Medical Acupuncture

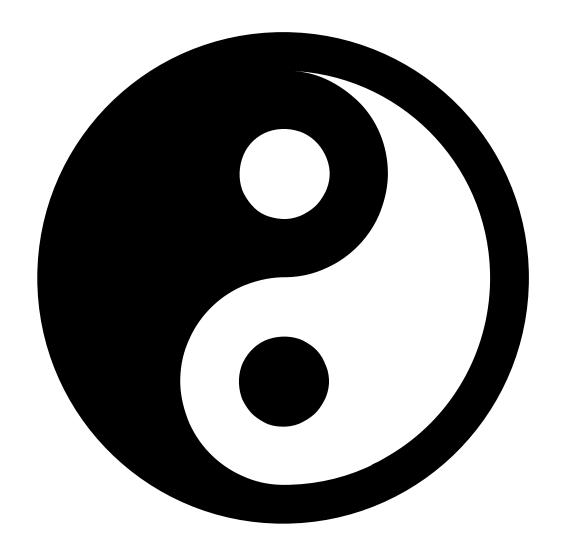
Women in Medicine Kendra Unger, MD, FAAMA June7, 2024



### Evidence Based Medicine







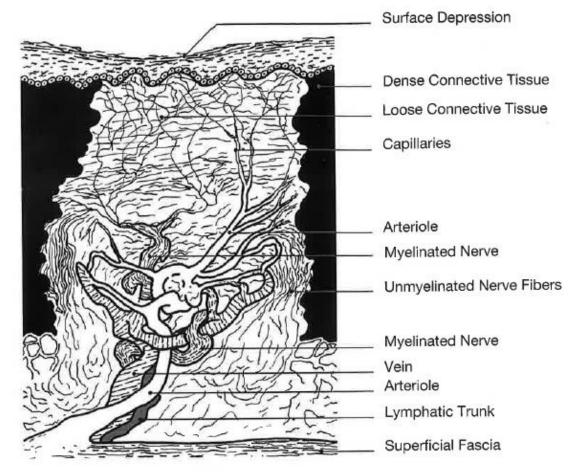


# What is acupuncture?

- Acus Needle, pin + Punctum Small hole, puncture
- Acupuncture is a method of encouraging the body to promote natural healing and improve function. This is done by inserting needles and applying heat or electrical stimulation at very precise acupuncture points.
- Acupuncture is a technique in which practitioners insert fine needles into the skin to treat health problems. The needles may be manipulated manually or stimulated with small electrical currents (electroacupuncture).

#### How does it work?

- Neurovascular bundles of A-delta and C nerve fibers
- proximate to cranial or peripheral nerves or their branches
- Optimal acupuncture stimulates both A-delta and C nerve fibers



Helms J. Acupuncture Energetics: A Clinical Approach for Physicians. Textbook. Theme Publishers. 1995. Image used with permission from Dr Helms

#### **fMRI**

- Type of MRI that shows brain activity
- BOLD signal (blood-oxygen-level-dependent)
  - Not individual neurons but local clusters of neurons

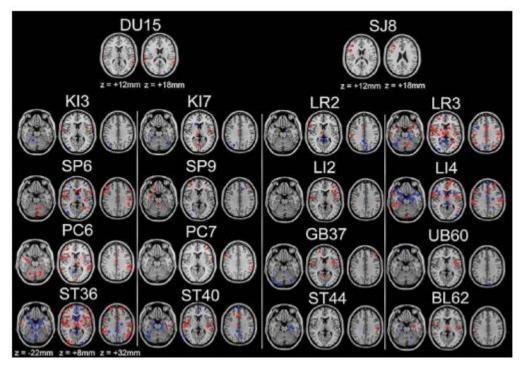


Fig. 3: Map of brain response to 18 different acupuncture points. Red = activation; Blue = deactivation; Yellow = overlap (reproduced from Huang W et al. PLoS ONE 4, 2012: 1-19, figure 3)

