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RAPID RESEARCH

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Inside This Week: Patellofemoral Knee Pain

-
- ✓ Hip v. Knee Exercise Protocol for Patellofemoral Pain

 - ✓ How Common is Patellofemoral Knee Pain?

 - ✓ Taping, Bracing & Injection Treatment Options for PFP

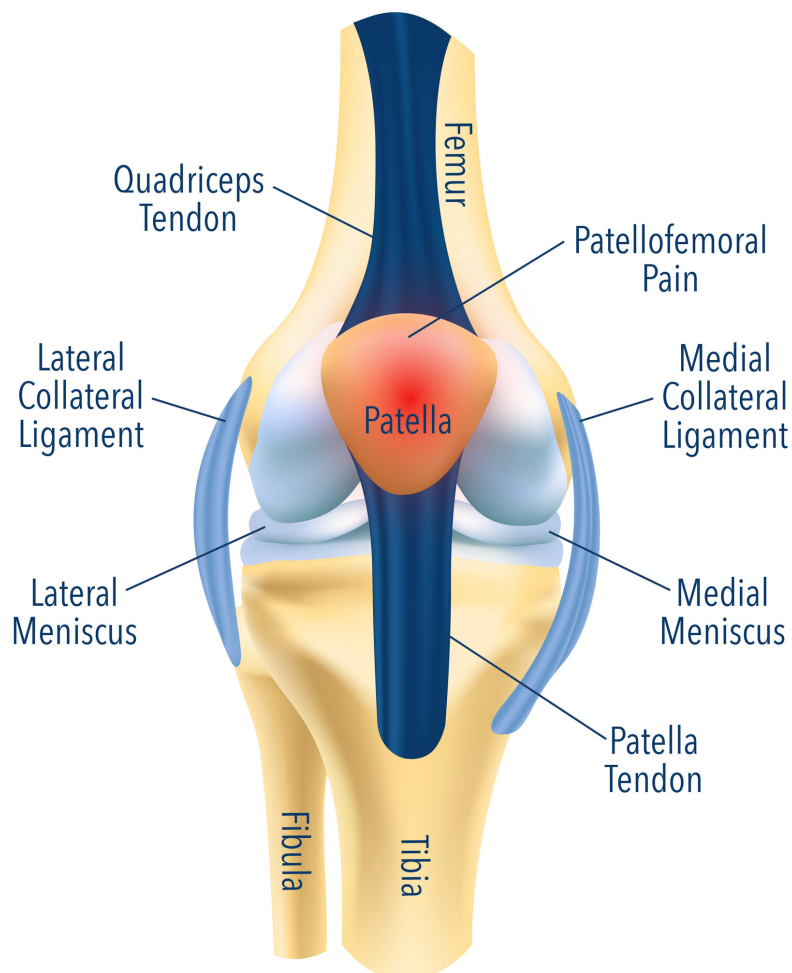


HIP V. KNEE EXERCISE PROTOCOL FOR PATELLOFEMORAL PAIN

[Click for Full Text
\(Ferber et al 2015\)](#)

This RCT study compared pain, function, hip- and knee-muscle strength, and core endurance for patients with PFP assigned to either a hip- and core-focused (HIP) or a knee-focused (KNEE) 6-week rehabilitation protocol.

Patellofemoral Pain Syndrome



KEY FINDINGS

199 people with PFP included;

Randomly assigned to a **6wk KNEE or HIP protocol.**

Outcome Measure(s):

Self-reported Pain (weekly)

Hip/Knee Muscle strength

Core endurance

Compared with baseline measurements:

Both HIP and KNEE groups **significantly improved pain levels.**

Pain in **HIP group was on average reduced 1 week earlier vs. KNEE.**

Both HIP and KNEE groups **significantly increased in strength.**

HIP protocol gained more in hip-abductor and -extensor strength and posterior core endurance compared with the KNEE group

MAIN TAKEAWAYS

This is the first RCT study **directly comparing HIP and KNEE protocols for patients with PFP.**

