

**#JOURNALTUESDAY - by Abi Peck**

Questions for evidence based diagnosis and treatment of the painful sacroiliac joint

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**1) What are the 5 provocation tests for SIJ diagnosis?**

- Distraction
- Compression
- Sacral thrust
- Thigh thrust
- Gaenslen's test

**2) What is the sensitivity and specificity for a cluster of 3 or more of the provocation tests?**

- Sensitivity 91% - specificity 78%

**3) What is the value in these measures?**

- 3 out of 5 of the tests show good diagnostic value of ruling in people with the SIJ at the origin of pain.

**4) What are the three ways the paper suggests you can differentiate SIJ pain from other types of lower back pain?**

- 3 or more of the provocation tests are positive
- McKenzie treatment doesn't not help to centralise the pain if there is a buttock/leg referral
- Pain is localised to SIJ region

**5) What treatment for SIJ pain has some validity?**

- Cortisone injections
- Stabilisation exercises for lumbopelvic region

**#CLINICALSKILLSFRIDAY by Jess Miller - Pittsburgh knee decision rules**

The Pittsburgh Knee Rules were developed to determine the need for radiographs in people with acute knee injury to rule out fractures.

Seaberg and Jackson (1994) suggest the decision rule could reduce the number of X-rays by 78%.

The rules recommend sending people for a radiograph if they meet the following criteria:

-Blunt trauma or fall as mechanism of injury PLUS either of the following:

- 1) Older than 50 or younger than 12 years old
- 2) Inability to weight bear 4 steps in the emergency department

Sensitivity: 99%

Specificity: 60%

For the next **#CLINICALSKILLSFRIDAY**- Canadian Cervical Spine Rules

Any pictures, suggestions or comments to [Jessica.z.miller@ahpsuffolk-cic.nhs.uk](mailto:Jessica.z.miller@ahpsuffolk-cic.nhs.uk)

### **#NEWSOFTHEWEEK by Liz Wright**

#### **1) Are 2D measured frontal plane angles related to 3D measured kinematic profiles during running?**

This observational study investigated the relationship between 2D measured frontal plane joint angles and 3D measured kinematic profiles during the stance phase of running. Main outcome measures included; contralateral pelvic drop (CPD), femoral adduction (FA), hip adduction (HA) and knee valgus (KV), measured at the deepest landing position during mid-stance with 2D video analysis during running. CPD, HA and knee abduction were measured continuously during the entire stance phase through 3D motion analysis. One-dimensional statistical parametric mapping was used to examine any relationships between the 2D angles and 3D profiles. Results found 2D CPD, FA and HA were significantly related to the 3D HA kinematic profile. 2D CPD was significantly related to the 3D CPD profile. Excellent intra- and inter-tester reliability was found for the 2D angles. Overall there is support for implementing 2D video analysis evaluating CPD and HA during running.

<http://bit.ly/2YLUy2>

#### **2) Achilles Impingement Tendinopathy on MRI impingement might be an unrecognized cause of Achilles tendinopathy and subsequent rupture.**

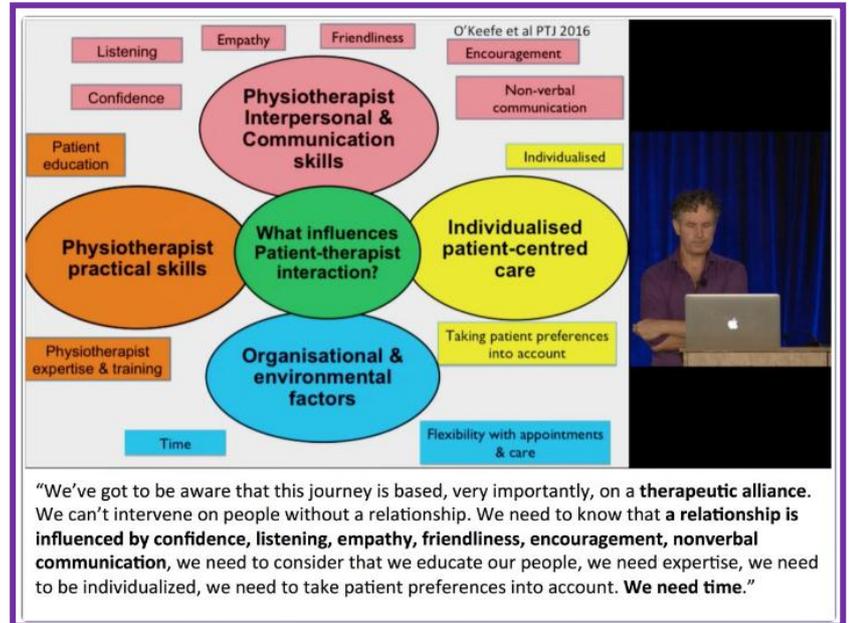
Haglund's syndrome is impingement of the retrocalcaneal bursa and Achilles tendon caused by a prominence of the posterosuperior calcaneus. The aim of the cross-sectional study was to determine its prevalence in Achilles tendinopathy patients and associated findings enabling diagnosis. 40 MRI scans with Achilles tendinopathy and 19 MRI scans with Achilles high-grade tears and/or ruptures were reviewed. Achilles tendinopathy was often in close proximity to the superior aspect of the calcaneal tuberosity, consistent with impingement (67.5%). Patients with impingement tendinopathy were more often female and with a higher BMI than those presenting with non-insertional Achilles tendinopathy/rupture. Achilles impingement tendinopathy might be more appropriate terminology for Haglund's syndrome, because the bone deformity is often subtle. Insertional and non-insertional Achilles tendinopathy are not mutually exclusive and impingement might be a subtle, unrecognized cause of tendinopathy. <http://bit.ly/2miXoQ7>

### **#TWEETOFTHEWEEK**

What [@PeteOSullivanPT](https://twitter.com/PeteOSullivanPT) says we need for the journey with someone who has chronic pain.