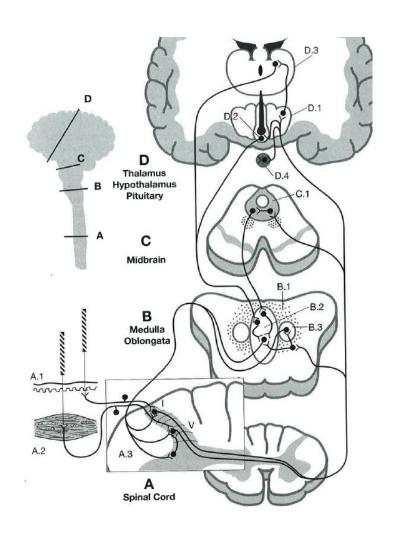
# The Acupuncture Meridian

- Our nervous system is likely the basis of the acupuncture meridians
- No discrete nervous system in TCM



Helms J. Acupuncture Energetics: A Clinical Approach for Physicians. textbook. Theme Publishers. 1995 Image used with permission from Dr. Helms

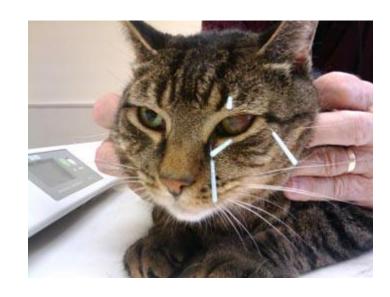
- Requires intact ascending pain pathways
- Spinal cord and brain activation of endogenous descending pain inhibition
- Spinal cord and brain also involved in acupuncture's nonpain effects
- Causes release of endorphins and enkephalins



Helms J. Acupuncture Energetics: A Clinical Approach for Physicians. Textbook. Theme Publishers. 1995. Image used with permission from Dr Helms

# Not unique to Humans



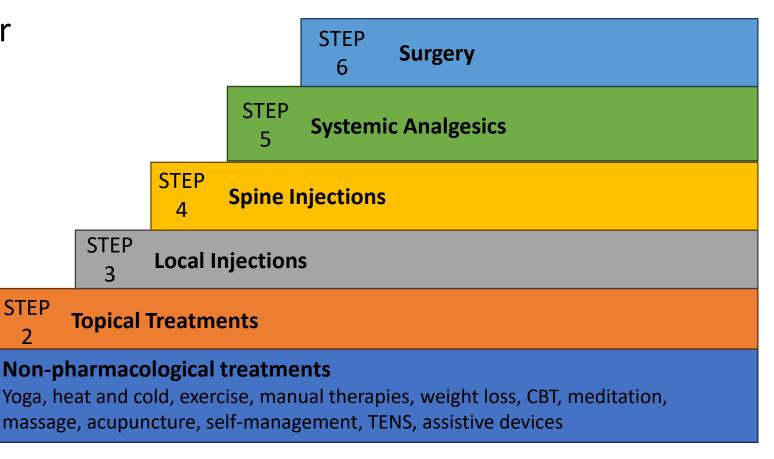


# But does this stuff really work?

**STEP** 

STEP

 Let's ask the NIH Pain Consortium about their stepped care recommendations for chronic low back pain



# But what else you got?

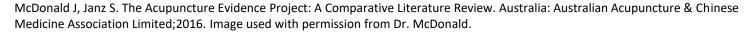
American College of Physicians 2017

"For patients with chronic low back pain, clinicians and patients should initially select nonpharmacological treatment with exercise, multidisciplinary rehabilitation, acupuncture, mindfulness-based stress reduction (moderate-quality evidence), tai chi, yoga, motor control exercise, progressive relaxation, electromyography biofeedback, low-level laser therapy, operant therapy, cognitive behavioral therapy, or spinal manipulation.(Grade: strong recommendation)"

