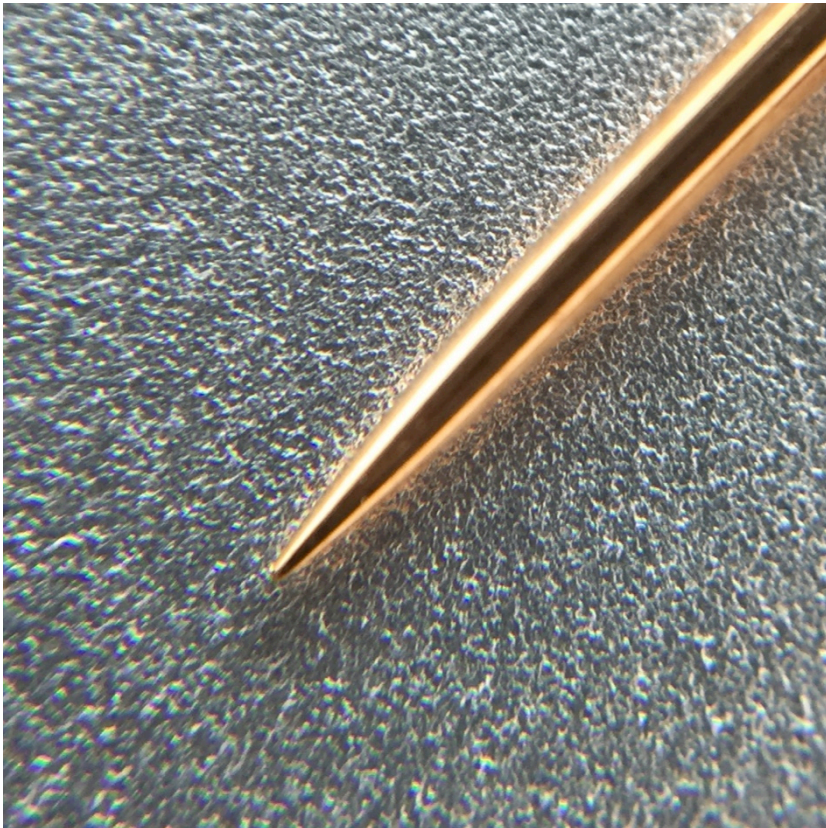


An approach to neck pain...

...the WMA approach to the
assessment and treatment of neck pain



Dr Mike Cummings MB ChB DipMedAc

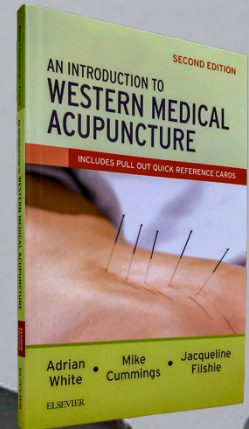
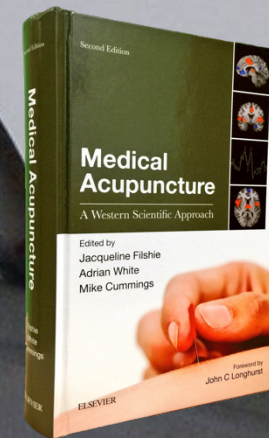
Musculoskeletal Physician
Medical Acupuncturist

Medical Director BMAS

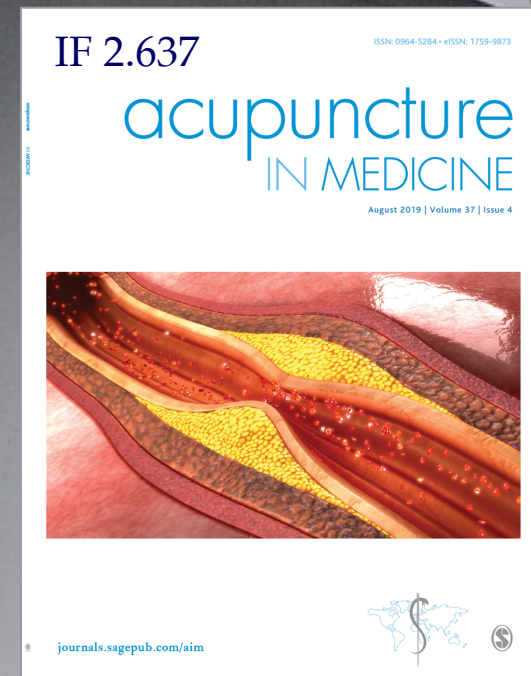
Associate Editor *Acupuncture in Medicine*
Honorary Clinical Specialist UCLH

