



# Clinical Weekly - 189<sup>th</sup> Edition

## #JOURNALTUESDAY - by Abi Peck

Effectiveness of conservative interventions including exercise, manual therapy and medical management in adults with shoulder impingement: a systematic review and meta-analysis of RCTs [Download here](#)

### 1. Did the review address a clearly focused question?

Yes – the effectiveness of conservative intervention for patients with shoulder impingement symptoms. Ages 18-65 years old. Outcome measures assessed with pain, function and AROM.

### 2. Did the authors look for the right type of papers?

RCT that compared at least one conservative measure to another or a sham intervention

### 3. Do you think all the important, relevant studies were included?

They used a big database search and narrowed down 5630 potential articles to 177 that met the inclusion criteria. Full text papers were used from peer reviewed journals. Other languages were included except Chinese and Farsi.

### 4. Did the review's authors do enough to assess the quality of the included studies?

Studies underwent exclusion criteria and a selection process. Risk of bias was assessed by 2 authors using Cochrane collaboration tools and the quality of evidence was also assessed.

### 5. If the results of the review have been combined, was it reasonable to do so?

Different interventions were compared against different controlled groups such as other treatment, usual care or sham tests. Studies were discussed in categories based on outcomes but different methods were described in more detail and analysed independently.

### 6. What are the overall results of the review?

Although there was a low quality of evidence most interventions were superior compared to sham intervention. Exercise in conjunction with tape, shockwave therapy, lasers or manual therapy should be encouraged based on evidence provided. NSAIDs and corticosteroids are more beneficial than placebos.

### 7. How precise are the results?

All studies used had a 95% confidence interval.

### 8. Can the results be applied to the local population?

Yes – a lot of the patients seen in practice were between 18-65 years old presenting with these symptoms for varying lengths of time.

### 9. Were all important outcomes considered?

Yes – pain, function and AROM.

### 10. Are the benefits worth the harms and costs?

No harms were associated with this study. However, there is found to be a low quality of evidence in the papers used.

## #NEWSOFTHEWEEK - by Liz Wright

### 1. Case scenario: Physical preparation of the football player with an intramuscular hamstring tendon tear: video demonstrations included

Hamstring strain injuries are common in professional sport, the musculotendinous junction being the most frequently injured site. The tendon extends into the muscle belly and has increased awareness of the intramuscular tendon injury, as shown by MRI. There is currently no consensus on intramuscular tendon injury management. However there is agreement that players are at an increased risk of re-injury RTP. This education review, outlines the rehabilitation of an English Premier League footballer following a proximal hamstring intramuscular tendon injury. The goal was to mechanically load the muscle-tendon unit aiming to a improve tensile strength, elastic stiffness and cross-sectional area. Adequate high and maximal speed running exposure and objective performance data informed progression through rehabilitation and RTP. The player returned to competition in 120 days and remained injury free 13 months later.





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## #NEWSOFTHEWEEK - by Liz Wright

### 1. Continued

In this environment, clinical decision making was underpinned by research, clinical evidence and clinician experience. Progression was driven by delivery of specific loading stimuli in both on and off pitch conditioning and assessed with neuromuscular tests measuring the player's response to load. The article has a wealth of video-demonstrations of the rehabilitation included. This should not be treated as a 'recipe' for the rehabilitation of hamstring strain injuries though may prompt clinicians to consider the importance of objective markers periodically through rehabilitation in order to guide the patients response to load.

<https://bit.ly/2Jr1cva>

### 2. WHO launch new global action plan on physical activity 2018-2030: 'More active people for a healthier world'

WHO's mission is to ensure that all people have access to safe and enabling environments and to diverse opportunities to be physically active daily, as a means of improving individual and community health and contributing to the social, cultural and economic development of all nations. The WHO are aiming to see a 15% relative reduction in the global prevalence of physical inactivity in adults and in adolescents by 2030. The new WHO global action plan sets out to promote physical activity and provide a framework of effective and feasible policy actions to increase physical activity at all levels. The plan was developed through a worldwide consultation process involving governments and key stakeholders across multiple sectors including health, sports, transport, urban design, civil society, academia and the private sector. Global progress to increase physical activity has been slow, mainly due to poor awareness and investment. Currently worldwide, 1 in 4 adults, and 3 in 4 children aged 11–17 years, do not currently meet the global recommendations for physical activity set by WHO. This global action plan sets out 4 strategic objectives achievable through 20 policy actions that are universally applicable to all countries, recognizing that each country is at a different starting point in their efforts to reduce levels of physical inactivity and sedentary behaviour.

<https://bit.ly/2xF5YAp>

### 3. Resource for OA patients

Many high-quality research studies show that exercise therapy is very helpful in decreasing pain and improving joint motion. A commentary published in the June 2018 issue of JOSPT highlights the importance of OA patients learning about the benefits of physical activity for improving OA pain and preventing other chronic health conditions (e.g. cardiovascular disease, type 2 diabetes, dementia) that often develop in those diagnosed with hip or knee OA. The authors offer 7 key recommendations. 1) Exercise and physical activity should be tailored to specific needs and preferences. 2) Consider water exercises if it is too painful to exercise on land. 3) Supervised exercise therapy over a 6-week period is often helpful to get patients started. 4) Some people may need 12 weeks of supervised therapy to begin. 5) After completion of a supervised therapy programme, some may need periodic "booster sessions" to help with long-term management of OA pain and overall health. 6) Home exercises should be performed to optimize outcomes. 7) Patients should be sure to understand how to manage flare-ups in pain and how to modify exercises when pain increases.

<https://bit.ly/2J9kpSI>





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## #FRACTUREFRIDAY BY SCOTT ROWBOTHAM

### Calcaneal Fracture

Calcaneal fractures are the most commonly fractured tarsal bone; 60% of all tarsal fractures being a calcaneal fracture. They account for 2% of all fractures

### Classification

They can be categorised as extra articular (25-30% of all fractures) and intra-articular (70-75%)  
You may also see this classification system:

Type A: the anterior process of the calcaneus is fractured

Type B: the mid calcaneus, trochlear process, and sustentaculum tali are fractured

Type C: the posterior tuberosity is fractured

The calcaneus is also a frequent bone to succumb to stress fractures, normally occurring in the posterosuperior aspect.

If a bilateral calcaneal fracture is seen there should be clinical evaluation of the spine due to the large axial load that will have gone through the spine to cause such an injury.

### Imaging

Böhler's angle can be used when viewing an X-Ray – When drawing two tangent lines across the anterior and posterior borders of calcaneus in the lateral view a fracture can be diagnosed if the angle becomes less than 20°.

A CT is the modality of choice to evaluate the extent and type of fracture.

#### Intra-articular fracture



#### Extra-articular fracture



### Rehabilitation

This is dependent on type of fracture. Immobilisation and conservative management is normally the followed protocol but physiotherapy can be challenging due to the need to weight bear on the heel. Gait re-education and gradual strengthening plus proprioception may take a significant amount of time.

