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# Femoroacetabular impingement syndrome: Treatment and clinical decision making

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In the last decade there has been an increased focus on activity-related hip and/or groin pain in younger individuals participating in sports, commonly diagnosed as femoroacetabular impingement (FAI) syndrome (1, 2). Following clinical examination and imaging to confirm or rule out the diagnosis, a decision must be made regarding treatment followed by involving and engaging the patient in a decision-making process prior to consenting to treatment.

## Healthcare and informed consent

By law, it is required to obtain informed consent prior to initiating any examination and treatment (3). This ‘informed’ consent involves informing the patient about the current evidence for different treatment options for the specific condition. It further includes information about potential harms of the proposed treatments (3). This enables the patient to participate actively in the decision-making process about the treatment.

## Evidence-based practice

In addition to including current scientific evidence, the patient’s preference, concerns and expectation as well as the experience/’expertise’

of the clinician should be incorporated into the decision process (4).

## Current evidence for treatment of FAI syndrome

What is the current evidence level for treatment of patients with FAI syndrome? So far, no systematic review and meta-analysis has been published comparing the two most commonly used treatment options: arthroscopic hip surgery and exercise therapy. However, within the last year, two large multicenter randomized clinical trials (RCT) have been published comparing hip arthroscopic surgery to either a personalized hip therapy program or an individual goal oriented exercise program including activity modification (5, 6).

To assist the clinician (as well as the patient) in the information and decision process, the following figures and table provide very short summaries of the results of these two recently published RCTs. The figures compare the primary outcome examined in the two trials and the table lists the benefits and harms between hip arthroscopic surgery and the non-surgical approach.

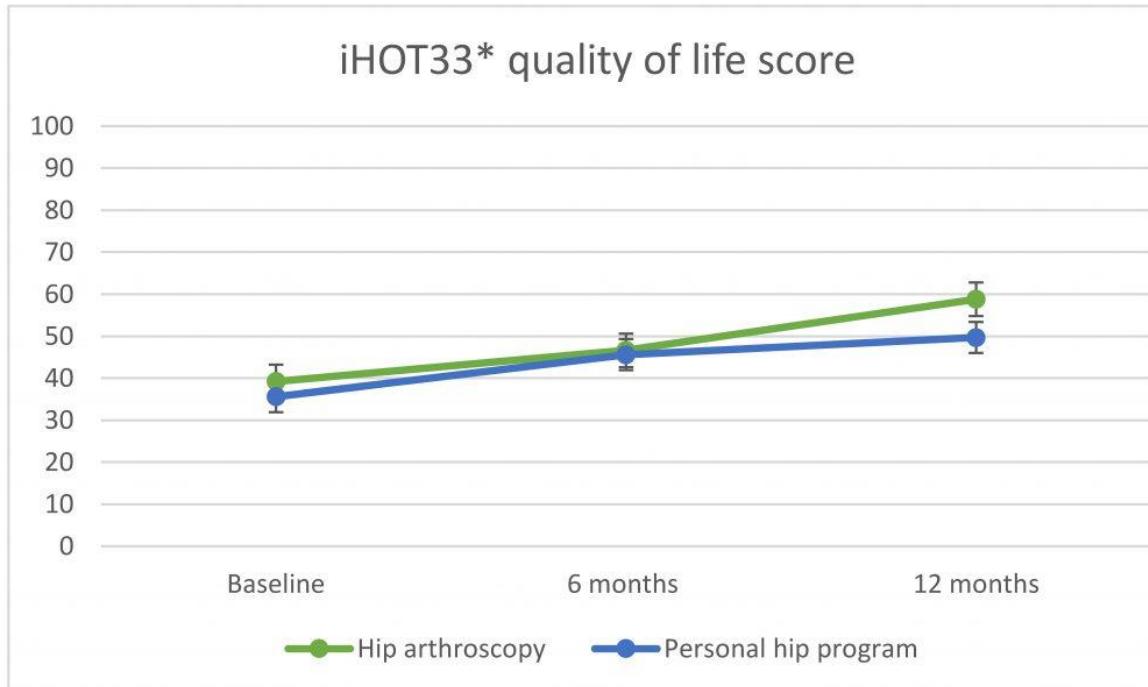


Figure 1. Primary outcome from Griffin et al. 2018 \* international Hip Outcome Tool (0 = worst, 100 = best)