www.medical-acupuncture.co.uk
<https://journals.sagepub.com/home/aim>

Disclosure – no conflict of interest
mike.cummings@btinternet.com
goo.gl/6XQeXv



Medicine (Leeds) 1987
Musculoskeletal Medicine
RAF Medical Officer 1989–96
Acupuncture 1993–
Director of Education BMAS 1997–
Editor *Acupuncture in Medicine* 1999–
Medical Director BMAS 2001–
Expert Adviser NICE CG88 2007–09





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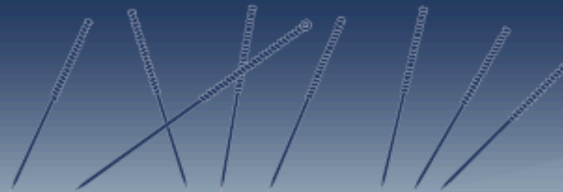
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Dr Mike Cummings

Mike is Medical Director of the British Medical Acupuncture Society (BMAS). This is a full time post that involves running the BMAS London Teaching Clinic (LTC), co-ordinating and lecturing on BMAS courses in Western medical acupuncture, acting as an associate editor for the Medline-listed journal *Acupuncture in Medicine*, and representing the BMAS at various academic and political meetings. Mike is an Honorary Clinical Specialist at the Royal London Hospital for Integrated Medicine, which is part of the University College London Hospitals NHS Foundation Trust, where he supports acupuncture services.

His principal academic and clinical interest is musculoskeletal pain, and in particular, needling therapies in the treatment of myofascial pain syndromes.

After completing his medical degree at Leeds, and several hospital jobs in the north of England, Mike joined the Royal Air Force for a six and a half year short service commission as a medical officer. A substantial portion of the workload for a general duties medical officer (GDMO) in the RAF is musculoskeletal medicine. Mike came across acupuncture by accident whilst working as a GDMO. He followed his interest in musculoskeletal medicine and acupuncture on retiring from military service, and finally found himself occupied full time in the field of acupuncture.

Read Mike's profile in the Leeds University Medical School Alumni magazine from 2003.

Read a description of how Mike unexpectedly got into acupuncture in Toby Murcott's book - *The Whole Story* from 2005.

Mike edits and writes on the [BMAS Blog](#).



Publications

1. Cummings TM. A computerised audit of acupuncture in two populations: civilian and forces. *Acupunct Med* 1996;14(1):37-39.
2. Filshie J, Cummings TM. Western medical acupuncture. In: Ernst E, White AR, editors. *Acupuncture - A Scientific Appraisal*. Oxford: Butterworth Heinemann, 1999:31-59.
3. Cummings M. Teasing Apart The Quality And Validity In Systematic Reviews Of Acupuncture. *Acupunct Med* 2000;18(2):104-7.
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81. Oliveira E Lemos M, Cummings M. An alternative approach to pudendal nerve stimulation. *Acupunct Med* 2018. doi:10.1136/acupmed-2018-011751
82. Hughes JG, Lewith G, MacPherson H, Witt CM, Cummings M, & Fisher P. Assessment of the quality of reporting in studies of acupuncture for patients with cancer using the STRICTA guidelines. *Acupunct Med* 2019 <https://doi.org/10.1136/acupmed-2017-011592>

Downloads

Piriformis Syndrome - a paper from the archives (reference 4 on the list above).