#### Evidence of Potential Positive Effect (38 conditions)

Reviews reporting all individual RCTs or pooled effects across RCTs as positive, but the reviewers deeming the evidence insufficient to draw firm conclusions

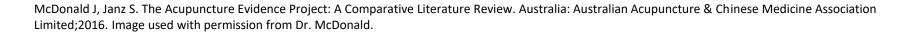
	Acute low back pain	Modulating sensory perception thresholds	
	Acute stroke	Neck pain (NAD, not WAD)	
	Ambulatory anaesthesia	Obesity	
	Anxiety	Perimenopausal & postmenopausal insomnia	7
<b>\</b>	Aromatase-inhibitor-induced arthralgia	Plantar heel pain	
	Asthma in adults	Post-stroke insomnia	
	Back or pelvic pain during pregnancy	Post-stroke shoulder pain	
	Cancer pain	Post-stroke spasticity	
	Cancer-related fatigue	Post-traumatic stress disorder	
	Constipation	Prostatitis pain/chronic pelvic pain syndrome	4
	Craniotomy anaesthesia	Recovery after colorectal cancer resection	
	Depression (with antidepressants)	Restless leg syndrome	
	Dry eye	Schizophrenia (with antipsychotics)	
	Hypertension (with medication)	Sciatica	
	Insomnia	Shoulder impingement syndrome (early stage) (with exercise)	
	Irritable bowel syndrome	Shoulder pain	
7	Labour pain	Smoking cessation (up to 3 months)	
	Lateral elbow pain	Stroke rehabilitation	
7	Menopausal hot flushes	Temporomandibular pain	



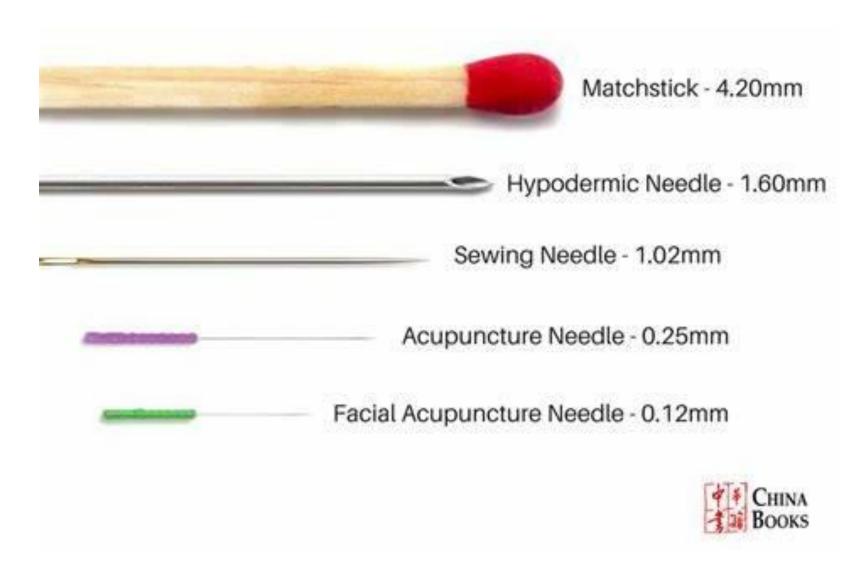
#### Clinical practice guidelines which recommend acupuncture

By November 2015, over **870 recommendations for acupuncture were identified for over 100 conditions** from multiple international groups and over 30 countries. Examples include:

- Acute Pain Management: Scientific Evidence published by the Australian and New Zealand College of Anaesthetists and Faculty of Pain Medicine in 2015
- Clinical Practice Guidelines for the Management of Rotator Cuff Syndrome in the Workplace published by The University of New South Wales in 2013
- Consensus Guidelines for the Management of Postoperative Nausea and Vomiting published in USA by the Society for Ambulatory Anaesthesia in 2014
- Clinical Practice Guidelines For Allergic Rhinitis published by the Otolaryngology Head Neck Surgery Foundation's in 2015
- The National Institute for Health and Care Excellence (NICE), UK for migraine and tension type headache in 2012
- Guideline for the Management of Chronic Pain published by The Scottish Intercollegiate Guidelines Network in 2013
- Clinical Practice Guidelines for Breast Cancer Treatment published by The National German Gynaecologic Oncology Association's (Arbeit gemeinschaft Gynakologische Onkologie) in 2015.



