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SCREENINGSPROCES

1. De hulpvraag van de patiënt
2. Algemene rode vlaggen: kanker, hoogenergetisch trauma, progressief neurologische uitval, infecties
3. Regio specifieke rode vlakken: fractuur?
4. Tractusanamnese: [2010.Goodman.J Handtherapy.Screening.pdf](#)_tractus digestivus, urogenitalis, circulatorius, centrale zenuwstelsel, locomotorius
5. Bewegingsgerelateerdheid: Er sprake van een duidelijke relatie tussen klacht en houden/bewegen.
6. Beloop: Er is sprake van een verklaarbaar afwijkend beloop.
7. Screenende testen:
 - a. [Ottawa Knee Rules](#)

DIAGNOSTISCH PROCES

De vorming van eerste hypothesen

1. [Er is sprake van patellofemoraal pijnsyndroom](#)
2. [Bij inspectie verwacht ik standsafwijking van de onderste extremititeit, in de vorm van valgusstand knie, pronatiestand van de voet](#)
3. [Er is sprake van een verminderde strekkracht van de knie](#)
4. [Er is sprake van een verminderde spierkracht van de heup exorotatoren en abductoren](#)
5. [Er is sprake van bron van nocisensoriek \(pijn\) bij compressie-mobilisatie van het patellofemorale gewricht](#)
6. [Er is sprake van een bewegingsbeperking van het patellofemorale gewricht](#)
7. [Er is sprake van een beperking in activiteiten van de knie](#)

PROGNOSTISCH PROCES

Verloopt via een stappenplan: “van prognose naar behandeling”.

1. Wat is het te verwachten beloop van dit gezondheidsprobleem (in het algemeen)?
2. Welke zijn de prognostische factoren bij dit gezondheidsprobleem (in het algemeen)?
3. Wat is het te verwachten beloop van het gezondheidsprobleem bij deze patiënt/cliënt, op grond van de geïdentificeerde factoren – prognostische factoren
4. Zijn de prognostische factoren bij deze patiënt/cliënt te beïnvloeden met fysiotherapeutische zorg?
5. Is fysiotherapeutische zorg bewezen effectief, doelmatig en veilig in het beïnvloeden van het beloop van het gezondheidsprobleem of in het wegnemen van de prognostische factor(en) (in het algemeen)?
6. Kan fysiotherapeutische zorg effectief, doelmatig en veilig worden toegepast bij deze patiënt/cliënt?
7. Is fysiotherapeutische zorg de beste optie voor deze patiënt/cliënt?

THERAPEUTISCH PROCES

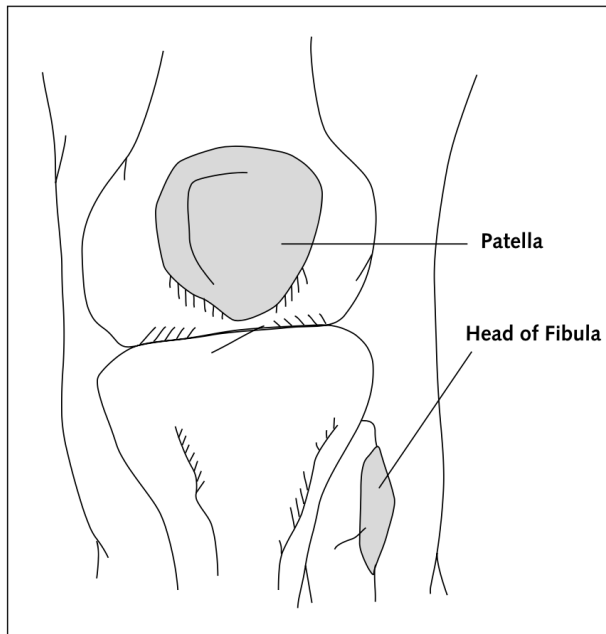
Het in gunstige zin beïnvloeden van het beloop van een gezondheidsprobleem, in relatie tot het bewegend functioneren.

1. Het opstellen van het behandelplan
2. Het uitvoeren van de behandeling
3. Het evalueren van het behandelresultaat
4. Het afsluiten van de behandeling



VERVOLG SCREENINGSPROCES

Figure 1. Description of the Ottawa knee rule for use of radiography in acute knee injuries.