XIII International Physical Medicine & Rehabilitation conference, Oporto, 19-20 October 2017
Acupuncture for Physical Medicine & Rehabilitation - notes to accompany lecture.

XV Congreso Sociedad Española del Dolor, Palma de Mallorca, 24-26 May 2018
Acupuncture for Chronic Pain - notes to accompany lecture.

Electroacupuncture summary on a single white board, Lanzhou 2018.

The problem with sham, Madrid 2019.

Gramado 2019 slides: the needle; the neck; the back.

www.medacu.co.uk
www.medical-acupuncture.co.uk



goo.gl/6XQeXv

Conferences

Nordic Medical Acupuncture Congress programme, Copenhagen 2019.

European Congress for Integrative Medicine programme, Barcelona 2019.
ECIM Workshops.

Social media

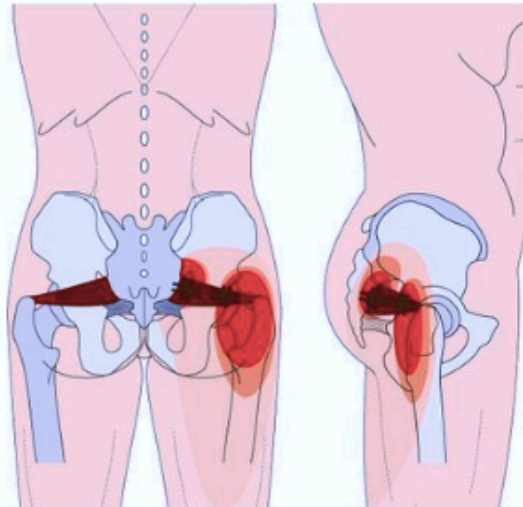
<p>Tweets by @drmike001</p>  <p>Mike Cummings @drmike001</p> <p>Atheroma 2019 bmas.blog/2019/06/19/ath...</p>	<p>Tweets by @Acupunct_Med</p>  <p>Acupunct Med @Acupunct_Med</p> <p>Effect of Mongolian warm acupuncture on the gene</p>
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Mike Cummings

@drmike001

Piriformis revisited bmas.blog/2019/05/23/pir...



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www.medacu.co.uk

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Academic Associates

As part of its mission to promote acupuncture within healthcare the British Medical Acupuncture Society has chosen to make some of its resources available to acupuncture practitioners who are already members of another national acupuncture organisation or in a full time academic post, and who are not eligible to be members of the BMAS. This will permit use of specified BMAS resources to facilitate academic pursuits such as education, research or continuing professional development.

Academic Associateship offers:

- Full online access to *Acupuncture in Medicine* (impact factor 2.637)
- BMAS Points Resource
- Access to webcasts & CPD modules related to the BMAS Spring & Autumn Meetings
- Members rates at meetings

The cost is £36.00 per year. Proof of membership of a recognised acupuncture organisation must be submitted to support a request for academic associateship, and at each renewal.

To apply to become an Academic Associate please contact the BMAS Head Office on 01606 786782 or by email admin@thebmas.com

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The British Medical Acupuncture Society

Hello Michael Cummings | Log Out | Home > BMAS Points Resource > Head & posterior neck

Head & posterior neck

2A brief examination neck from BMAS

2C levator scapulae scalenes from BMAS

Please select an area on the image above to navigate to the individual needling points: GB21, GV14, GV20, Levator scapulae, Scalenus medius, Semispinalis, TE15, Trapezius



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An approach to neck pain...

Definition

Evidence based medicine – evidence based medicine is the conscientious, explicit, and judicious use of current best evidence in making decisions about the care of individual patients.

Sackett DL, Rosenberg WM, Gray JA, et al. *BMJ* 1996; 312(7023):71-72.

Editorial

Evidence based medicine: what it is and what it isn't

Evidence based medicine is the conscientious, explicit, and judicious use of current best evidence in making decisions about the care of individual patients.

The practice of evidence based medicine means integrating **individual clinical expertise** with the best available external clinical evidence from systematic research.

By best available external clinical evidence we mean clinically relevant research, often from the basic sciences of medicine...

