



@physicaltherapyresearch

RAPID RESEARCH

August 2021

Inside This Week: Physical Therapy Interventions

-
- ✓ Physical Therapy Treatments for Delayed Onset Muscle Soreness (DOMS)

 - ✓ How Effective is an Exercise Plan to Fix PatelloFemoral Pain (PFP)

 - ✓ Physical Therapy for Temporomandibular Disorder



PHYSICAL THERAPY TREATMENTS FOR DELAYED ONSET MUSCLE SORENESS (DOMS)

[Click for Full Text
\(Nahon et al. 2021\)](#)

This systematic review evaluated the impact of interventions on pain associated with DOMS.

WHAT IS DELAYED ONSET MUSCLE SORENESS? (DOMS)

Ever feel achy a couple of days after a physically demanding workout?

DAY 1



THE WORKOUT

You have intense physical activity.

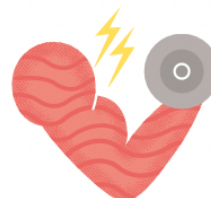
DAY 2



THE CALM

You feel tired, but strangely okay.

DAY 3



THE PAIN

BAM! You feel incredibly achy and sore. That's DOMS!

KEY FINDINGS

121 studies included; **3 Categories of Interventions;**

Physical Methods:

Magnetic therapy, Contrast, Vibration, Cryotherapy, TENS, Microcurrents Ultrasound, Short wave diathermy, Phototherapy, Thermootherapy

Mechanical Methods:

Foam roller, Compression, Massage, Stretching, Active exercise

Other Methods:

Kinesiotaping & Acupuncture

Contrast techniques, cryotherapy, phototherapy, vibration, ultrasound, massage, active exercise, and compression have a **better positive effect than the control in the management of DOMS.**

MAIN TAKEAWAYS

Some Physical Therapy interventions are **more effective than no intervention for DOMS treatment.**

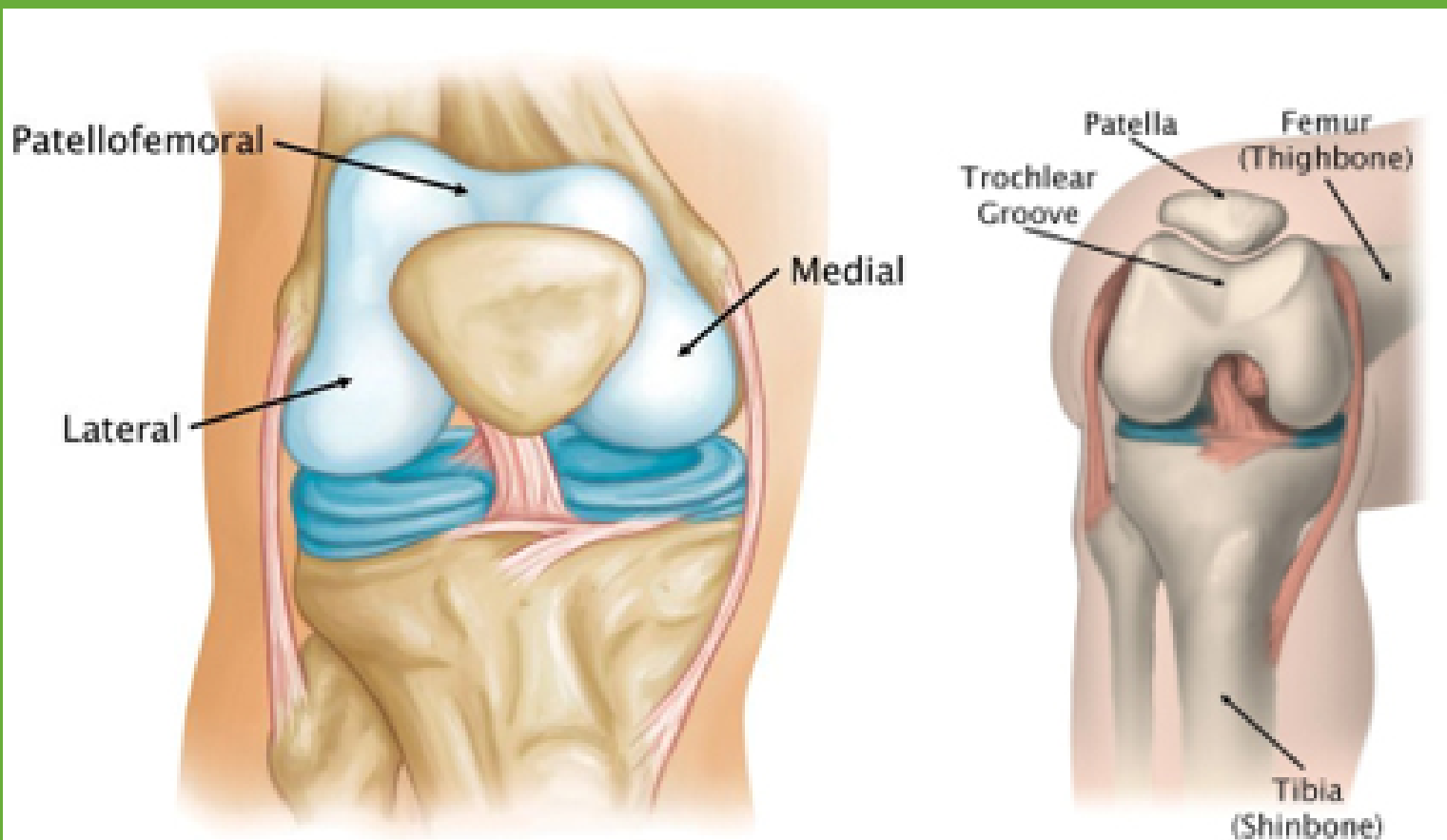
However, the low quality of the included studies should be considered.