### Do the needles hurt?



# Are there different types of acupuncture?

- Neuro-anatomical
- French Energetics
- Five Phases/Five Elements (TCM)
- Microsystems
  - Chinese Scalp
  - Korean Hand
  - Auricular

# Our set-up



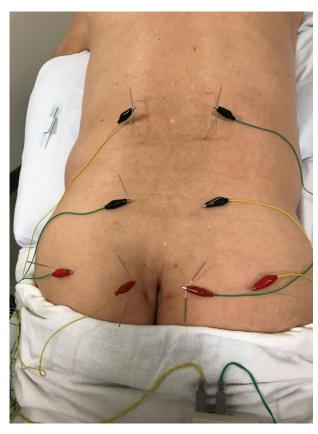


# equipment



### Treatment

**Neuroanatomical: PENS** 

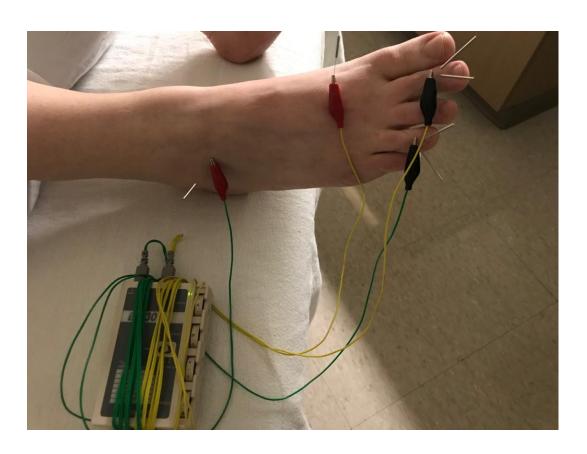


French Energetics: Shao Yin/Tai Yang