Good doctors use both individual clinical expertise and the best available external evidence, and neither alone is enough.

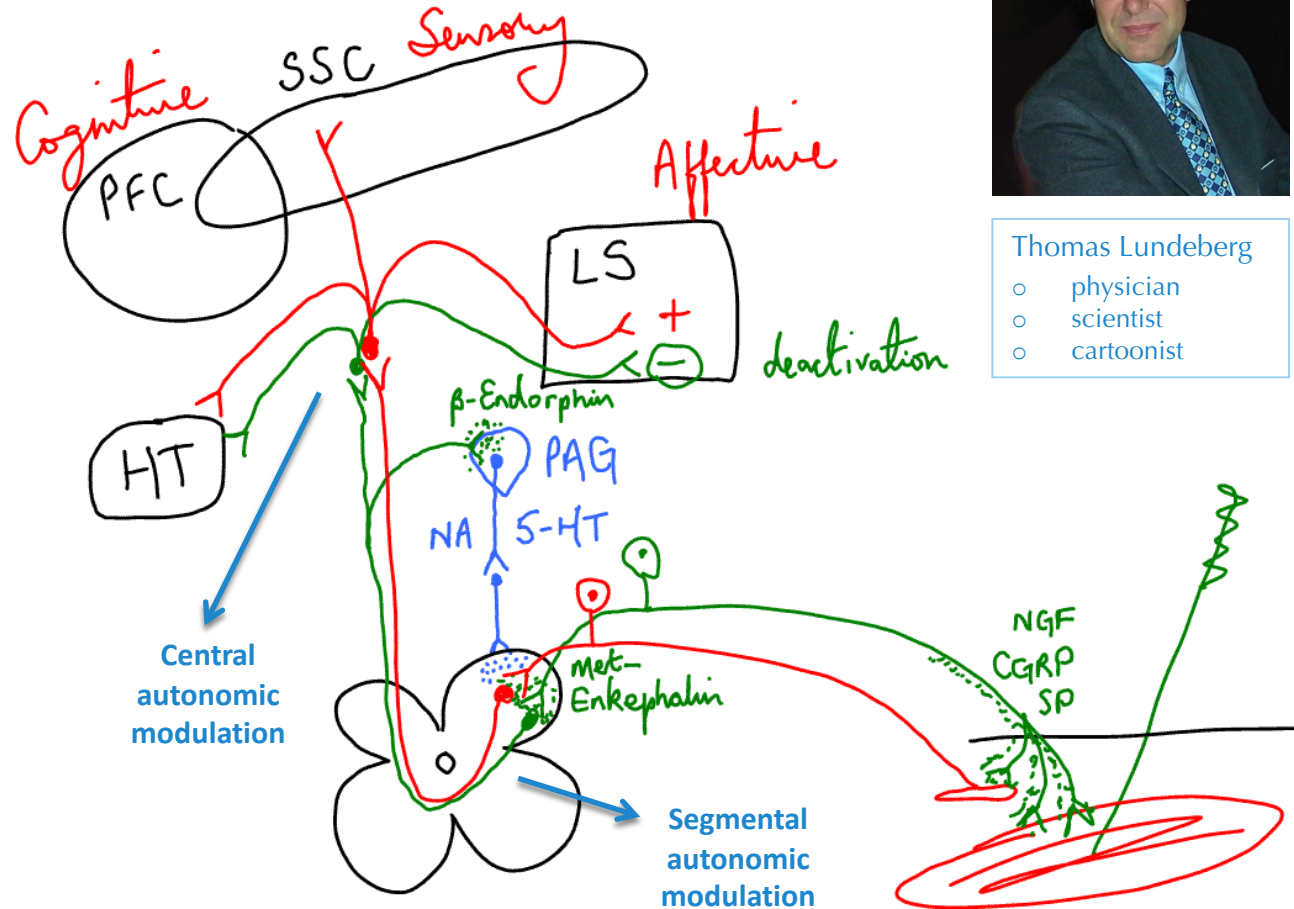
Without clinical expertise, practice risks becoming tyrannised by evidence...