In addition, several modalities were found to be **potentially beneficial and that clinicians can make choices based on their individual circumstances.**

HOW EFFECTIVE IS AN EXERCISE PLAN TO FIX PATELLOFEMORAL PAIN (PFP)

[Click for Full Text](#)
(Greaves et al. 2021)

This study tested a 6-week exercise program based on the published recommendations, and investigated the effectiveness for individuals with PFP.



KEY FINDINGS

16/27 participants successfully completed the program

Pain did not improve significantly on the NPRS (p \approx 0.074) but did on the KOOS pain scale.

Function scores improved significantly (KOOS and KUJALA).

Fear of movement scores improved significantly.

Running speed, peak joint angles and moments of hip and knee during the stance phase **did not significantly change**.

Concentric **Quad strength increased** with moderate effect size.

MAIN TAKEAWAYS

The participants with PFP demonstrated a significantly improved function, reduced quadriceps inhibition, and improved pain level.

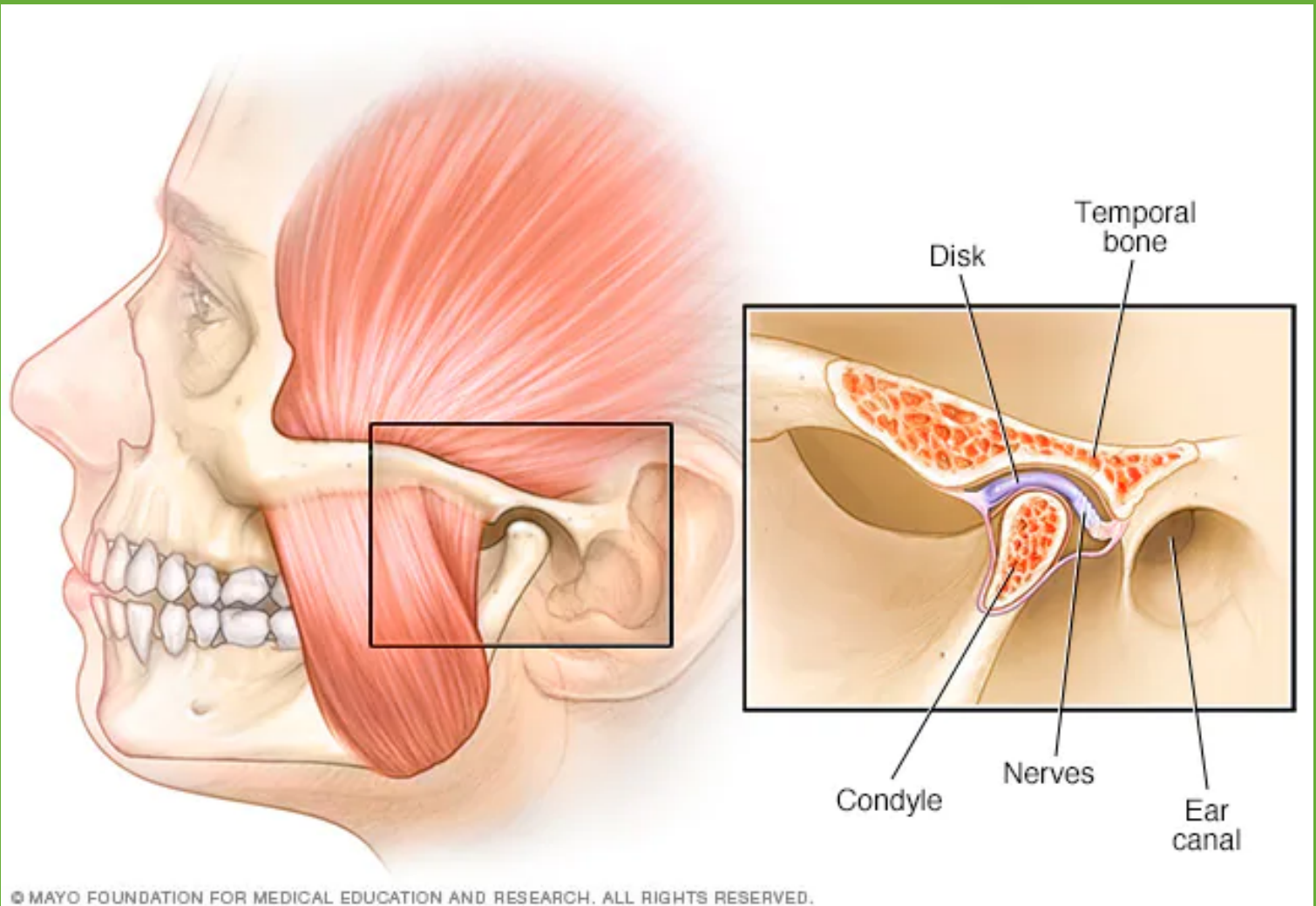
Reduced quadriceps inhibition might be a key factor in individuals with PFP.

Strength training with higher loads and reduced repetitions would better enhance quadriceps strength.

PHYSICAL THERAPY EFFICACY FOR TEMPOROMANDIBULAR DISORDER

[Click for Full Text
\(Fisch et al. 2021\)](#)

This research determined if PT interventions are effective in improving temporomandibular disorder (TMD).



100 participants were included.

For both males and females, the **discharge scores were all improved.**

Max Mouth Opening score before and after physical therapy improved by 5.64 mm.

Temporomandibular index before and after physical therapy decreased by 12.27 points.

Pain scores before and after physical therapy decreased by 3.24 points.

MAIN TAKEAWAYS

Physical therapy intervention in patients with TMJ dysfunction demonstrated significantly improved short term outcomes which included pain, TDI, and MMO.

In terms of clinical practice, this study further supports a trial of conservative treatment prior to further medical care such as surgical intervention in the treatment of TMJ disorder.

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