



Clinical Weekly - 150th Edition

#JOURNALTUESDAY - by Abi Peck

Article: 'The foot core system: a new paradigm for understanding intrinsic foot muscle function'. [Download here](#)

1. What were the aims of this study?
2. What did the study suggest?
3. What are the four arches in the feet?
4. How does this paper suggest you assess the intrinsic muscle function of the foot?
5. What are the best exercises suggested for activating the plantar intrinsic muscles?
6. Why do we do Achilles strengthening for plantar fasciitis?

#NEWSOFTHEWEEK - by Liz Wright

1. Treatment of calf pain in runners

Infographic based on Physio Edge podcast episode 66 with Tom Goom. Break rehabilitation into 4 key elements and ensure you are able to give clear explanations on the role of each component.

2. WHO launches new consultation on Global Action Plan for physical activity

This month the WHO launched the draft global action plan (see link below) which was informed by a group of global experts from a range of sectors (health, sport, transport and urban planning). The goal of the strategy is to get 1 hundred million people more active by 2010.

TREATMENT OF CALF PAIN IN RUNNERS

Based on Physio Edge podcast 66 with Tom Goom @tomgoom

1 Exercise therapy

a. Exercises to increase calf capacity

The quadriceps and gluteal muscles assist the calf with load absorption, strengthening these muscles may reduce the load on the calf complex during running.

b. Patients with calf pain may present with toe flexor weakness. Isometric strengthening of the toe flexors has been shown to improve plyometric performance

2 Neural mobility

a. Treat reduced neural mobility with a combination of spinal mobility exercises, slider/glider exercises +/- manual therapy

b. Perform low reps of neural mobility exercises frequently throughout the day

3 Training loads

a. Identify the distance or pace the patient can run before onset of symptoms. Use this as the starting point and gradually increase as symptoms allow.

b. Use short interval training to increase load capacity in runners who experience symptoms when running faster

c. Plan training to include a recovery day before a high intensity run to minimise the influence of fatigue

d. Runners who are unable to run may need a period of rehabilitation to build load capacity before returning to running



4 Gait retraining

a. Longer ground contact times, large vertical oscillation, rear foot eversion and over striding may increase the load on the calf complex

b. Increasing step rate and subtle changes to foot strike may reduce the peak demands on the calf complex

The plan is structured into 4 key areas:

- Creating an active society (positive attitudes within society towards activity, increasing knowledge and awareness)
- Creating active environments, (create safe places and spaces for people to be physically active)
- Creating active lives (provision of opportunities for physical activity; e.g. community based programmes)
- Creating active systems (more coordinated systems and policies) as well as monitoring and accountability.

Each action area includes a set of draft indicators and outcome measures, suggested actions and assigned roles. The International Society on Physical Activity and Health (ISPAH) is collecting feedback via an online survey until 22nd September 2017 (see link below). It's open to all and the combined response will be submitted to the WHO directly.

<http://bit.ly/2w66ztw> and

https://www.surveymonkey.co.uk/r/ISPAH_GAPPA

3. The efficacy and feasibility of aquatic physiotherapy for people with Parkinson's Disease: a systematic review

Aquatic physiotherapy may improve aspects of motor performance, quality of life and balance in people with Parkinson's disease, however, it remains unclear whether it is safe and feasible treatment modality

<http://bit.ly/2wdAChX>





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#FRACTUREFRIDAY by Sam Ackerley

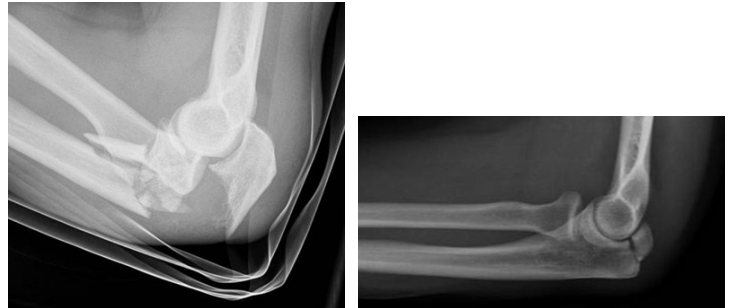
Ulna Fractures

Olecranon fracture

Olecranon fractures occur as the result of 1 of 4 mechanisms :

- Direct blow/ fall on the elbow
- Fall on outstretched hand with elbow flexed
- Avulsion fracture
- Stress fracture, e.g. throwing athletes and gymnasts

The ulnar nerve is closely related to the medial aspect of the olecranon and injury is possible, although not common.



Treatment

Due to the unopposed traction of the triceps muscle, these fractures are usually widely displaced and require open reduction and internal fixation (ORIF)

Unlike many other intra-articular fractures, olecranon fractures result in relatively little secondary osteoarthritic changes, probably on account of most fractures occurring though a relatively non-articular part of the trochlear groove

Monteggia fracture-dislocations

Fracture of the ulnar with dislocation of the radial head. Usually the result of a fall onto an outstretched hand, the direction of radial head dislocation depends on whether abduction or adduction forces were applied during the fall.

Monteggia fractures occur mostly in children (peak incidence at ages 4-10 years) and rarely in adults.

Classification

- I: anterior dislocation of radial head classic Monteggia fracture-dislocations- most common type
- II: posterior dislocation of radial head
- III: lateral dislocation of radial head
- IV: anterior radial head dislocation as well as proximal third ulnar and radial shaft fractures

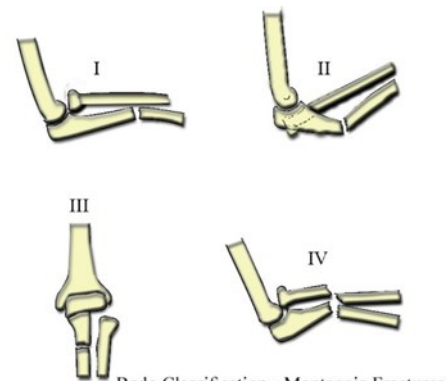
All four types of Monteggia fracture-dislocations are treated with open reduction and internal fixation. Types I, III, IV are cast at 110 degrees of flexion, whereas type II is cast at 70 degrees of flexion.

Ulnar styloid fracture

Occur in association with ~60% of distal radius fractures. Most of these are small avulsion fractures involving the tip of the ulnar styloid. Usually these kind of fractures occur as the result of a fall on an outstretched arm.

Resources

- <https://radiopaedia.org/articles/monteggia-fracture-dislocation>
- <https://radiopaedia.org/articles/olecranon-fractures-1>
- <https://radiopaedia.org/articles/ulnar-styloid-fracture-2>
- <https://radiopaedia.org/cases/monteggia-fractures-bado-classification>
- <https://radiopaedia.org/cases/olecranon-fracture-comminuted>



Bado Classification - Monteggia Fractures

S. Benoudina