Evidence based medicine is not restricted to randomised trials and meta-analyses.

An approach to neck pain...

Physiology

- Local effects
- Segmental
- General



Thomas Lundeberg

- physician
- scientist
- cartoonist

An approach to neck pain...

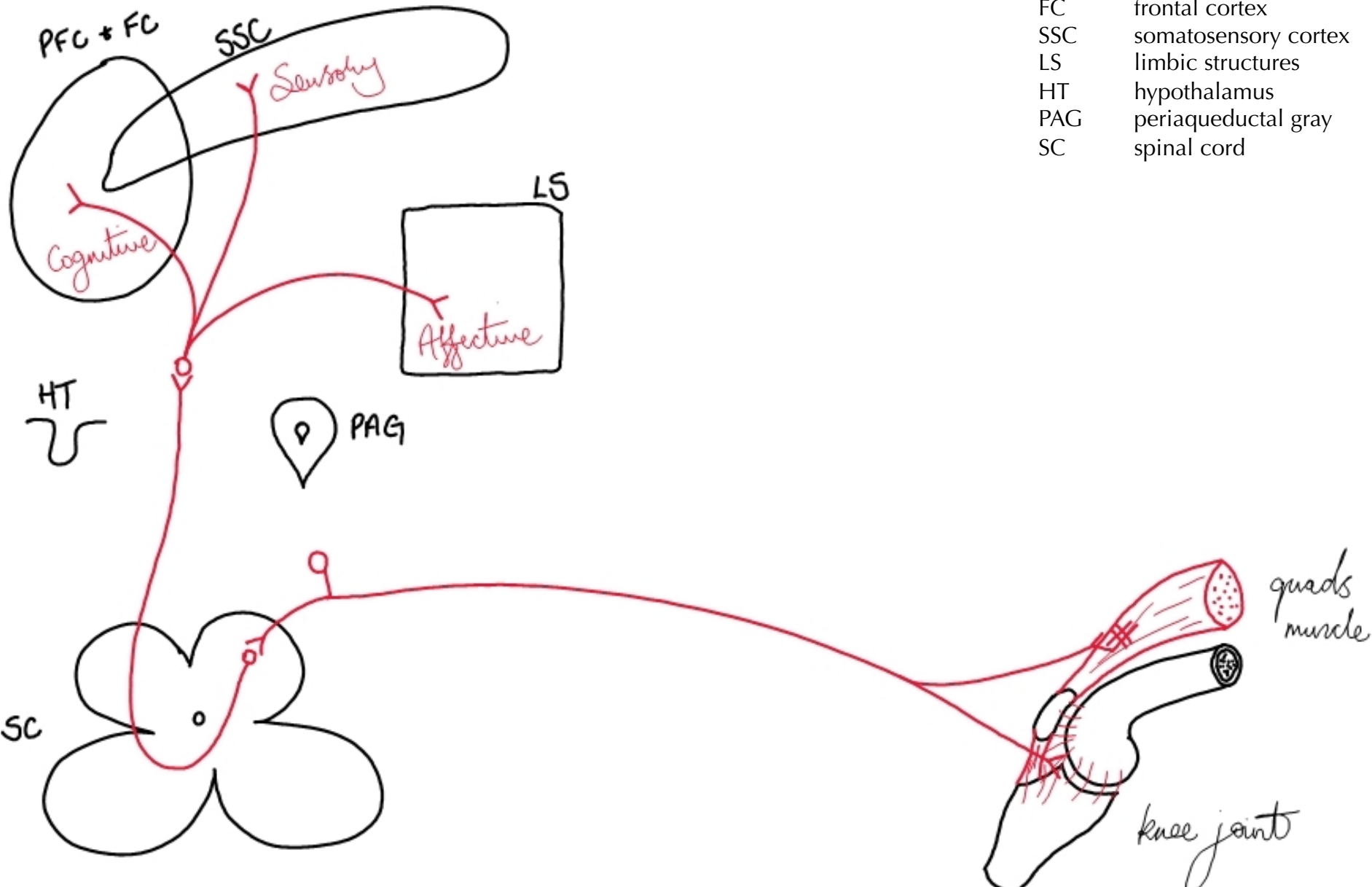
Assessment of (presumed) musculoskeletal pain