Adapted from Stiell et al. (5). A knee radiograph series is required only for patients with knee injury who have any of these findings: 1) age 55 years or older; 2) isolated tenderness of patella (no bone tenderness of knee other than patella); 3) tenderness at head of fibula; 4) inability to flex 90 degrees; or 5) inability to bear weight both immediately and in the emergency department for 4 steps (unable to transfer weight twice onto each lower limb regardless of limping).

Stiell IG et al, Derivation of a Decision Rule for the Use of Radiography in Acute Knee Injuries; October 1995 28:4 Annals of emergency medicine

The derived decision rule included the following variables: (1) age 55 years or older, (2) tenderness at the head of the fibula, (3) isolated tenderness of the patella, (4) inability to flex to 90 degrees, and (5) inability to bear weight both immediately and in the ED (four steps).

The presence of one or more of these findings would have identified the 68 fractures in the study population with a sensitivity of 1.0 (95% CI .95 to 1.0) and a specificity of .54 (95% CI, .51 to .57). Application of the rule would have led to a 28.0% relative reduction in the use of radiography from 68.6% to 49.4% in the study population.



Figure 3.

Decision rule for radiography in acute knee injury.

A knee radiograph is required only for acute knee-injury patients with one or more of these findings related to age, tenderness, or function:

- Age 55 years or older
- Tenderness at head of fibula
- Isolated tenderness of patella
- Inability to flex to 90 degrees
- Inability to bear weight both immediately and in the ED (four steps)

Bachmann LM et al, The Accuracy of the Ottawa Knee Rule To Rule Out Knee Fractures, A Systematic Review, 20 January 2004 Annals of Internal Medicine Volume 140 • Number 2

Background: The Ottawa knee rule is a clinical decision aid that helps rule out fractures and avoid unnecessary radiography.

Data Synthesis: Of 11 identified studies, 6 involving 4249 adult patients were considered appropriate for pooled analysis. The pooled negative likelihood ratio was 0.05 (95% CI, 0.02 to 0.23), the pooled sensitivity was 98.5% (CI, 93.2% to 100%), and the pooled specificity was 48.6% (CI, 43.4% to 51.0%).

Conclusion: A negative result on an Ottawa knee rule test accurately excluded knee fractures after acute knee injury. However, because the rule is calibrated toward 100% sensitivity and actual fracture prevalences are usually low, large-scale, multicentered studies are still needed to establish the cost-effectiveness of routinely implementing the rule.



Top Health Groep

THG-RICHTLIJN Samenvatting casus Anterior Knee Pain



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VERVOLG DIAGNOSTISCH PROCES

CLINICAL PRACTICE GUIDELINES

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Patellofemoral Pain

Clinical Practice Guidelines Linked to the International Classification of Functioning, Disability and Health From the Academy of Orthopaedic Physical Therapy of the American Physical Therapy Association

J Orthop Sports Phys Ther. 2019;49(9):CPG1-CPG95. doi:10.2519/jospt.2019.0302

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I	Evidence obtained from high-quality diagnostic studies, prospective studies, randomized controlled trials, or systematic reviews
II	Evidence obtained from lesser-quality diagnostic studies, prospective studies, systematic reviews, or randomized controlled trials (eg, weaker diagnostic criteria and reference standards, improper randomization, no blinding, less than 80% follow-up)
III	Case-control studies or retrospective studies
IV	Case series
V	Expert opinion
GRADES OF RECOMMENDATION	
A	Strong evidence A preponderance of level I and/or level II studies support the recommendation. This must include at least 1 level I study
B	Moderate evidence A single high-quality randomized controlled trial or a preponderance of level II studies support the recommendation
C	Weak evidence A single level II study or a preponderance of level III and IV studies, including statements of consensus by content experts, support the recommendation
D	Conflicting evidence Higher-quality studies conducted on this topic disagree with respect to their conclusions. The recommendation is based on these conflicting studies
E	Theoretical/foundational evidence A preponderance of evidence from animal or cadaver studies, from conceptual models/principles, or from basic science/bench research supports this recommendation
F	Expert opinion Best practice based on the clinical experience of the guidelines development team supports this recommendation



PATELLOFEMORAL PAIN: CLINICAL PRACTICE GUIDELINES

Summary of Recommendations*

DIAGNOSIS

A Clinicians should use reproduction of retropatellar or peripatellar pain during squatting as a diagnostic test for patellofemoral pain (PFP). Clinicians should also use performance of other functional activities that load the patellofemoral joint (PFJ) in a flexed position, such as stair climbing or descent, as diagnostic tests for PFP.