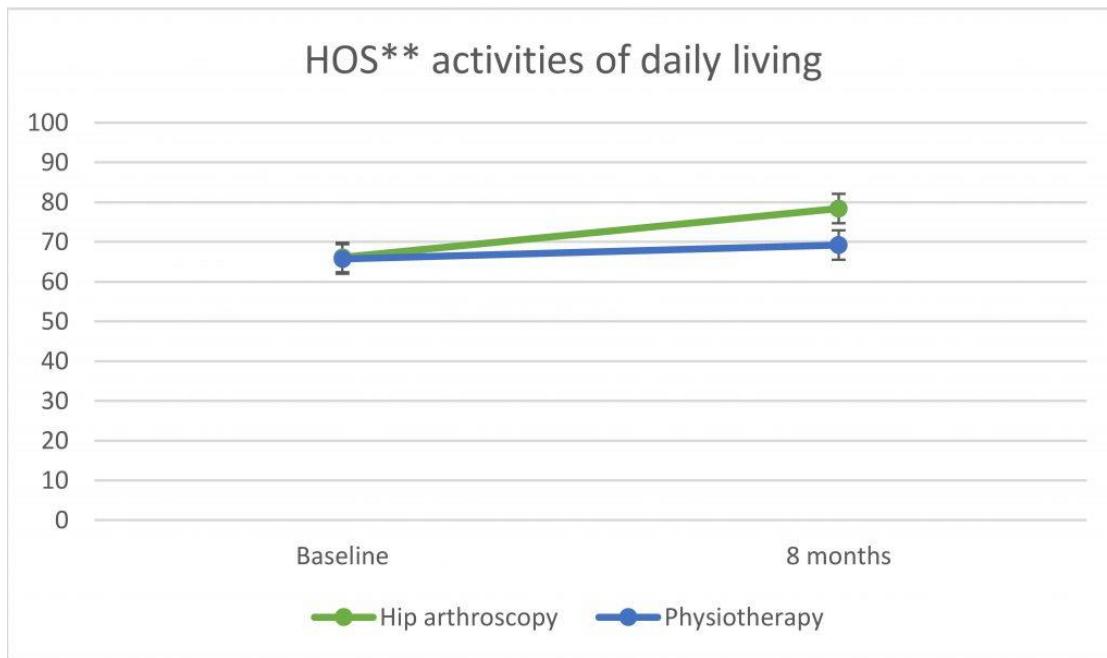


Figure 2. Primary outcome from Palmer et al. 2019 \*\* Hip Outcome Score (0 = worst, 100 = best)

**Table 1. Change in patient-reported outcomes from baseline to final follow-up:**

	<b>Personalized hip program</b>	<b>Hip arthroscopy</b>
Activities of daily living (iHOT33) (6)	Change from 66 to 69 (scale 0 – 100†)	Change from 66 to 78 (scale 0 – 100†)
Hip related quality of life (HOS) (5)	Change from 36 to 50 (scale 0 – 100†)	Change from 39 to 59 (scale 0 – 100†)
Adverse events (5,6)	- muscle soreness	- muscle soreness - numbness in groin, leg or foot - extra hospital visits - infection

† (0 = worst, 100 = best)

In both studies, on average patients benefit significantly (but slightly) more from having hip arthroscopy in comparison to a personal exercise therapy program. However, neither groups are symptom free at any of the follow-ups and in the second study (6) the authors state: “Up to half of patients may not improve to a satisfactory clinical level after arthroscopic surgery” (6). This pertains as well for the non-surgical approach and information relevant to convey to the patient setting up treatment goals.

#### **Additional information to the patient prior to decision-making**

A large proportion of individuals diagnosed with FAI syndrome have participated or still participate in sports at various levels. However, not all are able to return to the same level of their sport following e.g. hip arthroscopic surgery. Recent studies report different rates of returning to sports at pre-injury level ranging between 57-82% (7-9). This indicates expectations levels from any of the treatment methods should be modified accordingly. In addition, no strong evidence is available about predictors informing

which patients with FAI syndrome will benefit the most from hip arthroscopic surgery or a non-surgical treatment regime. Further, proposing that surgery for cam, pincer and/or labral tears will prevent or delay development of osteoarthritis in the hip is speculative. No sufficient evidence with the relevant long-term follow-up is currently available to support this. Lastly, hip arthroscopic surgery for cam, pincer and labral tears in the middle age and older (>40 years) have less favorable results compared to surgery in the younger population (10).

#### **Conclusion – empowering the patient**

Informing and applying the current evidence including benefits and harms of possible treatment options in a format comprehensible to the patient will allow for an informed decision based on individual preferences and concerns. This process will require time, both for the clinician and for patient comprehension. However, the time is well spent and essential for the future wellbeing of the patient and will likely improve compliance with treatment.