### treatment

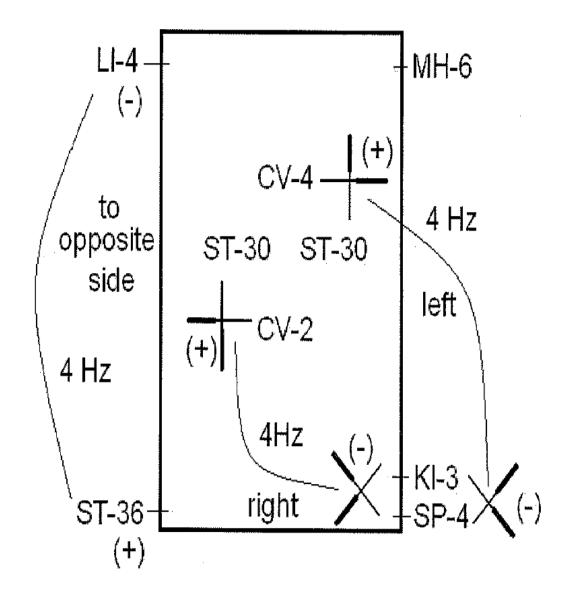
#### **BaFeng**

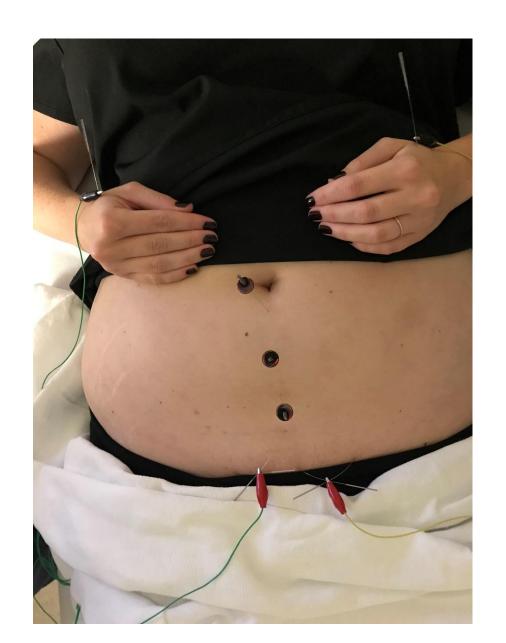


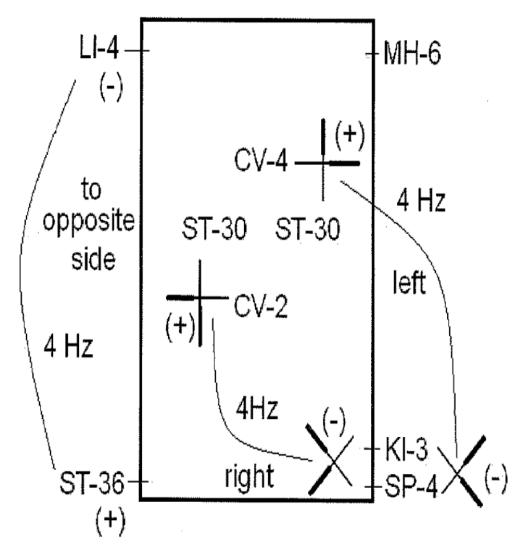
#### **KBII**



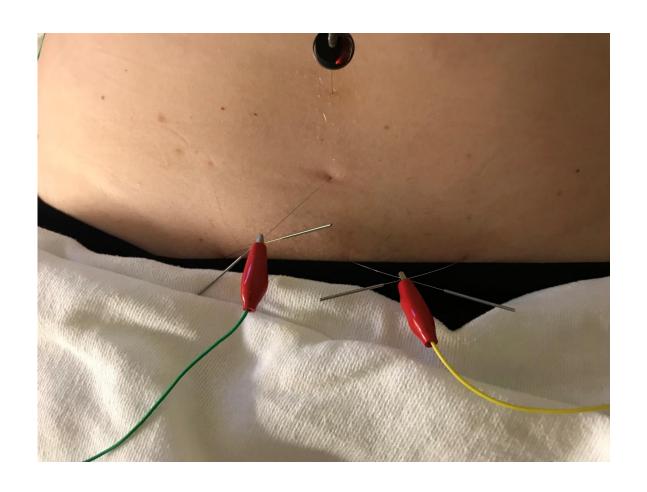


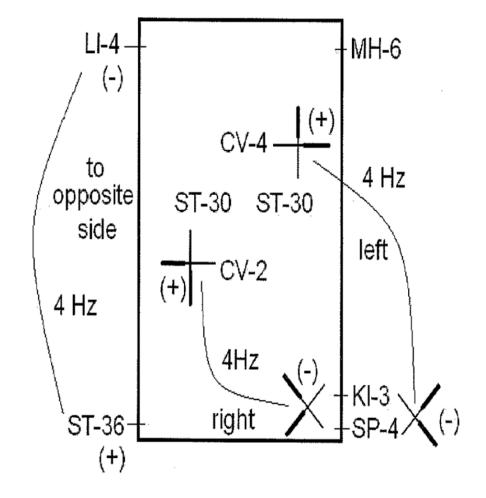




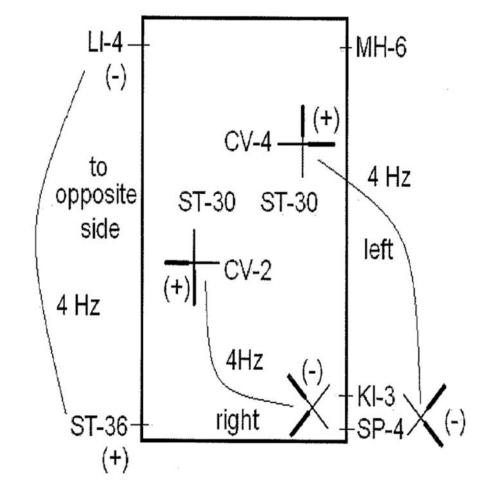


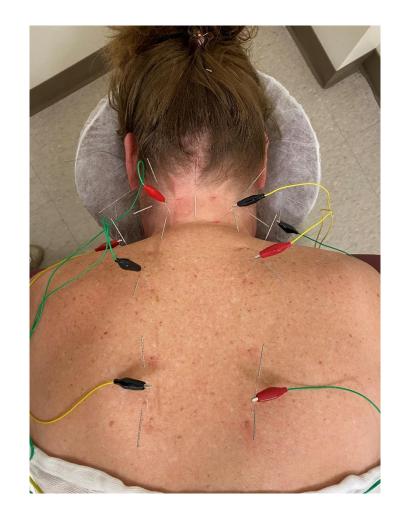
(Helms Medical Institute ISBN: 978-1-57250-710-4

