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- ❑ Member of the British Chiropractic Sports Council
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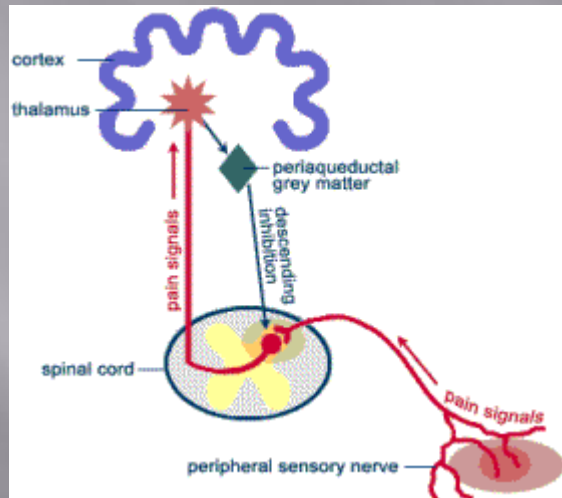
# Western Medical Acupuncture

- ▣ *History: Chinese Nei Jing 100 B.C., points of bloodletting causing pain relief? (Campbell, 2004). 1500 B.C Ancient Chinese stimulated points with bones.*
- ▣ *1958: China reports on surgery under electroacupuncture (Ulett & Hahn, 2002).*
- ▣ *1965: Melzac and Wall “gate theory”.*
- ▣ *1975: Kosterlitz and Hughes report on “endorphins”.*

# *Is Acupuncture all Placebo?*

- ▣ “Yes, but so is every other form of medical treatment.”
- ▣ There is placebo *in addition* to scientifically demonstrated neuro-chemical actions. Chinese acupuncture has lasted for 3.000 years due to placebo AND physiological effects. Mosley (Texas) reported a double blinded trial of simple knee incision giving as much pain relief as arthroscopic procedure.

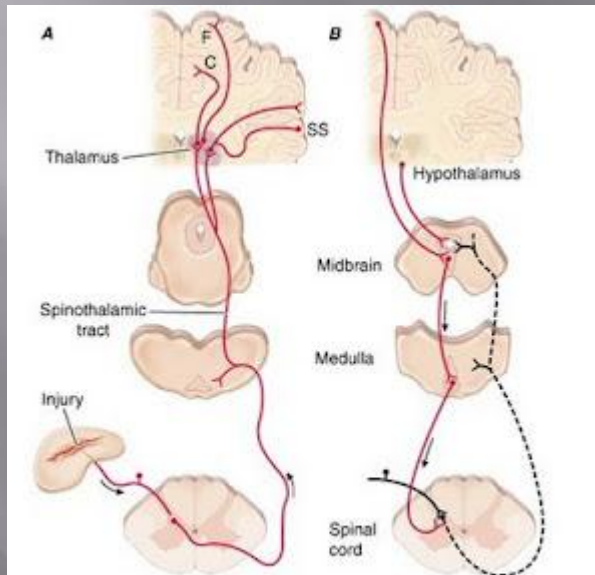
## □ Pain Pathways:



- Chinese research showed that noxious stimuli could be stopped by acupuncture at LI-4
- Gate Theory: myelinated (fast) nerve impulses can block noxious flow on unmyelinated fibers. “Closes Gate” on upward flow of pain to the brain.

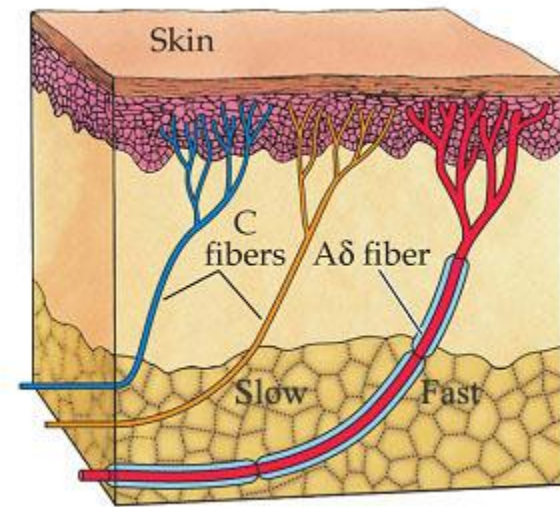
## ACUPUNCTURE NEEDLE PENETRATION:

- 1) **SEGMENTAL: RELEASE OF ENKEPHALIN/DYNORPHIN**
- 2) **MIDBRAIN: PAG MATTER RELEASE OF ENKEPHALIN RELEASE OF SEROTONIN INTO SC. IMPULSE DOWN DORSOLATERAL TRACT RELEASE OF SEROTONIN AND NORADRENALINE. SYNAPTIC INHIBITION.**
- 3) **PITUITARY-HYPOTHALAMUS: RELEASE OF B-ENDORPHINS IN CSF. CO-RELEASE OF ACTH AND CORTISOL INTO BLOOD STREAM THUS REDUCING INFLAMMATION.**



Source: Fauci AS, Kasper DL, Braunwald E, Hauser SL, Longo DL, Jameson JL, Loscalzo J, Harrison's Principles of Internal Medicine, 17th Edition. <http://www.accessmedicine.com>  
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**ACUPUNCTURE PENETRATION ACTIVATES: DELTA FIBRES (HEAVINESS AND DISTENSION), GAMMA FIBRES (NUMBNESS), C-FIBRES - SORENESS. ALL DEQI SENSATIONS.**



BIOLOGICAL PSYCHOLOGY, Fourth Edition, Figure 8.23 © 2004 Sinauer Associates, Inc.