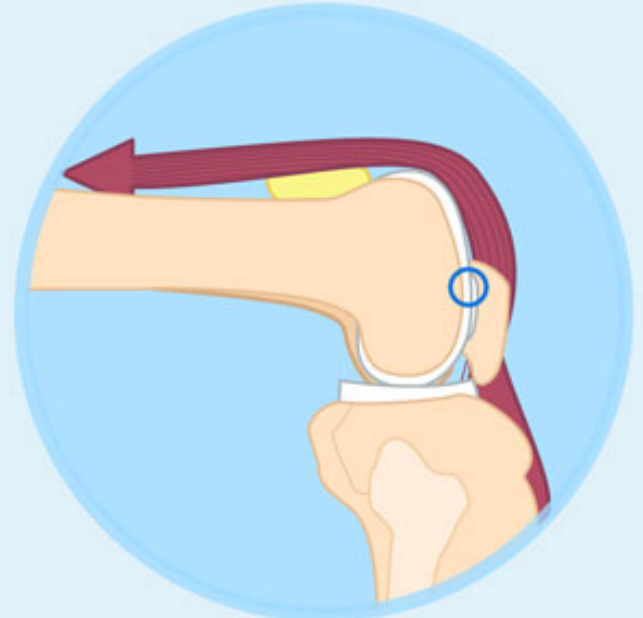
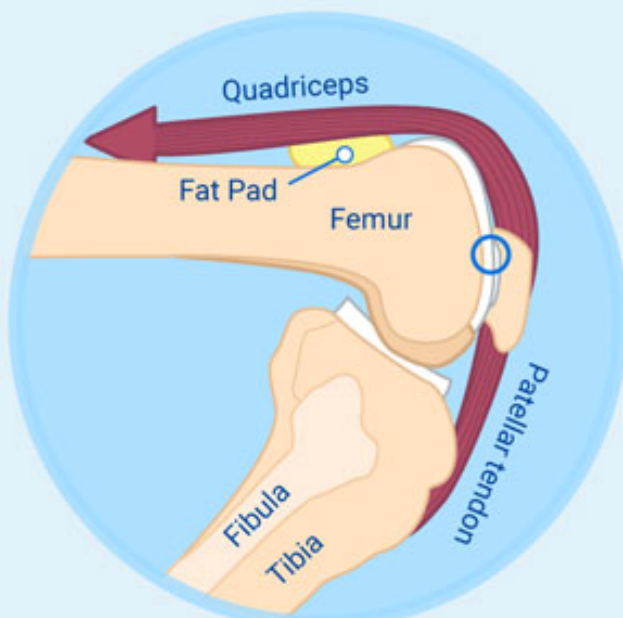
Both 6- week HIP and KNEE rehabilitation protocols resulted in significant improvements in pain, function, and muscle strength in patients with PFP.

The hip and core-focused rehabilitation protocol provided earlier resolution of PFP and greater overall gains in muscle strength and core endurance than did a knee-focused protocol.

HOW COMMON IS PATELLOFEMORAL KNEE PAIN?

[Click for Full Text \(Smith et al. 2018\)](#)

This systematic review synthesizes epidemiological data to gain an understanding of incidence and prevalence of patellofemoral knee pain.



KEY FINDINGS

23 studies were included.

Annual prevalence for patellofemoral pain:

General population was reported as 22.7%

Adolescents was found to be 28.9%

Incidence rates for patellofemoral pain (Per 1000 person/year):

Military recruits ranged from 9.7 – 571 cases

Amateur runners in the general population at 1080 cases

Adolescents amateur athletes 5.1%–14.9% over 1 season.

Point prevalence:

Military populations was 13.5% (1 study).

Adolescents was 7.2% (pooled)

Female only adolescent athletes was 22.7% (pooled)

MAIN TAKEAWAYS

PFP is a common condition:

~1 in 10 military recruits & 1 in 14 adolescents **suffering at any one time.**

And ~1 in 5 of the general population experiencing **pain within the last year.**

Some consistency with data shows **females are 2x as likely to experience PFP as males.**

PFP has high incidence and prevalence numbers & poor long term prognosis and high disability levels.

High risk groups include, adolescents and adults increasing physical activity levels.

TAPING, BRACING & INJECTION TREATMENT OPTIONS FOR PFP

[Click for Full Text
\(Sisk & Frederickson
2020\)](#)

This study investigated the effectiveness of additional treatment options for patellofemoral pain syndrome, and patellar tendinopathy when conservative care fails.



Taping:

- Small number of high quality studies available.
- No strong evidence taping is effective for patellar tendinopathy.
- Can alter patellar position & has been shown to improve PFP pain levels.

Bracing:

- Good short-term treatment for pain, but minimal significant long-term effects.
- Useful adjunctive therapy as they are low cost & safe.

Injections:

- Lack of long-term effects coupled with risk of weakening tendon structure, steroid injections for patellar tendinopathy are not recommended.
- Platelet Rich Plasma injections have shown promise for patellar tendinopathy.
- Other injections such as hyaluronic acid, sclerosing agents, and aprotinin have limited evidence & cannot be recommended

MAIN TAKEAWAYS

Exercise therapy with adjunctive treatment is the **preferred management of PFP.**

Evidence **supports bracing and taping** for short-term benefits.

Injection treatment for patellar tendinopathy shows promise if non-interventional treatment fails.

However **further studies are needed** to evaluate the efficacy of PRP, stem cells, and other experimental injections.

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We would greatly appreciate any feedback you have, as it helps us continually improve!

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