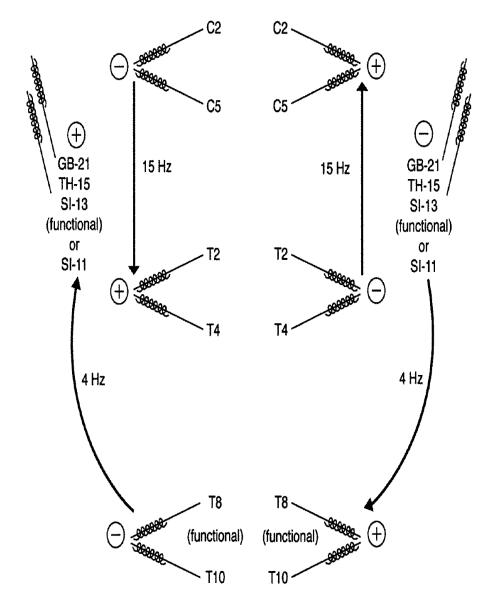






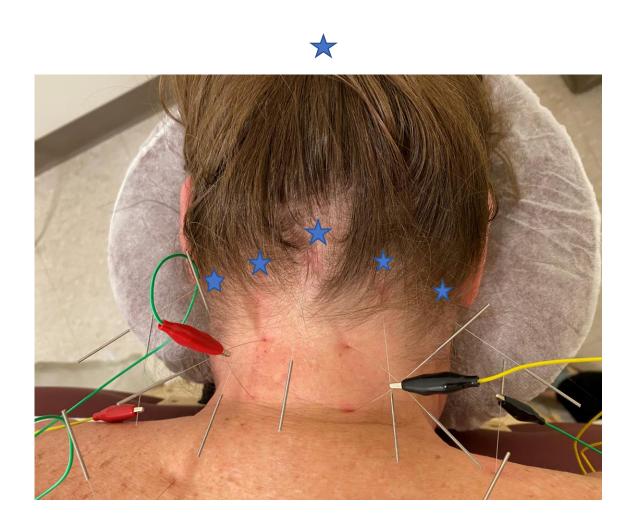






(Helms Medical Institute ISBN: 978-1-57250-710-4)

# Kendra's crown



## Get them involved!



# "Queasy Beads"







### Insomnia

- Find the cause
- GB-20 to TH-16





# Tonsillitis/Pharyngitis

• LI-18 SI-17 CV-23







### Otitis Media

• TH-17, SI-19 and GB-2







## TEENAGERS!!!!

• 2 words! Kauffman Cocktail!