B Clinicians should make the diagnosis of PFP using the following criteria: (1) the presence of retropatellar or peripatellar pain, (2) reproduction of retropatellar or peripatellar pain with squatting, stair climbing, prolonged sitting, or other functional activities loading the PFJ in a flexed position, and (3) exclusion of all other conditions that may cause anterior knee pain, including tibiofemoral pathologies.

C Clinicians may use the patellar tilt test with the presence of hypomobility to support the diagnosis of PFP.

CLASSIFICATION

P Given the absence of a previously established valid classification system for PFP, the clinical practice guideline group proposes a classification consisting of 4 subcategories associated with the International Classification of Functioning, Disability and Health. The proposed classification system is based on published evidence. The subcategories are named according to predominant impairments previously documented in people with PFP. Clinicians may consider using the proposed impairment/function-based PFP classification system to guide patient/client management.

PFP IMPAIRMENT/FUNCTION-BASED CLASSIFICATION SUBCATEGORIES

1. Overuse/overload without other impairment: a subcategory of individuals with PFP may have pain primarily due to overuse/overload. Classification into the overuse/overload without other impairment subcategory is made with a fair level of certainty when the patient presents with a history suggesting an increase in magnitude and/or frequency of PFJ loading at a rate that surpasses the ability of his or her PFJ tissues to recover.
2. Muscle performance deficits: a subcategory of individuals with PFP may respond favorably to hip and knee resistance exercises. Classification into the muscle performance deficits subcategory is made with a fair level of certainty when the patient presents with lower extremity muscle performance deficits in the hip and quadriceps.
3. Movement coordination deficits: a subcategory of individuals with PFP may respond favorably to gait retraining and move-

ment re-education interventions leading to improvements in lower extremity kinematics and pain, suggesting the importance of assessing dynamic knee valgus during movement. The diagnosis of PFP with movement coordination deficits is made with a fair level of certainty when the patient presents with excessive or poorly controlled knee valgus during a dynamic task, but not necessarily due to weakness of the lower extremity musculature.

4. Mobility impairments: a subcategory of individuals with PFP may have impairments related to either hypermobile or hypomobile structures. The diagnosis of PFP with mobility deficits is made with a fair level of certainty when the patient presents with higher than normal foot mobility and/or flexibility deficits of 1 or more of the following structures: hamstrings, quadriceps, gastrocnemius, soleus, lateral retinaculum, or iliotibial band.

EXAMINATION - OUTCOME MEASURES: ACTIVITY LIMITATIONS/SELF-REPORT MEASURES

A Clinicians should use the Anterior Knee Pain Scale (AKPS), the patellofemoral pain and osteoarthritis subscale of the Knee Injury and Osteoarthritis Outcome Score (KOOS-PF), or the visual analog scale (VAS) for activity or Eng and Pierrynowski Questionnaire (EPQ) to measure pain and function in patients with PFP. In addition, clinicians should use the VAS for worst pain, VAS for usual pain, or the numeric pain-rating scale (NPRS) to measure pain. Clinicians should use one of the translations and cross-cultural adaptations with demonstrated validity, reliability, and responsiveness to change for patients in different countries and for those requiring questionnaires in languages other than English.

EXAMINATION - ACTIVITY LIMITATIONS/ PHYSICAL PERFORMANCE MEASURES

B Clinicians should administer appropriate clinical or field tests that reproduce pain and assess lower-limb movement coordination, such as squatting, step-downs, and single-leg squats. These tests can assess a patient's baseline status relative to pain, function, and disability; global knee function; and changes in status throughout the course of treatment.

EXAMINATION - ACTIVITY LIMITATIONS/ PHYSICAL IMPAIRMENT MEASURES

C When evaluating a patient with PFP over an episode of care, clinicians may assess body structure and function, including measures of patellar provocation, patellar mobility, foot position, hip and thigh muscle strength, and muscle length.



