



Clinical Weekly - 160th Edition

#JOURNALTUESDAY - by Abi Peck

High load strength training improves outcome in patients with plantar fasciitis: A randomised controlled trial with 12-month follow up [Download here](#)

1. Did the trial address a clearly focussed issue?
2. Was the assignment of patients to treatments randomised?
3. Were all of the patients who entered the trial properly accounted for at its conclusion?
4. Were patients, health workers and study personnel 'blind' to treatment?
5. Were the groups similar at the start of the trial?
6. Aside from the experimental intervention, were the groups treated equally?
7. How large was the treatment effect?
8. How precise was the estimate of the treatment effect?
9. Can the results be applied in your context?
10. Were all the clinically important outcomes considered?
11. Are the benefits worth the harms and costs?

#NEWSOFTHEWEEK - by Liz Wright

1. 'How to' prescribe exercise for patellofemoral pain

Dr Christian Barton PhD, Bphysio (Hon), MAPA, MCSP presents an in depth presentation on the 'how to' for exercise prescription for PFP (follow the 1st link for the open access slides). Discussion of the general consensus statement of the management of PFP in 2016 is discussed. Specifically discussing which exercises? Should there be rest intervals? How much? For how long? When and how to determine load? Follow the 2nd link for a handout from the IPFN (The International Patellofemoral Research Network) which provides a table of the clinical recommendations for prescribing exercise therapy for PFP (based on RCTs evaluating exercise in patellofemoral pain and exercise prescription literature).

<http://bit.ly/2yMTipY> and <http://bit.ly/2yPqYmS>

2. Sleep: Why our brain needs it and what happens when we don't get enough

An article from Leonie Kirszenblat (a postdoctoral research fellow at The University of Queensland). While you sleep, your brain cycles through 2 main types of patterns: rapid eye movement (REM) sleep and slow-wave sleep. REM sleep is thought to be important for emotional memories (e.g memories involving fear) or procedural memory (e.g. how to ride a bike). Slow-wave sleep is thought to reflect the storing of declarative memories (conscious record of experiences and what you know e.g. what you had for breakfast). Replay occurs in neurons in the hippocampus helps to strengthen the connections between brain cells and is therefore thought to be important for consolidating memories. The brain needs to be selective about what it remembers. Sleep allows the brain to sift through memories, forgetting certain things so as to remember what's important. A leading theory of sleep function the synaptic homeostasis hypothesis suggests that during sleep there is a widespread weakening of connections throughout the brain. This is thought to counterbalance the overall strengthening of connections that occurs during learning when we are awake. Later in life, sleep declines and becomes more fragmented. This may reflect either a reduced need for sleep (as we are learning less) or a breakdown in sleep processes as we age. The longer-term effects of sleep deprivation are more difficult to study in humans for ethical reasons, but chronic sleep disturbances have been linked to brain disorders such as schizophrenia and Alzheimer's. Sleep deprivation can raise the risk of developing diabetes, weight gain, depression and more. <http://ab.co/2zjB9xm>

The NHS website has useful sleeping tips for appropriate sleep hygiene such as '10 tips to beat insomnia', a reliable site to recommend to patients. <http://bit.ly/2iwLfHO>





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3. Love Swimming: Swim England initiative encourages families to put gadgets away

The swimming industry has joined forces to inspire families to swap screen time for swim time and 'Love Swimming'. In the digital age, families are spending a great deal of time in front of screens; we have never been more connected to the world via the internet, but disconnected within the family unit. Swim England and 9 industry partners have come together to encourage people across the country to get off their screens and back into family fun at their local pool. Swimming together just once a week creates a precious opportunity for quality family time, being active and reconnecting with the real world. Plus, the pool is one of the few places you can completely escape the digital world compared to other family activities. <http://www.bbc.co.uk/sport/get-inspired/41559346>

#FRACTUREFRIDAY BY JOE RUSSELL

Carpal bone Fracture - 1st Metacarpal Fractures

Anatomy

The 1st metacarpal joins the radial aspect of the carpals to the phalanges of the thumb.

Bennett Fracture

A Bennett fracture-dislocation is a fracture of the thumb resultant of forced abduction of the first metacarpal. Defined as an intra-articular two-part fracture of the base of the first metacarpal bone. This will normally require ORIF.



Rolando Fracture

Rolando fracture is a three part or comminuted intra-articular fracture-dislocation of the base of thumb (proximal first metacarpal). It can be thought of as a comminuted Bennett fracture. The mechanism is usually an axial blow to a partially flexed metacarpal, such as a fistfight. The fracture line is typically T or Y-shaped. This will normally require ORIF.



Epibasal Fracture

Epibasal fractures of the thumb (also called pseudo Bennett's fracture) are two-piece fractures of the proximal first metacarpal bone. They are usually stable, depending on the degree of displacement, and often do not require surgery. These account for approximately 3% of all hand fractures and 16% of metacarpal fractures, and are mostly (>80%) seen in young men.



Normally these are managed conservatively in a thumb spica.

Gamekeepers Thumb

Gamekeeper thumb is essentially synonymous with skier thumb, although the latter has a more acute injury connotation. It is an avulsion or rupture of the ulnar collateral ligament (UCL) of the thumb. Typically (in skiers) the stock and stock-strap forcibly abducting the thumb during a fall or particularly aggressive pole-plant results in acute pain. In gamekeepers, perhaps an unusually thick-necked rabbit was the cause?



Management boils down to stability or bony lesion, which require fixation, however if stable conservative management is often effective.

Resources

<http://bit.ly/zklAZh4> <http://bit.ly/2ipDX4T> <http://bit.ly/2zsFsdQ>