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# Medial tibial stress syndrom – Hvad er det og hvordan behandles det?

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## Introduktion

Medial Tibial Stress Syndrome (MTSS) er en overbelastningsskade, som oftest præsenterer sig hos personer med et højt vedvarende aktivitetsniveau (1) og er karakteriseret ved en aktivitetsrelateret smerte og irritation langs den midterste- og nederste tredjedel af den posteromediale kant af tibia (2,3). Der findes til dato ingen fælles anerkendt definition eller terminologi, hvorfor tilstanden i litteraturen er beskrevet med forskellige navne, blandt andet 'shin splints', 'shin soreness' og 'medial tibial stress syndrome'. Den mest anvendte term er MTSS, da et syndrom netop skildrer fraværet af kendt defineret patogenese, men angiver præsentation af en samling kendte kliniske symptomer, fænomener og/eller karakteristika (1–3).

Yates og White forsøgte I 2004 at definere MTSS: "*Pain along the posteromedial border of the tibia that occurs during exercise, excluding pain from ischaemic origin or signs of stress fracture*" suppleret med kendt palpationsømhed langs den posteromediale kant af tibia i en længde på  $\geq 5$  fortløbende centimeter (2,3). Definitionen af Yates og White er i nyere videnskabelig litteratur klart overrepræsenteret, men endnu ikke officielt godkendt, hvorfor forfattere kan definere MTSS uafhængigt af

hinanden (1,3). Selvom den anatomiske placering af MTSS er veldefineret, er patogenesen altså fortsat uklar (4–6). De mest anerkendte hypoteser er 'traktion-induceret periostitis', 'crural fasciitis', 'overbelastning longitudinalt på tibia' eller en kombineret påvirkning af disse strukturer (2). Tidlige studier har forsøgt at specificere hvilken muskel eller hvilke muskelgrupper, der kan relateres til MTSS (2,3). Flere muskler beskrives som potentielt involveret, bl.a. m. soleus, m. flexor digitorum longus og m. tibialis posterior. Af disse fremhæves m. soleus, da der stilles store krav til musklens styrke under den eksentriske kontraktion ved fod-i-sæt (fra inversion mod eversion) og særligt under høj-repetitive bevægelser som ved løb. Ved nedsat styrke vil den gentagne belastning medføre uhensigtsmæssig stor periosteal traktion (6).

For sportsaktive udgør MTSS omrent 60 % af alle overbelastningsskader i underbenet (5). Da en overbelastningsskade typisk opstår som en konsekvens af ændret træningsmønster, er MTSS ofte præsenteret hos løbere og atleter, hvis sportsgrene involverer gentagende hop og/eller kræver stor eksplosivitet (3). For løbere er udviklingen af MTSS ofte relateret til øget træningsintensitet, ændret fodtøj eller nyt træningsmiljø (1).



Billede 1: ”Medial tibial stress syndrom er karakteriseret ved en aktivitetsrelateret smerte og irritation langs den midterste og nederste tredjedel af den posteromediale kant af tibia, forsøgt illustreret på billedet”.

akkumulere risikoen for at pådrage sig MTSS (8).

### Diagnose

Der findes ingen kliniske test, som kan diagnosticere MTSS. Der er dog konsensus om, at palpationsømhed langs midterste- og nederste tredjedel af den posteromediale kant af tibia i kombination med anamnese er blandt de vigtigste diagnostiske værktøjer og ofte tilstrækkeligt til at identificere og klinisk diagnosticere MTSS (2). Det kliniske billede er gradvist indsættende symptomer i forbindelse med fysisk aktivitet, som i starten vil aftage, så snart den fysiske aktivitet stoppes. Som tilstanden forværres, kan patienten have smerter under og efter fysisk aktivitet og siden hen hvilesmerter (7). Differentialdiagnoser til MTSS er tibial stress fraktur, kronisk aktivitetsinduceret kompartmentsyndrom og indeklemning af arteria poplitea (1). Billeddiagnostik er ikke indiceret ved ukompliceret MTSS, men ved mistanke om større stress induceret vævsskade, eller *red flags*, kan billeddiagnostiske værktøjer være berettiget (7).