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Samenvatting casus Anterior Knee Pain



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VERVOLG DIAGNOSTISCH PROCES

Lopen op de loopband en filmen met vertraagde opname mogelijkheid, van voor-, achter- en zijkant. Hardlopen observeren (evt. middels video-analyse; met markers) *Lengtegewelf van de voet: pes plano-valgus*: Navicular drop test (uitstekende inter- en intrabeoordelaarsbetrouwbaarheid (ICC > 0.88))

[Zuil-Escobar JC, Martínez-Cepa CB, Martín-Urrialde JA, Gómez-Conesa A. Medial Longitudinal Arch: Accuracy, reliability, and correlation between Navicular Drop Test and Footprint Parameters; JMPT 2018 Oct;41\(8\):672-679](#)



[Crossley KM et al, Performance on the Single-Leg Squat Task Indicates Hip Abductor Muscle Function The American Journal of Sports Medicine, Vol. 39, No. 4](#)

Conclusion: Targeted treatments, although considered ideal, rely on the capacity to identify subgroups of people with chronic anterior knee pain who might respond optimally to a given treatment component. Clinical assessment of performance on the single-leg squat task is a reliable tool that may be used to identify people with hip muscle dysfunction.

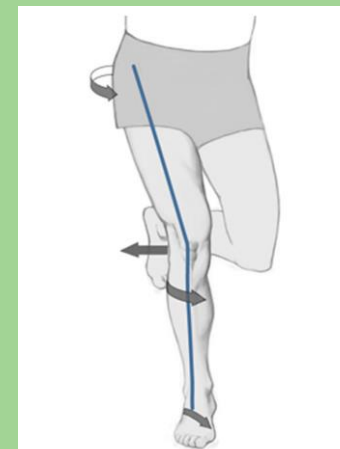


Fig. 2 Cause for functional or dynamic valgus can be internal rotation of the femur, the tibia or both. Internal rotation of the femur might be the result of weakness of the hip abductors; internal rotation of the tibia might arise from rear-foot eversion or pes pronatus. Functional valgus may lead to lateral patella maltracking

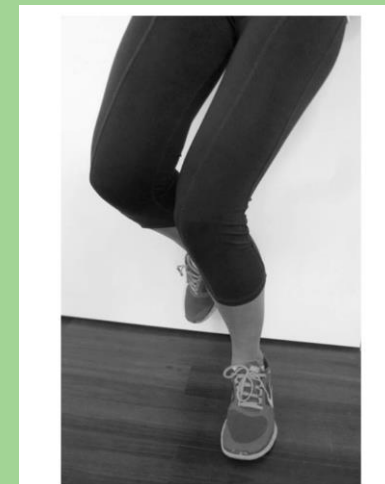


Fig. 3 Dynamic valgus can be visualized by one-legged squats. Young female athlete with dynamic valgus and PFPS



VERVOLG DIAGNOSTISCH PROCES



Cook C, Hegedus E, Hawkins R, Scovell F, Wyland D. Diagnostic accuracy and association to disability of clinical test findings associated with patellofemoral pain syndrome. Physiother Can. 2010;62:17–24.

Results: Diagnostic accuracy analyses of individual functional assessment and situational phenomena suggest that the strongest diagnostic test is pain encountered during resisted muscle contraction of the knee (PPV 1/4 82%; LRp 1/4 2.2; 95% CI: 0.99–5.2). Clusters of test findings were substantially more diagnostic, with any two of three positive findings of muscle contraction, pain during squatting, and pain during palpation yielding the following values: PPV 1/4 89%; LRp 1/4 4.0 (95% CI: 1.8–10.3). No individual or clustered test findings were significantly associated with the IKDC score.

Conclusion: Combinations of functional assessment tests and situational phenomena are diagnostic for PFPS and may serve to rule in and rule out the presence of PFPS. Single findings are not related to disability scores (IKDC).



