RAPID RESEARCH

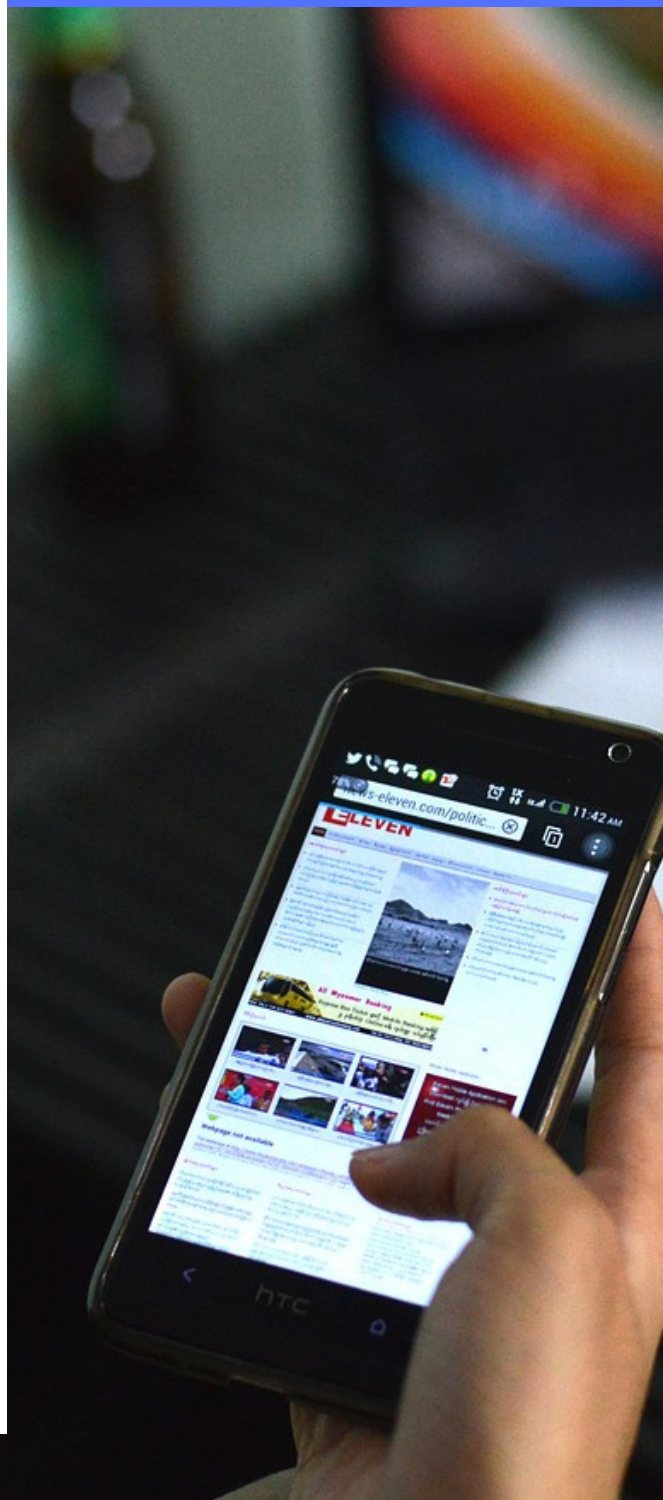
@physicaltherapyresearch

December 2021

Inside This Week:

Rotator Cuff Treatments

- PT Treatment for Rotator Cuff Disorders
- Manual Therapy & Exercise for Rotator Cuff Disease
- Electrotherapy Treatments for Rotator Cuff Disease



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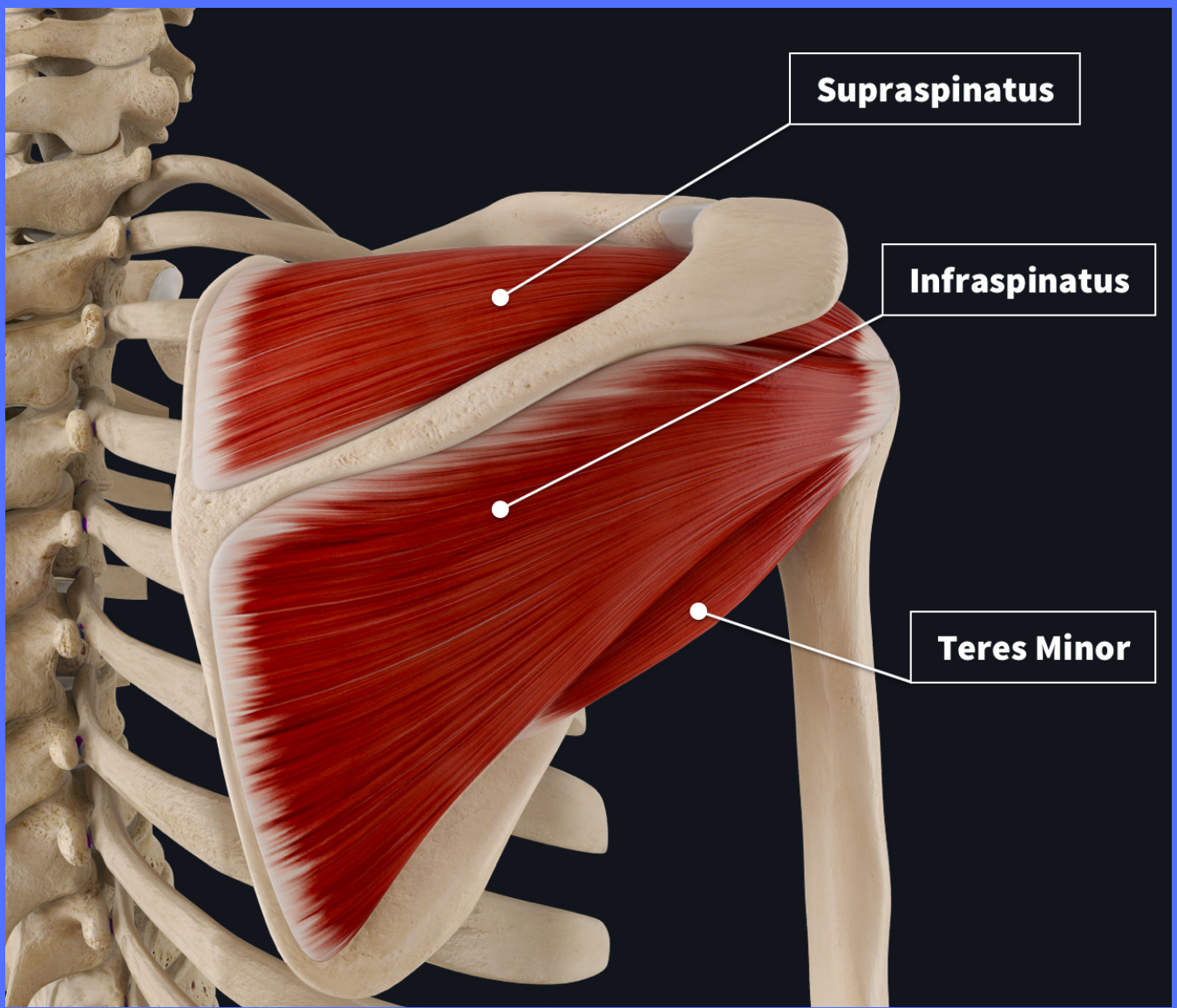
PT TREATMENT FOR ROTATOR CUFF DISORDERS