### Risikofaktorer

Der er identificeret fem signifikante risikofaktorer for udvikling af MTSS: Hvis du er kvinde, øget navikulært drop, øget BMI, er kendt med en tidligere løbeskade og/eller har øget hofte udadrotation med hoften i 90° fleksion. Der er ingen klar indikation af hvilke faktorer som skal betragtes som primære risikofaktorer. Tilstedeværelsen af flere risikofaktorer vil dog

### Behandling og effektmål

Generelt har de videnskabelige studier et større fokus på ætiologien og potentielle risikofaktorer snarere end behandlingen af MTSS. Overordnet inddeltes behandlingsforløbet i tre faser (1,9). Den første fase har til formål at reducere smerte og inflammation. Hvile og/eller aktivitetsmodificering er indiceret i denne fase og skal forventes i en periode fra 2 til 6 uger vurderet ud fra graden af MTSS (9). Derudover kan der suppleres med NSAID som smertestillende og anti-inflammatorisk præparat (1). Den næste fase indeholder introduktion af tolereret isometrisk- og koncentrisk styrketræning samt proprioceptions træning. Når patienten kan udføre dette uden symptomforværring, kan sidste fase initieres bestående af eksentrisk- og plyometrisk træning (9).

Trods generel anerkendelse og brug af ovenstående faseinddeling, så er der stadig mangelfuld klinisk evidens for fysioterapeutiske interventioner i behandlingen af MTSS (2). Ingen kritiske reviews eller meta-analyser har fundet signifikant evidens for at specifikke behandlingsinterventioner er bedre end hvile og/eller aktivitetsmodificering målt på smertescore, selvvurderet behandlingseffekt og return-to-sport (dage) (3,10).

Straæk- og styrkeøvelser har ingen effekt på return-to-sport (moderat evidens). Indlægssåler har ingen effekt på selvurderet behandlingseffekt eller smertereduktion hos personer med generelle underbenssmærter (lav evidens). En specialdesignet indlægssål har ingen selvurderet behandlingseffekt sammenlignet med præ-fabrikeret indlægssåler (lav evidens). Skinnebens ortoser har ingen

effekt på return-to-sport (meget lav evidens). Akupunktur har moderat effekt på smertereduktion (meget lav evidens). Shockwave har stor effekt på selvurderet behandlingseffekt og reduktion af smærter (meget lav evidens). Der er ingen studier der undersøger behandlingseffekten af manuel behandling (3,10).

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# Ultrasound guided needling vs. extracorporeal shockwave for the treatment of calcific tendinitis in the rotator cuff

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Calcific tendinitis and associated inflammation of the rotator cuff is a frequently occurring disorder in which anti-inflammatory medication, exercise therapy and corticosteroid injection are recommended as first line treatments. More invasive techniques like shock wave and ultrasound guided needling (UGN see BOX1) can be utilized prior to arthroscopy. But is UGN or shockwave preferable? *Louwerens et al.* examined this in a randomized controlled study from February 2020.

Participants had subacromial pain syndrome and a concurrent calcification in a rotator cuff tendon with a diameter of  $\geq 5$  mm. Participation required shoulder pain  $\geq$  four months and insufficient relief from physiotherapy, anti-inflammatory medication and a subacromial corticosteroid

injection. Participants with partial or full rotator cuff rupture were excluded.

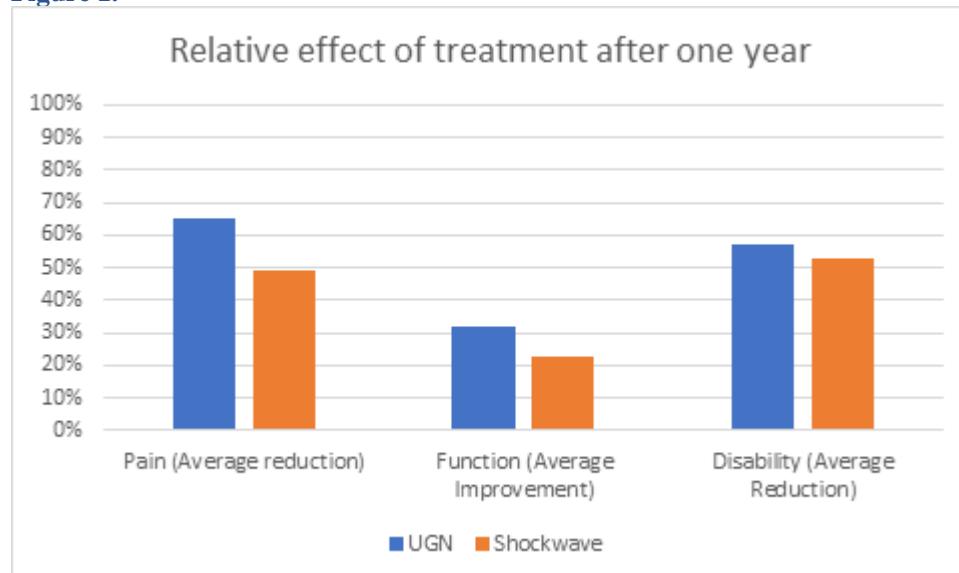
Randomization was done electronically but blinding of participants was not possible due to the nature of the treatments. A total of 82 patients participated in the study. On average, they were 52 years old, had been symptomatic for  $\geq 3$  years and their pain intensity were equivalent to 5.9 cm on a 10 cm visual analogue scale (VAS). Clinical outcomes were measured after one year and included pain intensity (VAS), function (Constant-Murley Score) and disability (Disability of Arm, Shoulder and Hand score) (see table 1 for relative effect)