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Samenvatting casus Anterior Knee Pain



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VERVOLG DIAGNOSTISCH PROCES

**ITBS?
PFPS?
Jumper's
Knee?**

Clinical Reasoning

Flato R et al, The iliotibial tract: imaging, anatomy, injuries, and other pathology *Skeletal Radiol* (2017) 46:605–622

Abstract The iliotibial tract, also known as Maissiat's band or the iliotibial band, and its associated muscles function to extend, abduct, and laterally rotate the hip, as well as aid in the stabilization of the knee. A select group of associated injuries and pathologies of the iliotibial tract are seen as sequela of repetitive stress and direct trauma. This article intends to educate the radiologist, orthopedist, and other clinicians about iliotibial tract anatomy and function and the clinical presentation, pathophysiology, and imaging findings of associated pathologies. Specifically, this article will review proximal iliotibial band syndrome, Morel-Lavallée lesions, external snapping hip syndrome, iliotibial band syndrome and bursitis, traumatic tears, iliotibial insertional tendinosis and peritendonitis, avulsion fractures at Gerdy's tubercle, and Segond fractures. The clinical management of these pathologies will also be discussed in brief.

Patellar Apprehension Test

Assessment

Moving Patellar Apprehension Test

Assessment

Clarke's Sign

Assessment

Decline Step-down Test

Assessment



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Samenvatting casus Anterior Knee Pain



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VERVOLG DIAGNOSTISCH PROCES

Knee Injury and Osteoarthritis Outcome Score (KOOS), Dutch version LK 1.0

KOOS
Vragenformulier voor kniepatiënten

Naam: _____ Geboortedatum: ____/____/____

Instructies: Deze vragenlijst vraagt naar uw mening over uw knie. Deze informatie helpt ons na te gaan hoe u zich voelt over uw knie en hoe goed u in staat bent om uw normale dagelijkse activiteiten uit te voeren. Beantwoord elke vraag door één hokje aan te kruisen. Wanneer u twijfelt over de beantwoording van een vraag, kruis dan de best mogelijke optie aan.

Symptomen
Dient u bij het beantwoorden van deze vragen aan symptomen en problemen van uw knie gedurende de afgelopen week.

S1. Was uw knie gezwollen?
nooit zelden soms vaak voortdurend

S2. Heeft u een knarsend gevoel in uw knie, klikkende of andere geluiden uit uw knie gehoord?
nooit zelden soms vaak voortdurend

S3. Gebeurde het dat uw knie even vast bleef steken of helemaal op slot zat?
nooit zelden soms vaak voortdurend

S4. Kon u uw knie helemaal strekken?
voortdurend vaak soms zelden nooit

S5. Kon u uw knie helemaal buigen?
voortdurend vaak soms zelden nooit

Stijfheid
Onderstaande vragen betreffen de gewrichtsstijfheid die u heeft ervaren in de knie gedurende de afgelopen week. Met stijfheid bedoelen we het gevoel dat uw gewricht minder soepel beweegt.

S6. Hoe ernstig was de gewrichtsstijfheid van de knie 's morgens direct na het wakker worden?
geen gering matig veel erg veel

Knee Injury and Osteoarthritis Outcome Score (KOOS), Dutch version LK 1.0

S7. Hoe ernstig was de gewrichtsstijfheid van de knie later op de dag, na zitten liggen of rusten
geen gering matig veel erg veel

Pijn
P1. Hoe vaak heeft u pijn aan uw knie?
nooit elke maand elke week elke dag altijd

Welke mate van kniepijn heeft u de afgelopen week ervaren tijdens de volgende activiteiten?

P2. Draaien op een belaste knie
geen gering matig veel erg veel

P3. De knie helemaal strekken
geen gering matig veel erg veel

P4. De knie helemaal buigen
geen gering matig veel erg veel

P5. Lopen op een vlakke ondergrond
geen gering matig veel erg veel

P6. Trap oplopen of aflopen
geen gering matig veel erg veel

P7. 's Nachts in bed
geen gering matig veel erg veel

P8. Zitten of liggen
geen gering matig veel erg veel

P9. Rechtop staan
geen gering matig veel erg veel

Functioneren in het dagelijks leven
Onderstaande vragen betreffen uw dagelijks functioneren. Wil u voor elk van de onderstaande activiteiten aangeven hoeveel moeite u de afgelopen week heeft ervaren tijdens deze activiteiten vanwege uw knie.