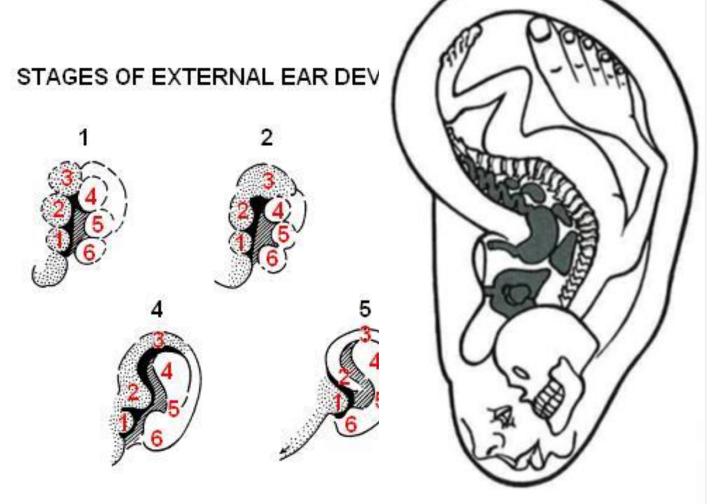
### Auricular

 Auricular Acupuncture – Therapeutic intervention in which Stimulation of the auricle of the external ear is utilized to alleviate health conditions in other parts of the body.



### But how would that work?

 The external ear is one of the few structures that is composed of tissue from all three embryologic germ layers.



#### Map the specificity of auricular points

# Mapped the left thumb and left brain-stem points

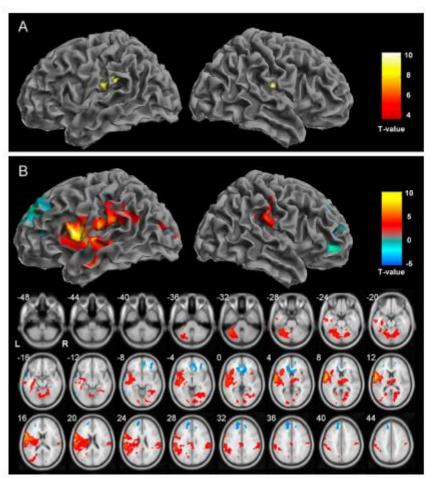


Fig. 5 A: fMRI results of the stimulation of the left thumb point represented on a 3D surface; Fig. 5 B: fMRI results of the stimulation of the brain stem point represented on a 3D surface (top row). Axial slices show deep activations. (Colorbar represents T values) (with permission)

(Romoli)

### fMRI and Nearby Points

Preliminary data, untimely death of Dr. Romoli

- Investigating the specificity of points close together on the ear
- Right thumb and right hallux stimulation

#### 2 preliminary conclusions

- Points close to each other on the ear still have specificity
- Predominantly activates the ipsilateral or both hemisphere of the brain

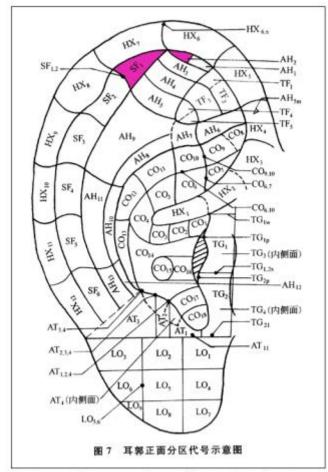


Fig. 6: current Chinese nomenclature and location of auricular points; SF1 = fingers, AH2 = toes.

# What do you mostly use it for?

- Chronic Pain and Emotional Problems Auricular Trauma Protocol (ATP)
- Acute Pain Battlefield Acupuncture (BFA)
- Drug Detox, Substance Abuse Treatment and Stress National Acupuncture Detox Association Protocol (NADA)

## WV Loves Auricular Acupuncture



y. Green existing code. New row code to be chacted

# WEST VIRGINIA LEGISLATURE 2019 REGULAR SESSION

**ENROLLED** 

for House Bill 2324

By Delegate Summers and Pushkin

[Passed February 21, 2019; in effect ninety days from passage.]