**Table 1.** Relative effect of treatment after one year.

	UGN	Shockwave
Pain (Average reduction)	65%	49%
Function (Average Improvement)	32%	23%
Disability (Average Reduction)	57%	53%

Calculated as baseline mean divided by one-year mean.

**Figure 1.**



**Table 2.** Effect of treatment after one year.

	UGN Mean (95%CI)	Shockwave Mean (95% CI)
VAS pain (Average reduction)	-3.9 (-4.6 to -3.1)	-2.6 (-3.7 to -1.6)
CMS (Average improvement)	20.9 (16.9 to 24.8)	15.7 (10.1 to 21.3)
DASH (Average Reduction)	-20.1 (25.4 to 14.8)	-20.7 (27.2 to -14.2)

VAS, Visual analogue scale; CMS, Constant-Murley score; DASH, Disability of Arm, Shoulder and Hand score.

### BOX 1. Ultrasound guided needling

*ULTRASOUND GUIDED NEEDLING, ALSO KNOWN AS BARBOTAGE, IS AN ULTRASOUND GUIDED LAVAGE TECHNIQUE USING TWO NEEDLES. THE CALCIFICATION IS PUNCTURED MULTIPLE TIMES WITH ONE NEEDLE WHILE ASPIRATION AND LAVAGE IS PERFORMED WITH THE OTHER. THE PROCEDURE IS DONE USING LOCAL ANAESTHETIC AND CORTICOSTEROID INJECTION TO MINIMIZE INFLAMMATION.*

None of the treatments had serious side effects but patients reported experiencing greater pain during shockwave treatment versus UGN (6.2 cm vs. 4.5 cm on a 10 cm VAS). In addition, 41% of patients receiving shockwave had additional treatment versus 22% in the UGN group. In the shockwave group, additional treatment consisted of arthroscopy with removal of bursa (7 patients), conversion to UGN (5 patients) and corticosteroid injection (5 patients). In the UGN group, the additional treatment consisted of corticosteroid injection (9 patients).

The study was well performed. The authors addressed several limitations in the discussion including the lack of a control group receiving no treatment. Here the authors explained that they tried to compensate for a lack of a “waiting

list group” by only including patients who had failed previous conservative treatment.

Both treatments were effective, but UGN led to better results in pain reduction, increased function and decreased disability scores. Furthermore, UGN as a treatment was less painful and patients receiving UGN required fewer additional invasive treatments. It should be noted that the results presented are for the intention to treat analysis, thus the effect of shockwave alone could be less than reported.

For patients with subacromial pain syndrome due to calcific tendinitis and insufficient relief from physiotherapy, anti-inflammatory medication and a subacromial corticosteroid injection – UGN would be the preferred treatment option and a skill that clinicians should master.

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# Physical disability – the impact on the shoulder and possibilities for adapted training

- Udgivet 6. januar 2020

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## Wheelchair use and shoulder pain

The shoulder is one of the most common sites of chronic musculoskeletal pain in people with spinal cord injury (SCI) (1, 2), and shoulder pain can reduce independent function and quality of life (3, 4). Individuals using a manual wheelchair as their primary form of mobility rely heavily on their upper limbs to maintain independence. Although shoulder pain has a multifactorial aetiology in people with SCI, increased biomechanical load imposed on their upper limbs may be an important factor (5). At the Center for Research in Adapted Physical Activity, University of Southern Denmark, Odense, two reviews, a systematic review and a scoping review are currently being conducted with specific foci on; Which exercises should wheelchair users with SCI perform to treat and/or prevent shoulder pain, and how does the context influence when individuals dependent on a wheelchair or another assistive device train.