- History
 - ✧ said to contribute about 90% to the diagnosis
 - ✧ Red flags
- Examination (Look, Feel, Move)
 - ✧ focused on mechanical loading of tissues to provoke patient recognition of symptoms
 - the fine filiform needle provides the best tissue specific loading
- Special investigations (mostly imaging)
 - ✧ confirms clinical impression, but rarely reliable without a good clinical assessment
- Treatment response
 - ✧ may take up to 3 cycles of treatment and response to reach a conclusion in tricky cases

PAIN MECHANISMS

Drawings by Mike Cummings
copied in the style of Tom Lundberg

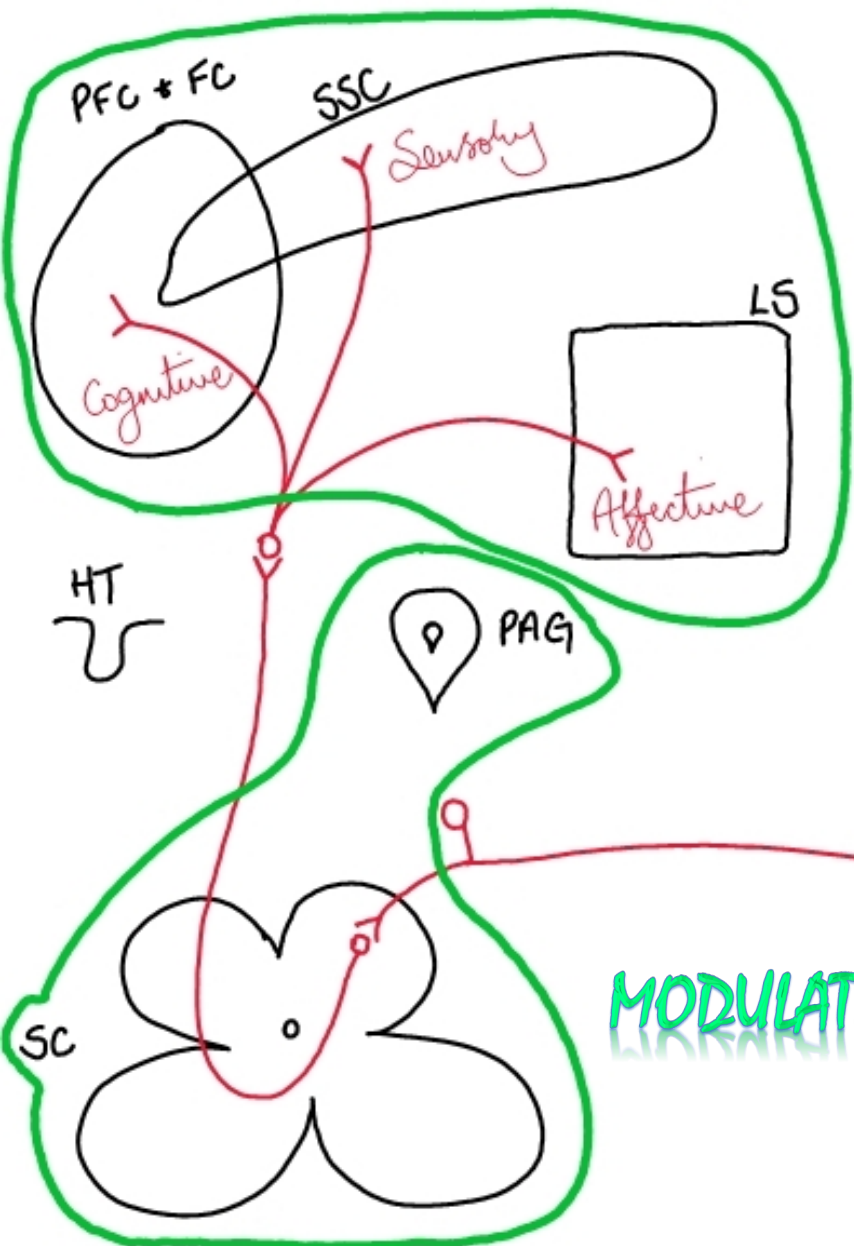
- PFC prefrontal cortex
- FC frontal cortex
- SSC somatosensory cortex
- LS limbic structures
- HT hypothalamus
- PAG periaqueductal gray
- SC spinal cord