# Neurochemistry of Acupuncture:

- ▣ Han (2002) used electroacupuncture to show that B-endorphins and enkephalins could be released in the brain and dynorphins and enkephalins could be released in the spinal cord.
- ▣ Han (2002) further showed that electroacupuncture can increase pain threshold in rats.

# Acupuncture Safety:

- ▣ Roughly 1:10.000 side-effects (White et al., 2001).
- ▣ Bruising, Fainting, infection, broken needle, auriculotherapy, needle stick injury, allergy, drowsiness.
- ▣ Care: pregnancy, epileptics, pacemakers.
- ▣ Broken needle: needles may break in situ.
- ▣ Hepatitis B/ spinal infection.

# Hazardous Acupuncture Points:

- ❑ A good knowledge of anatomy is an essential prerequisite to any acupuncture: there is possibility of pneumothorax when Ren17 are needled
- ❑ Areas not to be needled: fontanelle in babies, nipples, umbilicus, the eyeball and external genitalia.
- ❑ Infection: care with thin and fragile skin, care with any needling of the jaw or any other area that may be prone to infection.
- ❑ Auriculotherapy: Surface wax has to be removed with swab. Care with indwelling needles due to perichondritis.



# Acupuncture Regulation in the UK:

- ▣ Still in process, there are different bodies in the UK that regulate their members.
- ▣ BAAC, BMAS, traditional acupuncture associations.
- ▣ BAAC members have undergone a minimum of three years training most at TCM colleges.
- ▣ BMAS members: mainly GP's and other healthcare providers. Offer entry-level courses and MSc in Western Medical Acupuncture. Open to HCP Podiatrists.

# Evidence for Musculoskeletal Conditions:

- ▣ Electroacupuncture: **GOOD** evidence especially for OA of knees and acute and chronic lower backpain, shoulderpain, neck pain, chronic MSK pain, Tension type of headache, migraine.
- ▣ (Cummings, 2005)

# Acupuncture and Plantar Fasciitis

- Little Research available:
- Systematic Review (2011) by Cotchett, MP, Landorf, KB, Munteau, SE. looking at effectiveness of dry needling and trigger point injections. Conclusion: limited evidence available. Only three studies available of poor quality/
- RCT by Zhang et al., (2009). Acupuncture at Pc-7 (wrist crease), control at LI-4 (thumb web). Small size n=27, control= 25. 10 treatments over 2 weeks. Significant drop in VAS score.
- Case Report (Bailey, 2009). PodiatryNow. Chronic bilateral heel pain. Treatment 1: Cobra pad with heel cushion/raise on insole. US bilaterally. Needling of triggerpoints . Results: Pain in quadratusplantae improved but worse pain around the heel. Treatment 2: traditional acupuncture to Kidney and Ubladder meridian: Ki-3, Ki-6. Four visits and discharged.

# Case of Bilateral Plantar Fasciitis:

- ❑ 42 year old hairdresser with chronic bilateral heel pain attributed to years of wearing designer shoes. O/E. Patient overweight, tight gastrocs and soleus muscles and point tenderness at the insertion of the plantar fascia into the medial tubercle of the calcaneum.
- ❑ Treatment: Heelcushion, icemassage, stretch, deep STW and acupuncture to TPTs, Ah Shi points and traditional acupuncture points. Kinesiotaping. Resolved completely following 8 treatments.



## ▣ **Acupuncture and OA:**

- ▣ **Good evidence by Cochrane Review: Clinically significant improvements. However, authors attribute much of this to patient expectation (placebo!).**

**(Cochrane Database Syst Rev. 2010 Jan 20;(1):CD001977. Acupuncture for peripheral joint osteoarthritis. Manheimer E, Cheng K, Linde K, Lao L, Yoo J, Wieland S, van der Windt DA, Berman BM, Bouter LM.)**

## 2 cases of OA of the knee:

- ▣ 61 year old male, very active: Gym, cycling, rowing. Kneepain of 4 years duration original onset through dancing and twisting. 7 sessions of E-Acupuncture (mixed frequencies) and Glucosamine Sulphate HCL (1500mg). Previous history of osteopathy (massage) no help.
- ▣ 67 year old male, obese, inactive (some golf and walking), 7 sessions same treatment as above. Around 70 % overall.



# Trigger Point Acupuncture in Athletes

- Richard, Team GB triathlete and Duathlete, came 3<sup>rd</sup> in running in Edinburgh Eurochampionships 2010. Has regular TPT acupuncture for lower limbs.



# Other potential uses for Podiatrists:

- ▣ Ankle sprains (acute and chronic):
- ▣ Metatarsalgia.
- ▣ General Joint pains, occasionally even used in gout.





# Thank you for listening!!

- ▣ If there is enough interest I would be happy to teach a small group of podiatrists to use acupuncture to use as part of their work please email to [jonchiro69@yahoo.co.uk](mailto:jonchiro69@yahoo.co.uk)
- ▣ Ring: 01908 690544

# References:

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