## How to treat and/or prevent shoulder pain?

Physiotherapy interventions are recommended as preferable to medical interventions when treating shoulder pain in people with SCI (6).

Therapeutically administered exercise has shown to decrease shoulder pain, improve function and improve quality of life in manual wheelchair users (7, 8). However, to date, the effectiveness of physiotherapy interventions in treatment of shoulder pain in manual wheelchair users have been insufficiently explored. Knowledge about prevention strategies for shoulder pain in people with SCI is also limited.

This systematic review with meta-analysis on active exercises and prevention strategies of shoulder pain in people with SCI is being performed in an international collaboration with researchers from Curtin University in Perth,

Western Australia, and will address the specific questions “What is the efficacy of active physiotherapy interventions in comparison with no or passive interventions in treating shoulder pain, decreased function and quality of life in manual wheelchair users with spinal cord injury?”, and “ What is the efficacy of active physiotherapy interventions in comparison with no or passive interventions in preventing shoulder pain and decreased function in manual wheelchair users with spinal cord injury?” Informed clinicians will be able to more effectively assist people in reducing and preventing shoulder pain, in addition to improving function and quality of life (PROSPERO 2019 CRD42019136693 Available from: ([https://www.crd.york.ac.uk/prospero/display\\_record.php?ID=CRD42019136693](https://www.crd.york.ac.uk/prospero/display_record.php?ID=CRD42019136693))

## Where to train with a physical disability?

Individuals with a physical disability are at risk of dying earlier than the normal population (9), with the primary cause being cardiovascular disease (10). Also a higher risk of common lifestyle diseases, such as myocardial infarct, overweight, hypertension, diabetes are reported for people especially with SCI and being wheelchair bound. At the same time this group has the lowest level of physical activity (11). With the knowledge that physical training may reduce the risk of several lifestyle diseases (12), and even improve shoulder function and quality of life and prevent shoulder pain (13), fitness centres have been suggested to be the place for this training. However, currently people with physical disabilities are often excluded from fitness centres due to inaccessible buildings, unsuitable fitness environments, lack of knowledge about exercising or stigmatising.

The Danish PhD project “Fitness for all – fitness for people with physical disabilities” is a project of how to build or rebuild fitness centres to make them more accessible and usable for people with physical disabilities and is scheduled to deliver a thesis in 2020. One project objective is to identify and summarize the evidence on barriers and facilitators for fitness centre participation among adult people with or without physical disabilities. The research question addressed in the scoping review is; “Which factors influence

fitness centre participation for adult people with or without physical disabilities?” (ZENDO 10.5281/zenodo.1409586. Available from: (<https://doi.org/10.5281/zenodo.1409587>)). Knowledge about the possibilities or lack of possibilities for training in fitness centres, may be a key factor for increasing physical activity in people with and without physical disability, as a means of maintaining highest possible level of physical capacity, and hopefully reducing lifestyle diseases.

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# Definition, diagnostik og behandling af laterale hoftesmerter – er trochanterbursitten død?

- Udgivet 29. oktober 2020

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Laterale hoftesmerter, udvendige hoftesmerter, gluteal tendinopati, GTPS, trochanterbursit – kært barn har mange navne. I denne artikel vil vi komme en definition nærmere og give et overblik over denne smertefulde tilstand som overvejende rammer to patientgrupper: Midaldrende kvinder og idrætsudøvere. Hvad er årsagen? Hvordan stilles diagnosen? Og hvordan behandles den?

## Definitioner og årsager

Laterale hoftesmerter er en overbelastningstilstand kendtegnet ved smerter på ydersiden af hoftenes øvre del. Smerterne opstår typisk på baggrund af øget aktivitet og rammer især idrætsudøvere (primært løbere) og kvinder over 40 år (aktive eller ikke aktive). Incidensen i almen praksis er 1,6-3,3/1000/år, og tilstanden er dermed blandt de tre hyppigste tendinopatier i underekstremiteten [1-3].

På baggrund af den manglende fælles anerkendte terminologi, og det faktum at man rent klinisk ikke altid kender den specifikke patologi uden tilgang til billeddiagnostik, anvendes begrebet 'greater trochanteric pain syndrome' (GTPS). Denne terminologi dækker over det beskrevne symptombilledet med smerter på ydersiden af hoften uden hensyntagen til de specifikke histologiske og radiologiske sene- og bursaforandringer der måtte være. Tidligere har den generelle opfattelse været, at smerterne skyldes inflammation i bursa trochanterica [4] men i de seneste år har forskning vist at tilstanden i højere grad skyldes skader eller degeneration i gluteus medius og -minimus-senernes tilhæftning på trochanter major [5,6]. Et nyt systematisk review har vist, at forekomst af decidederede bursaforandringer er sjældne og forekommer hos ned til 10 % af patienter med GTPS [7]. Årsagen til GTPS er sandsynligvis en kombineret belastning med adduceret position af hofteleddet og øget spænding i tractus iliotibialis,

som medvirker til kompression af gluteus medius- og minimus-senerne [8].