Click for Full Text (Hopewell et al 2021)

This large trial investigated clinical and cost-effectiveness of a PT-led progressive exercise program for treating people with rotator cuff disorders.



KEY FINDINGS

2287 patients; **708 patients were randomly assigned to:**
Progressive exercise (n=174).
Best practice advice (n=174).
Corticosteroid injection then progressive exercise (n=182).
Corticosteroid injection then best practice advice (n=178).

We found **no evidence of a difference** in SPADI score between progressive exercise and best practice advice when analyzed over 12 months.

We also found **no evidence of a difference** between corticosteroid injection compared with no injection when analyzed over 12 months.

No serious adverse events were reported.

MAIN TAKEAWAYS

The GRASP trial showed that progressive exercise was not superior to a best practice advice session with a physiotherapist.

Sub-acromial corticosteroid injection improved shoulder pain and function and provided modest short-term benefit.

Best practice advice in combination with corticosteroid injection is expected to be the most cost-effective treatment combination for use of NHS resources, although this conclusion is uncertain.

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MANUAL THERAPY & EXERCISE FOR ROTATOR CUFF DISEASE

Click for Full Text (Page et al. 2016

This systematic review synthesized available evidence regarding the benefits and harms of manual therapy and exercise, alone or in combination, for the treatment of people with rotator cuff disease..

KEY FINDINGS

60 trials (3620 participants):
Manual therapy (MT) and Exercise (Ex) vs. placebo in 120 people, 22 weeks
Mean Change in Overall Pain:
Placebo **(17.3 points/100)** vs. MT + Ex (**24.8 points/100)**
Mean Change in Function:
Placebo **(15.6 points/100)** vs. MT + Ex **(22.4 points/100)**
Reported Treatment Success:
Placebo **(41%)** vs. MT + Ex **(57%)**

5 low quality trials found **no differences between MT+Ex compared with glucocorticoid injection** for overall pain, function, active shoulder abduction and quality of life from 1 to 12 months.

Manual therapy or exercise provided few or no additional benefits when combined with other physical therapy interventions, and one type of manual therapy or exercise was rarely more effective than another.

MAIN TAKEAWAYS

Of 60 eligible trials, only 1 compared a combination of manual therapy and exercise reflective of common current practice to placebo.

It was **high quality and found no clinically important differences between groups in any outcome.**

Effects of manual therapy and exercise may be similar to those of glucocorticoid injection and arthroscopic subacromial decompression, but this is based on low quality evidence.

Novel combinations of manual therapy and exercise should be compared with a realistic placebo in future trials.

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ELECTRO THERAPY TREATMENTS FOR ROTATOR CUFF DISEASE

Click for Full Text (Page et al. 2016)

This systematic review synthesized available evidence regarding the benefits and harms of electrotherapy modalities for the treatment of people with rotator cuff disease.

KEY FINDINGS

47 trials (2388 participants included).

Pulsed Therapeutic Ultrasound vs. Placebo; at 6 weeks:

Mean Reduction in Overall Pain:

Placebo (-6.3 points/52)

Ultrasound (-14.9 points/52)

Mean Improvement in Function

Placebo (3.7 points/100)

Ultrasound (17.8 points/100)

Reported Treatment Success

Placebo (52%)

Ultrasound (91%)

Between-group differences were **not important at 9 months.**

No additional benefits when combined with other PT interventions

MAIN TAKEAWAYS

Based on low quality evidence, **therapeutic ultrasound may have short-term benefits over placebo** in people with calcific tendinitis.

Low-level Laser Therapy (LLLT) may have short-term benefits over placebo in people with rotator cuff disease.

Based on low quality evidence, **Pulsed Electromagnetic Field Therapy (PEMF) may not provide clinically relevant benefits** over placebo.

Therapeutic ultrasound, LLLT and PEMF **may not provide additional benefits when combined with other physical therapy interventions.**

It is **uncertain whether TENS is superior to placebo.**

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