Clinical Weekly - 180th Edition

#JournalTuesday - by Abi Peck

Efficacy of foot orthoses for the treatment of plantar heel pain: a systematic review and meta-analysis. Rasenberg et al. 2018; BJSM. **Download here**

Questions:

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

Does consuming more protein during resistance based exercise lead to larger increases in muscle size and strength? *By Fran Taylor (Guest blogger, Tom Goom)*

The largest meta-analysis yet on such a topic, published in the BJSM. 49 high quality studies were included (1,863 participants- various age ranges, levels and males/females). Eating > the recommended 0.75g of protein per kg of body weight could help you build muscle as a complementary part of your training regime. But consuming > 1.6 grams of protein per kg of body weight a day did not result in more muscle benefits. Spreading protein across the day in 20-30g doses with each meal and snack will provide a steady supply of amino acids necessary for optimum muscle repair and growth. Protein needs can be achieved from a well-balanced diet, though protein supplements can be used in addition though not as a replacement for real food.
https://bit.ly/2GzSYvO & https://www.ncbi.nlm.nih.gov/pubmed/28698222

Food source	Protein (grams)
100g chicken	32g
100g tuna (tinned)	23.5g
Two eggs	12.5g
250ml skimmed milk	8g
100g cottage cheese	12.6g
100g Greek yoghurt	10g
100g oats	11g
100g lentils	7.6g
100g chickpeas	8.4g

Incidence and prevalence of patellofemoral pain: A systematic review and meta-analysis

From the 23 studies included, annual prevalence for PFP in the general population was reported as 22.7%, and adolescents as 28.9%. Point prevalence within military populations was reported at 13.5%; female general populations 12% -13%; multi-day amateur cyclists 35%; and female elite sports 16.7% - 29.3%. Despite the high incidence levels, there is a large discrepancy with research funding and priorities for PFP compared with other knee conditions (14,000+ papers for knee OA in the last 20 years vs 1,500 for PFP). Due to high incidence and prevalence numbers, poor long term prognosis and high disability levels, PFP should be an urgent research priority.

https://bit.ly/2ERc2Ey

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Neck strengthening – Kay Robinson

Infographic based on clinical edge podcast episode 73, which highlights when strengthening should be used, who will benefit and how it can be incorporated into treatment.

https://bit.ly/2q5OJkT

#FractureFriday by Scott Rowbotham

Tillaux fractures

This is a Salter-Harris III fractures through the anterolateral aspect of the distal tibial epiphysis

It is a paediatric fracture occurring in older children and adolescents when the medial aspect of the distal tibial growth plate has started to fuse. This initial fusion typifies the type of fracture and mechanism of injury due to the growth plate fusion commencing from medial to lateral aspect.

Mechanism of injury

The fracture commonly results from an abduction-external rotation mechanism. With this mechanism, the anterior tibiofibular ligament avulses the anterolateral corner of the distal tibial epiphysis

Imaging

The lack of a fracture component in the coronal plane (evaluated with lateral x-ray or CT) distinguishes a Tillaux fracture from a triplanar fracture.

Rehabilitation

The degree of displacement will dictate management.

Operative reduction and internal fixation (ORIF) is required when the displacement is marked or unable to be eliminated with closed reduction.

Complications

As with any intra-articular fracture if a step is left in the articular surface, then the joint will go on to premature secondary osteoarthritis.

Reference

https://radiopaedia.org/articles/tillaux-fracture