## Symptomer og kliniske fund

GTPS præsenterer sig klassisk med smerter udvendigt på hoften som forværres ved direkte palpation over trochanter major. Patienten vil have nedsat funktionsniveau med smerter ved aktiviteter som gang, løb og trappegang, almindelig stand, sideleje samt at rejse sig fra en stol [9]. For en del af patienterne bliver tilstanden langvarig. Op til 63 % har vist sig stadig at have smerter fem år efter besøg hos den praktiserende læge [1]. For idrætsudøvere kan smerterne betyde en begrænsning i den vanlige træningsaktivitet og måske pause fra sport.

GTPS er overvejende en klinisk diagnose. Der findes ikke nogen konsensus om diagnostiske kriterier for GTPS, men flere studier har undersøgt validiteten af forskellige kliniske tests [5,10-12]. Tilstedeværelsen af smerter udvendigt på hoften proksimalt, som kan reproduceres eller forværres ved direkte palpation, er et vigtigt klinisk fund [13-15]. Et systematisk review fra 2017 har på baggrund af litteraturen anbefalet diagnostiske kriterier som værende: 1) smerter på ydersiden af hoften, 2) reproducerede smerter ved palpation af trochanter major, 3) positiv FABER test [10] (smerter udvendigt på hoften ved samtidig fleksion, abduktion og ekstern rotation i hofteleddet), 4) ingen smerter ved at tage sko og strømper på [14]. En anden nemt udførlig test med en høj positiv prædiktiv værdi er single leg stance test, som er positiv hvis patientens udvendige hoftesmerter reproduceres eller forværres inden for 30 sekunder stående på ét ben [10]. Den diagnostiske nøjagtighed kan øges ved at bruge et større batteri af tests, og det mulige omfang heraf må afgøres i den enkelte kliniske situation.

Hvis patienten ikke har smerter ved direkte palpation over trochanter major, er det usandsynligt at diagnosen er GTPS, og det anbefales at undersøge for andre årsager [10]. De mest almindelige differentialdiagnoser til GTPS er artrose i hofteleddet og lumbale rygsmærter som begge kan give referred pain til ydersiden af hoften, hvorfor det er god klinisk praksis at supplere hofteundersøgelsen med en klinisk rygundersøgelse [15]. Hvis patienten klager over smerter ved at tage sko og strømper af og på, er diagnosen mere sandsynligt hofteartrose, da patienten med GTPS ikke vil have problemer med dette [10]. Andre differentialdiagnoser kan være smerter fra sakroiliacaleddet eller facetledssyndrom. Mindre sandsynlige differentialdiagnoser er referred pain fra ikke-muskuloskeletale lokalisationer, fx endometriose, prostatasygdom, inflammatorisk tarmsygdom, ovariecyster og inguinalhernier [13].

### Billeddiagnostik

Guldstandarden til radiologisk vurdering af hofteabduktionsenerne er MR-scanning [11], men også ultralydsscanning anvendes ofte, da denne er billigere og mere tilgængelig. Der er dog en vis usikkerhed forbundet med begge modaliteter. På samme måde som asymptomatiske individer kan have lumbale forandringer på MR-scanning af ryggen [16], er dette også tilfældet for GTPS hvor halvdelen af en gruppe uden smerter er vist at have tegn på tendinopati i hofteabduktorerne på MR-scanning [17]. Ultralydsscanning er vist at have en sensibilitet på 61% for senepatologi og 79% for bursapatologi sammenholdt med kirurgi [18]. Det skal hertil nævnes, at der i litteraturen er stor heterogenitet i definitionerne af forskellige fund, og der mangler således konsensus om, hvordan patologi skal defineres radiologisk, hvorfor det kan være svært at udtales sig om betydningen af fundene [7]. På baggrund af ovenstående betragtninger må billeddiagnostiske fund tolkes med en vis varsomhed og skal altid ses i en klinisk sammenhæng.