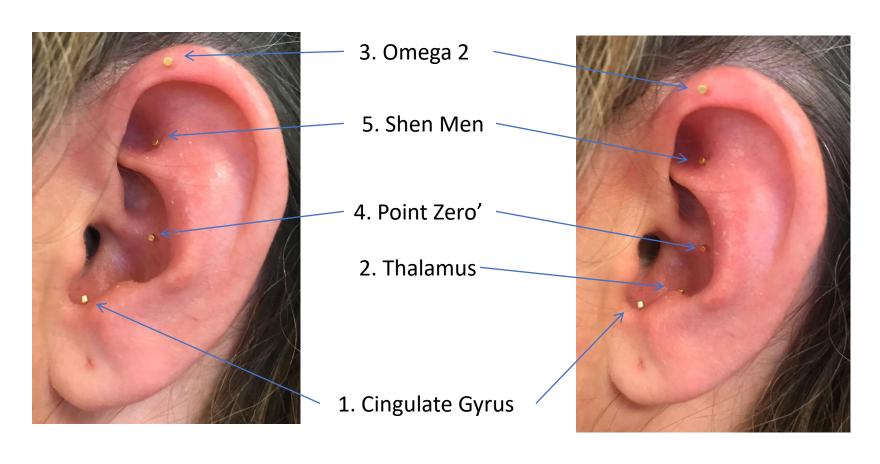
## Auricular Detox Specialist

- (A) Physician assistant, pursuant to §30-3E-1 et seq. of this code;
- (B) Dentist, pursuant to §30-4-1 et seq. of this code;
- (C) Registered professional nurse, pursuant to §30-7-1 et seq. of this code;
- (D) Practical nurse, pursuant to §30-7A-1 et seq. of this code;
- (E) Psychologist, pursuant to §30-21-1 et seq. of this code;
- (F) Occupational therapist, pursuant to §30-28-1 et seq. of this code;
- (G) Social worker, pursuant to §30-30-1 et seq. of this code;
- (H) Professional counselor, pursuant to §30-31-1 et seq. of this code;
- (I) Emergency medical services provider, pursuant to §16-4C-1 et seq. of this code; or
- (J) Corrections medical providers, pursuant to 15A-1-1 et seq. of this code.
- (3) Provide evidence of successful completion of a board-approved auricular acudetox program;

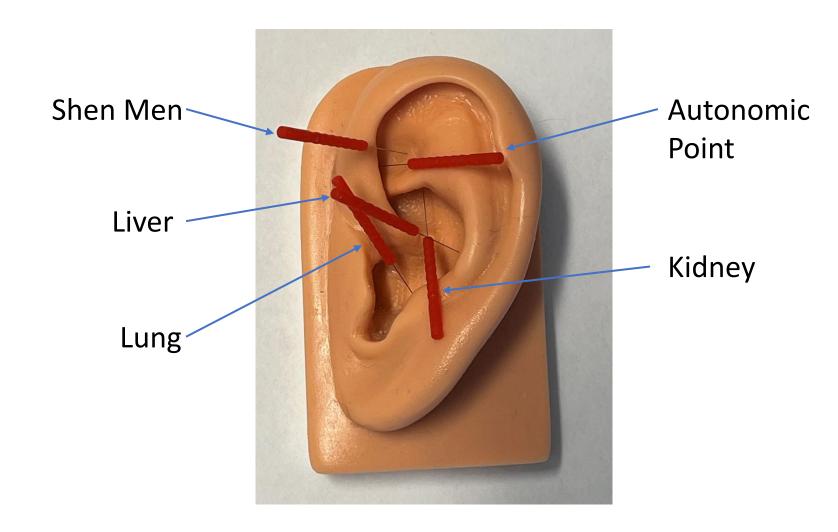
# Auricular Trauma Protocol (ATP)



# Battlefield Acupuncture (BFA)



### National Acupuncture Detox Association (NADA)



## More to come!







# AcuDoc



#### References

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