (Subtrochantäre) Derotationsosteotomien
- Periazetabuläre Osteotomien (Ganz)
- Kombinationen



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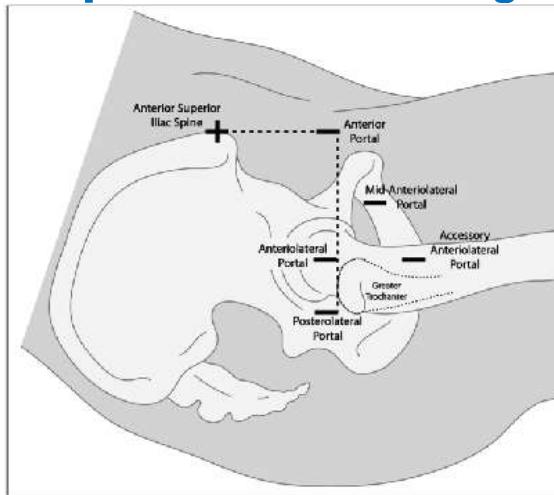
FAI Syndrom Operative Behandlung

- Hüftarthroskopie
- 70° Optik
- Traktionstisch
- lange Instrumente
- Kapselmanagement



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FAI Syndrom Operative Behandlung



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FAI Syndrom Operative Behandlung gemischtes Impingement



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FAI Syndrom Operative Behandlung



FAI Syndrom Operative Behandlung



FAI Syndrom Operative Behandlung



FAI Syndrom Operative Behandlung



FAI Syndrom Operative Behandlung



FAI Syndrom Operative Behandlung



FAI Syndrom Operative Behandlung



FAI Syndrom Operative Behandlung



FAI Syndrom
Operative Behandlung RP 21 yo,
CAM+Retrotorsion



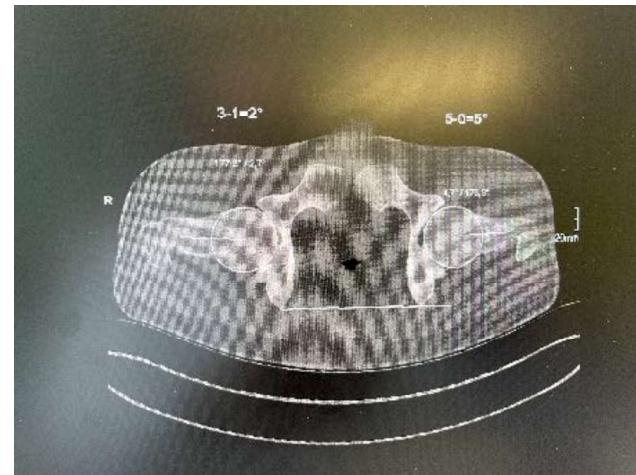
FAI Syndrom
Operative Behandlung RP 21 yo,
CAM+Retrotorsion



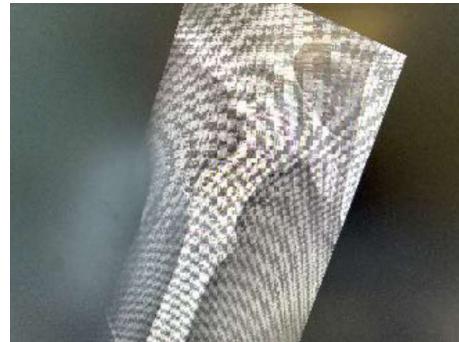
FAI Syndrom
Operative Behandlung RP 21 yo,
CAM+Retrotorsion



FAI Syndrom
Operative Behandlung RP 21 yo,
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FAI Syndrom
Operative Behandlung RP 21 yo,
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FAI Syndrom
Operative Behandlung RP 21 yo,
CAM+Retrotorsion



FAI Syndrom
Operative Behandlung RP 21 yo,
CAM+Retrotorsion



FAI Syndrom
Nachbehandlung

- 20 kg TB für 4-6 Wochen
- bei Labrumrefixation Flex Limite 60 grad für 6 Wochen
- KontaktSport ab 4 Monat
- Heilungsprozess bis 6 Monate

FAI Syndrom Take Home

- meist Kombinationssyndrom
- hohe Prävalenz
- Präarthrose
- operative Therapie der konservativen Überlegen
- unklare Ätiologie mit mechanischer Komponente