### Behandling

De tilgængelige behandlingsmuligheder for GTPS spænder vidt, herunder steroidblokader, shockwaveterapi, massage, træningsøvelser, wait-and-see og kirurgi [4,13,14]. Blokader er hyppigt brugt i behandlingen og har vist effekt, men det er efterhånden veldokumenteret at blokader udelukkende har en kortvarig effekt på smerter [19–21].

Trots den ændrede forståelse af patologien bag GTPS fra bursaproblematik til seneproblematik, er behandlingsevidensen og dermed -anbefalingerne ikke helt fulgt med.

Det er kendt fra andre tendinopatier, at en effektiv behandlingstilgang er hensigtsmæssig belastning af senerne og træning målrettet de specifikke muskler [22]. Kun få studier på højt evidensniveau har undersøgt dette for GTPS. Det seneste randomiserede kontrollerede studie fra Australien (LEAP-studiet) af 204 patienter med GTPS fandt, at en kombination af information og træning var bedre end steroidinjektion ved både 8 uger og 52 ugers follow-up [23]. Meget tyder dermed på at effektiv behandling skal findes i råd og vejledning til patienterne sammen med træning af de involverede sener. Træningen bør være fokuseret på at styrke muskulaturen og samtidig undgå udstrækning med hoftefleksion og -adduktion for at mindske kompression over gluteus medius og minimus [13].

### GTPS og idræt

Hos idrætsudøvere er GTPS en almindelig overbelastningsskade, oftest ved aktiviteter med højt excentrisk load i hofteabduktorerne som fx løb, hop og spring [8]. Grundstenen i behandlingen er kontrol af senebelastningen som beskrevet ovenfor. Det anbefales at undgå fuldstændig hvile eller for store ændringer i belastning [24]. Derfor er det relevant med mere skånsom træning, fx nedsat distance og intensitet ved løb, eller en alternativ træningsform i en periode [8]. Det kan desuden være relevant at undgå løb på skræt underlag eller på bane hvor der kan være større belastning på en adduceret hofte [15]. Grundet stigende alder i befolkningen og stadigt større deltagelse af kvinder i langdistanceløb, kan man forestille sig at man vil se en større andel af idrætsaktive med GTPS i fremtiden [8,25].

### Hvad så nu?

En stor del af litteraturen fokuserer på den ældre patientgruppe af kvinder med varierende aktivitetsniveau, og der findes i mindre grad studier som kigger isoleret set på idrætsudøvere. Det er muligt at der skal være tale om mere differentierede behandlingstilgange hos de to patientgrupper.

Yngre idrætsudøvere har oftere en åbenlyst aktivitet som årsag til overbelastning og søger den kliniske behandler akut, mens de ældre mindre aktive oftere har smerter på degenerativ

baggrund, som bliver kroniske med tiden. Man kan forestille sig at denne gruppe vil have større behov for information og råd om smertehåndtering. I et igangværende pilotstudie om patientinformation, som udføres af vores forskergruppe, efterspørger flere patienter viden og redskaber til, hvad de selv kan gøre for at afhjælpe deres smerter. Dette understreger yderligere behovet for at undersøge effekten af vejledning og råd til patienterne.

Under alle omstændigheder tyder meget på at der er begrænsede holdepunkter for blokade, som bør nøje overvejes, og behandling bør i højere grad fokusere sig på information og rådgivning om tilstanden samt rehabilitering med let træning af muskulaturen.

For idrætsudøveren betyder det begrænsning af den forværrende aktivitet og evt. alternativ træning i en periode.

Det er tydeligt i litteraturen at trochanterbursitten er næsten død til fordel for tendinopati med forekomst af kun få tilfælde, men der mangler fortsat klar evidens for flere aspekter af GTPS. Fremtidig forskning vil forhåbentligt give endnu mere viden om behandling og prognostiske faktorer samt de psykologiske aspekter der kan spille ind på smerterne.

### **FAKTABOKS: Kort og godt om GTPS**

**Forekommer** hos midaldrende kvinder (aktive og ikke aktive) og rammer også idrætsudøvere med en samlet incidens på 1,6-3,3/1000/år

**Årsagen** er tendinopati i hofteabduktorerne, og der er kun i sjælden grad en inflammatorisk komponent (trochanterbursit hos ned til 10 %)

**Kliniske fund** er smerter på ydersiden af hoften, reproduktion/forværring af smerter ved palpation af trochanter major, positiv FABER test og ingen smerter ved at tage sko og strømper på

**Behandling** bør fokusere på grundig information om tilstanden, aktiv hvile og træning af muskulaturen

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