A1. Trap aflopen
geen gering matig veel erg veel

Knee Injury and Osteoarthritis Outcome Score (KOOS), Dutch version LK 1.0

A2. Trap oplopen
geen gering matig veel erg veel

A3. Opstaan vanuit een stoel
geen gering matig veel erg veel

A4. Staan
geen gering matig veel erg veel

A5. Bukken naar de grond/ iets oppakken van de grond
geen gering matig veel erg veel

A6. Lopen op een vlakke ondergrond
geen gering matig veel erg veel

A7. Instappen / uitsappen uit een auto
geen gering matig veel erg veel

A8. Winkelen
geen gering matig veel erg veel

A9. Sokken / kousen aantrekken
geen gering matig veel erg veel

A10. Opstaan vanuit bed
geen gering matig veel erg veel

A11. Sokken / kousen uittrekken
geen gering matig veel erg veel

A12. In bed liggen
geen gering matig veel erg veel

A13. In / uit bad gaan
geen gering matig veel erg veel

A14. Zitten
geen gering matig veel erg veel

A15. Gaan zitten / opstaan van het toilet
geen gering matig veel erg veel

Knee Injury and Osteoarthritis Outcome Score (KOOS), Dutch version LK 1.0

A16. Zware huishoudelijke activiteiten (zware dozen tillen, de vloer schrobben etc.)
geen gering matig veel erg veel

A17. Lichte huishoudelijke werkzaamheden (koken, stoffen etc.)
geen gering matig veel erg veel

Functioneren in vrije tijd en sport
De volgende vragen gaan over uw lichamelijke functioneren tijdens recreatieve/ sportieve activiteiten. Geef aan hoeveel moeite u heeft ervaren op grond van uw knieklachten in de afgelopen week bij de volgende activiteiten

Sp1. Op uw hurken zitten
geen gering matig veel erg veel

Sp2. Hardlopen
geen gering matig veel erg veel

Sp3. Springen
geen gering matig veel erg veel

Sp4. Draaien op een belaste knie
geen gering matig veel erg veel

Sp5. Knieën
geen gering matig veel erg veel

Kwaliteit van leven

Q1. Hoe vaak wordt u aan uw knie herinnerd?
nooit elke maand elke week elke dag altijd

Q2. Heeft u uw manier van leven veranderd om uw knie te ontzien?
totaal niet iets matig grotendeels totaal

Q3. In welke mate kunt u op uw knie vertrouwen?
totaal grotendeels matig iets totaal niet

Q4. Hoe groot zijn uw problemen met de knie in het algemeen?
geen gering matig groot zeer groot

[Collins NJ et al, Knee Injury and Osteoarthritis Outcome Score \(KOOS\): systematic review and meta-analysis of measurement properties; Osteoarthritis and Cartilage 24 \(2016\) 1317e1329](#)

Conclusions: KOOS demonstrates adequate content validity, internal consistency, test-retest reliability, construct validity and responsiveness for age- and condition-relevant subscales. Structural validity, cross-cultural validity and measurement error require further evaluation, as well as construct validity of KOOS Physical function Short form. Suggested order of subscales for different knee conditions can be applied in hierarchical testing of endpoints in clinical trials.



VERVOLG DIAGNOSTISCH PROCES

Fysiotherapeutische Diagnose

Vrouw van 55 jaar met een patellofemorale kniepijn rechts. Zij heeft zeurende pijn die bijna continu aanwezig is; soms bestaat het gevoel alsof de knie op slot zit, en soms is er een moment van "giving way". De pijn bevindt zich aan de ventrale zijde van de knie. Het buigen van de knie is beperkt in het eind van de beweging en provoceert de pijn. De mobiliteit van het patellofemorale gewricht in caudaal translatie is eveneens beperkt. Er is sprake van een verminderde spierkracht van de extensie van de knie en van het exoroteren en abduceren van de rechter heup. (MRC 4-5 van 5)

Vooraf zitten (7/10), hurken (5/10), en hardlopen (3/10) provoceren de herkenbare pijn. Bewegen en innemen van een andere positie reduceren de pijn.

Hardlopen is niet goed mogelijk. Er is consistentie tussen de vastgestelde stoornissen en de beperkingen in activiteiten en participatie. De hulpvraag, c.q. het gestelde doel om weer te kunnen zitten en om weer te kunnen hardlopen is realistisch.



VERVOLG PROGNOSTISCH PROCES

Wat zijn prognostische factoren bij deze patiënt?