**3) Challenges of managing chronic pain- ensure realistic expectations.**

Chronic pain is an individualised experience with multifactorial aetiology. Managing chronic pain is to fight a “war” not a “battle.” Both clinicians and patients must start with the right expectations and develop a long term strategy with full awareness of the complexity of the problem. Patients with diabetes do not expect control after a single course of treatment—they expect a long term plan that includes diet, exercise, medication, education, and prevention. Patients with chronic pain (and their doctors) should expect a similar long term multifaceted approach. Unrealistic expectations of a “quick fix” can become a source of anxiety for patients and result in unnecessary medicating and dose acceleration. Pain is a defence signal and its proper function is necessary for our survival. The aim of chronic pain management is not to get rid of the defence signal but to adjust its threshold so that the signal will not go off inappropriately.



<http://www.bmj.com/content/bmj/356/bmj.j741.full.pdf>

**#VITAMINOFTHWEEK – by Sam Ackerley**

**THIAMIN (vitamin B<sub>1</sub>)**

Thiamine was one of the first compounds recognized as a vitamin. Thiamine is involved in many body functions, including nervous system and muscle function, the flow of electrolytes in and out of nerve and muscle cells, digestion, and carbohydrate metabolism.

**RDA**

Men: 1.2 mg Women: 1.1 mg

**Top 10 sources: (Per 100 grams)**

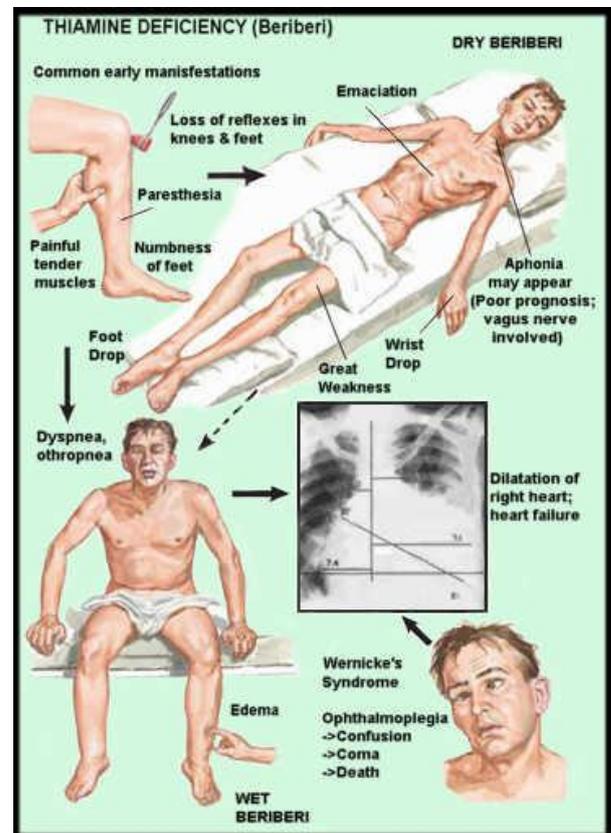
1. Seeds (Sunflower) 1.48mg (99%)
2. Pork (Lean) 1.12mg (74%)
3. Nuts (Macadamia) 0.71mg (47%)
4. Bread (Wheat) 0.47mg (31%)
5. Fish (Trout) 0.43mg (28%)
6. Dry Roasted Soy Beans (Edamame) 0.43mg (28%)
7. Green Peas 0.28mg (19%)
8. Beans (Navy) 0.24mg (16%)
9. Acorn Squash (Acorn) 0.17mg (11%)
10. Asparagus (Cooked) 0.16mg (11%)

### Deficiency

**Beriberi** is a neurological and cardiovascular disease. There are two types: wet and dry (see image). Other forms include Infantile and Gastrointestinal beriberi. Following thiamine treatment, rapid improvement occurs, in general, within 24 hours. Improvements of peripheral neuropathy may require several months of thiamine treatment.

**Wernicke-Korsakoff syndrome** is combination of two brain disorders caused by thiamine deficiency. Wernicke disease involves damage to nerves in the central and peripheral nervous systems, characterized by the presence of a triad of symptoms:

- Ocular disturbances (ophthalmoplegia) -weakness/ paralysis of the extraocular muscles responsible for eye movements.
  - Changes in mental state (confusion)
  - Unsteady stance and gait (ataxia)
- It is often caused by malnutrition due to alcoholism.



Korsakoff syndrome is characterized by an acute onset of severe memory impairment without any dysfunction in intellectual abilities. High doses of thiamine can improve muscle coordination and confusion, but rarely improves memory loss.

Symptoms include:

- Anterograde amnesia (loss of the ability to create new memories)
- Variable presentation of retrograde amnesia (loss of memory / information known prior to injury or the onset of a disease)

And one of:

- 1) Aphasia (inability to comprehend and formulate language)
- 2) Apraxia (inability to perform particular purposive actions/ difficulties with motor planning)
- 3) Agnosia (inability to process sensory information. Often there is a loss of ability to recognize objects, persons, sounds, shapes etc.)
- 4) A deficit in executive functions (attentional control, inhibitory control, working memory, and cognitive flexibility, as well as reasoning, problem solving, and planning.)

Resources: <https://tinyurl.com/hgja3vf>  
<https://tinyurl.com/jxc45ep>  
<https://tinyurl.com/p4l2ge7>

Images:

[Food] <https://tinyurl.com/h86zbjw>  
 [Infographic] <https://tinyurl.com/z7tjluj>