[Kastelein M et al, The 6-year trajectory of non-traumatic knee symptoms \(including patellofemoral pain\) in adolescents and young adults in general practice: a study of clinical predictors; Br J Sports Med 2015;49:400–405](#)

Results: Patients receiving a GP diagnosis of patellofemoral pain syndrome had the worse prognosis, with 40% reporting persistent knee symptoms at 6-year follow-up. For patients receiving a GP diagnosis of patellofemoral pain syndrome, prognostic factors were low/middle education level, poor health, having bilateral symptoms and self-report of a swollen knee (AUC 0.76).

Onze patiënt is 55 jaar en wijkt daarmee af van de studiepopulatie. Zij heeft slechts 3 maanden klachten en in het verleden was geen sprake van soortgelijke klachten. Er is een duidelijk ontstaansmoment als gevolg van hardlopen; zijn heeft klachten van de rechterknie en niet beiderzijds, en klaagt niet over een gezwollen knie. Onze patiënt past niet in het beschreven natuurlijk beloop, er zijn duidelijk fysieke stoornissen; het beloop lijkt gunstig te beïnvloeden.

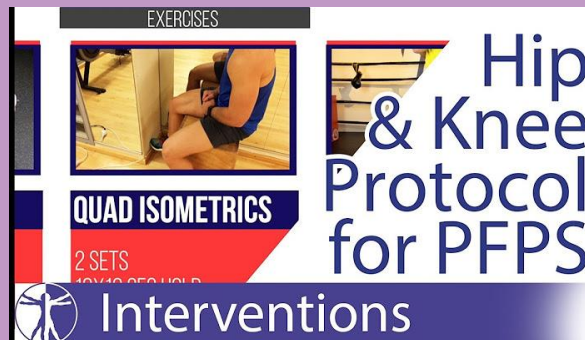
[Lankhorst NE et al, Factors that predict a poor outcome 5–8 years after the diagnosis of patellofemoral pain: a multicentre observational analysis; Br J Sports Med 2016;50:881–886](#)

***Results** 60 (19.3%) participants completed the questionnaires at 5–8-year follow-up (45 women, mean age at baseline 26 years) and 50 underwent knee radiographs. No differences were observed between responders and non-responders regarding baseline demographics, and 3-month and 12-month pain severity and recovery. 34 (57%) reported unfavorable recovery at 5–8 years. 48 out of 50 participants (98%) had no signs of radiographic knee OA. Multivariate models revealed that baseline PFP duration (>12 months; $R = 0.22$) and lower AKPS ($R = 0.196$) were significant predictors of poor prognosis at 5–8 years on measures of worst pain VAS and AKPS, respectively.*

***Summary and conclusion** More than half of participants with PFP reported an unfavorable recovery 5–8 years after recruitment, but did not have radiographic knee OA. Longer PFP duration and worse AKPS score at baseline predict poor PFP prognosis. Education of health practitioners and the general public will provide patients with more realistic expectations regarding prognosis.*



VERVOLG THERAPEUTISCH PROCES



Willy 2019 - APTA INTERVENTIONS – PATELLAR TAPING

B Clinicians may use tailored patellar taping in combination with exercise therapy to assist in immediate pain reduction, and to enhance outcomes of exercise therapy in the short term (4 weeks). Importantly, taping techniques may not be beneficial in the longer term or when added to more intensive physical therapy. Taping applied with the aim of enhancing muscle function is not recommended.



WILLY 2019 - APTA INTERVENTIONS – PATELLOFEMORAL KNEE ORTHOSES (BRACING)

F Clinicians should not prescribe patellofemoral knee orthoses, including braces, sleeves, or straps, for patients with PFP.



Fig. 7 a, b Application of a classical Mc Connel tape, c Example of a patella brace (Patella pro) which can apply a medially directed force to the patella



Top Health Groen

THG-RICHTLIJN Samenvatting casus Anterior Knee Pain



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VERVOLG THERAPEUTISCH PROCES

CLINICAL PRACTICE GUIDELINES

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Patellofemoral Pain

Clinical Practice Guidelines Linked to the International Classification of Functioning, Disability and Health From the Academy of Orthopaedic Physical Therapy of the American Physical Therapy Association

J Orthop Sports Phys Ther. 2019;49(9):CPG1-CPG95. doi:10.2519/jospt.2019.0302

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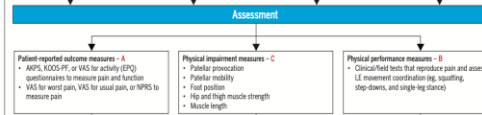
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JOSPT PERSPECTIVES FOR PRACTICE

Patellofemoral Pain Care Process Model

Diagnosis/Classification of Patellofemoral Pain: Evaluation of Clinical Findings

- Diagnostic criteria - D**
1. Presence of retrofemoral or peripatellar pain, AND
 2. Reproduction of retrofemoral or peripatellar pain with squatting, stair climbing, prolonged sitting, or other functional activities loading the patellofemoral joint (PFJ) in a flexed position, AND
 3. Exclusion of all other conditions that may cause anterior knee pain
- Diagnostic tests**
- Reproduction of pain with squatting and other functional activities that load the PFJ in a flexed position (eg, stair climbing or descent) - **A**
 - Patellar tilt test with presence of hypomobility - **C**



Intervention Strategies

- Specific modes of exercise therapy - **A****
- Combined hip- and knee-targeted exercises to reduce pain and improve patient-reported outcomes and functional performance in the short-, medium-, and long term
 - Hip exercise should target posterolateral hip musculature. Preference in early treatment
 - Knee-targeted exercise includes either weight-bearing or non-weight-bearing
- Foot orthoses: prefabricated foot orthoses for greater-than-normal foot pronation to reduce pain in the short term (6 weeks), in combination with exercise therapy - **A****
- Combined interventions: clinicians may combine exercise therapy with other interventions (eg, foot orthoses, patellar taping, patellar mobilizations, and LE stretching) - **A****
- Patellar taping: with exercise therapy for pain reduction and enhanced exercise therapy outcomes in the short term (6 weeks) - **B****
- Running gait retraining: cueing for foot/foot strike, increase in running cadence, or reduction in peak hip adduction - **C****
- Acupuncture: may use to reduce pain - **C****
- Patient education: may include load management, body-weight management, adherence to active treatments, biomechanics contributing to overload, evidence for treatment options, and kinesiotherapy. May improve compliance and adherence - **F****
- Blood flow restriction training plus high-repetition knee-targeted exercise therapy: may use while monitoring for adverse events for those with painful resisted knee extension - **F****
- Not recommended**
- Dry needling - **A**
 - Manual therapy, including patellar or spinal mobilization, in isolation - **A**
 - Patellar taping with the aim of enhancing muscle function - **B**
 - Patellofemoral knee orthoses (bracing) - **B**
 - Sitelback for quadriceps exercise - **B**
 - Sitelback for LE alignment during hip- and knee-targeted exercises - **B**
 - Biophysical agents, including ultrasound, cryotherapy, phonophoresis, iontophoresis, electrical stimulation, and therapeutic laser - **B**

Based on the guidelines, the grades in this flow chart may be translated as follows: A, strong evidence; B, moderate evidence; C, weak evidence; D, conflicting evidence; E, expert opinion. Figure produced for JOSPT by Kate Minick, PT, DPT, OCS, of InterimHealthcare, Salt Lake City, UT.

JOSPT PERSPECTIVES FOR PATIENTS

Patellofemoral Pain Treating Painful Kneecaps

J Orthop Sports Phys Ther 2019;49(9):633. doi:10.2519/jospt.2019.0504



EASING KNEECAP PAIN. Knee pain that is in the front of your knee or under your kneecap is often called patellofemoral pain. Strengthening exercises that focus on your hip and thigh muscles, such as squats, are more likely to get you back to feeling like yourself (A). Your physical therapist may also apply tape to your kneecap early in your treatment to help reduce pain and improve function (B). Shoe inserts that you can buy in a store might help to manage kneecap pain in the early weeks of your treatment (C).

This JOSPT Perspectives for Patients is based on clinical practice guidelines by Willy et al titled "Patellofemoral Pain" (J Orthop Sports Phys Ther. 2019;49(9):CPG1-CPG95. <https://doi.org/10.2519/jospt.2019.0302>).




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VERVOLG THERAPEUTISCH PROCES



Vereniging voor Sportgeneeskunde

MONO-DISCIPLINAIRE RICHTLIJN

Patellofemorale pijnsyndroom