PAIN MECHANISMS

Drawings by Mike Cummings
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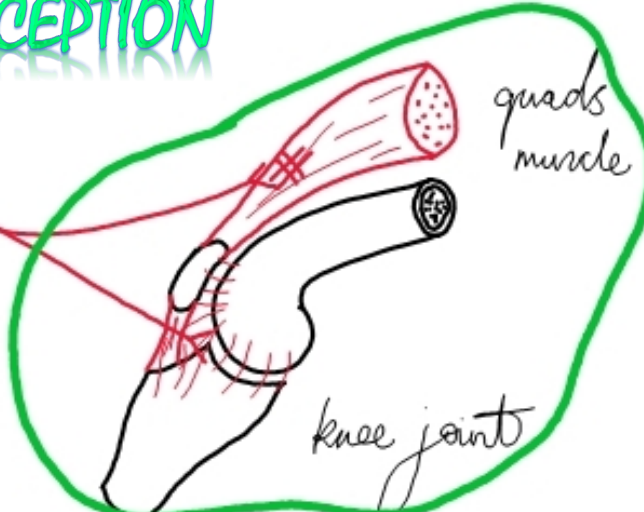
- PFC prefrontal cortex
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- SC spinal cord



PERCEPTION

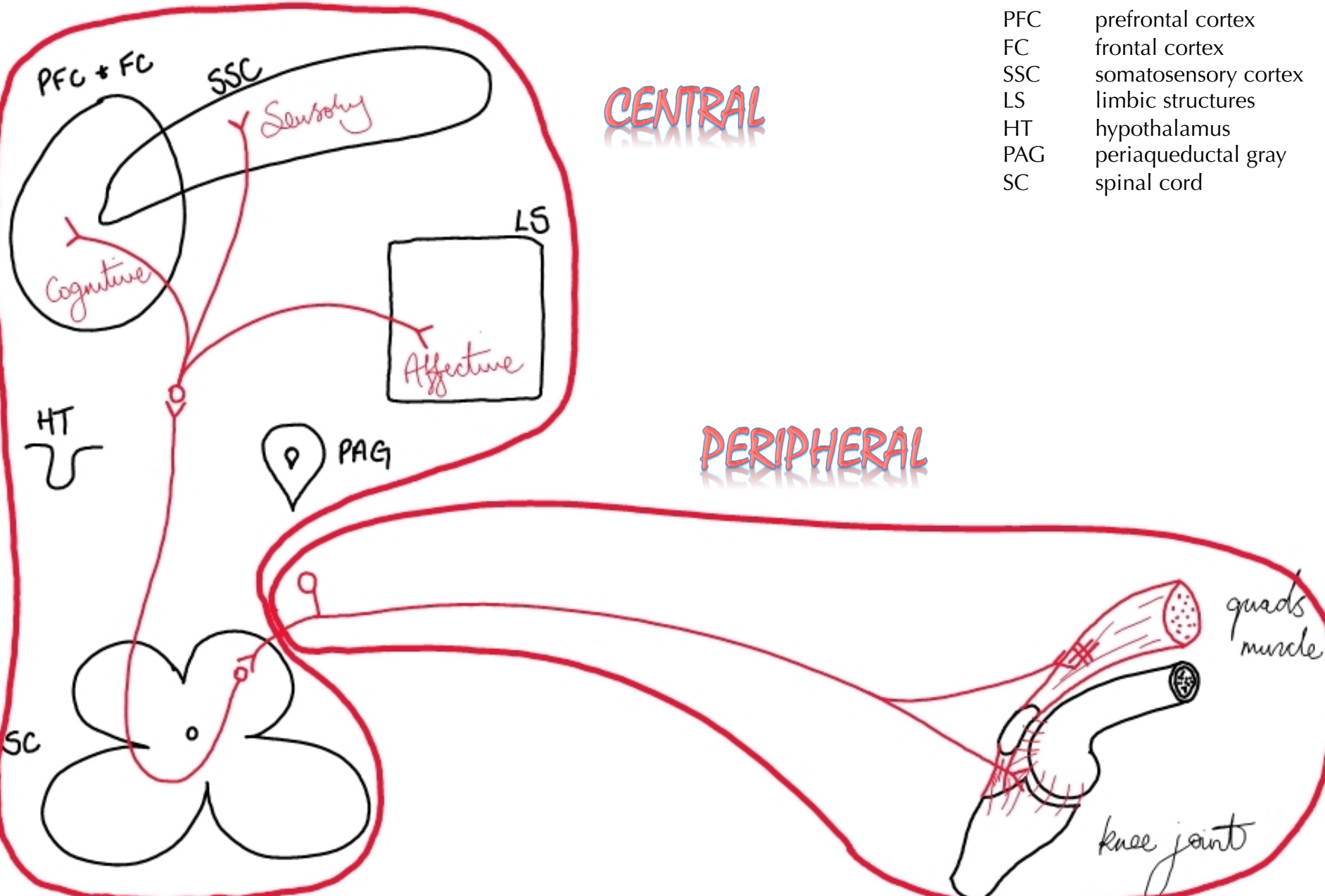
NOCICEPTION

MODULATION



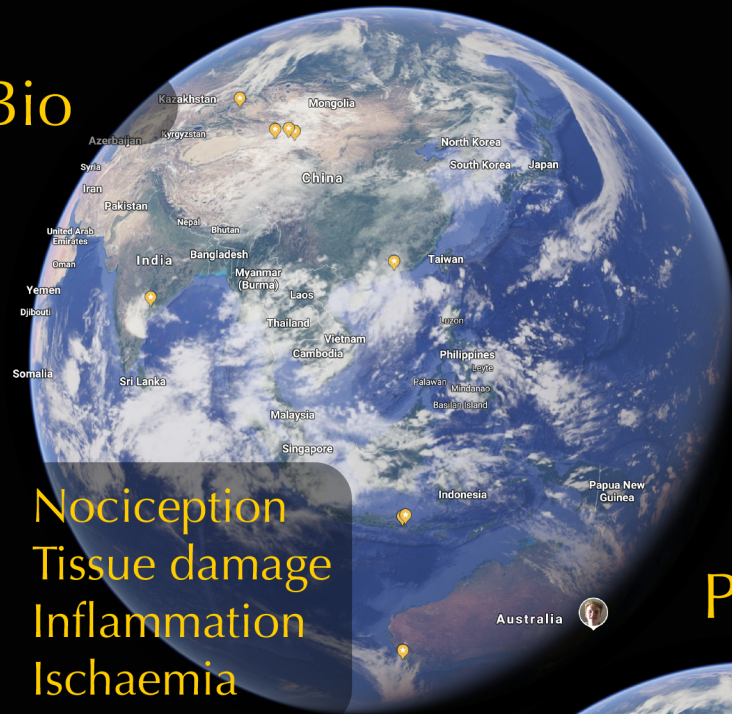
PAIN MECHANISMS

Drawings by Mike Cummings
copied in the style of Tom Lundberg



- PFC prefrontal cortex
- FC frontal cortex
- SSC somatosensory cortex
- LS limbic structures
- HT hypothalamus
- PAG periaqueductal gray
- SC spinal cord

Bio



Psycho



Pain



Social

An approach to neck pain...

Assessment of (presumed) musculoskeletal pain

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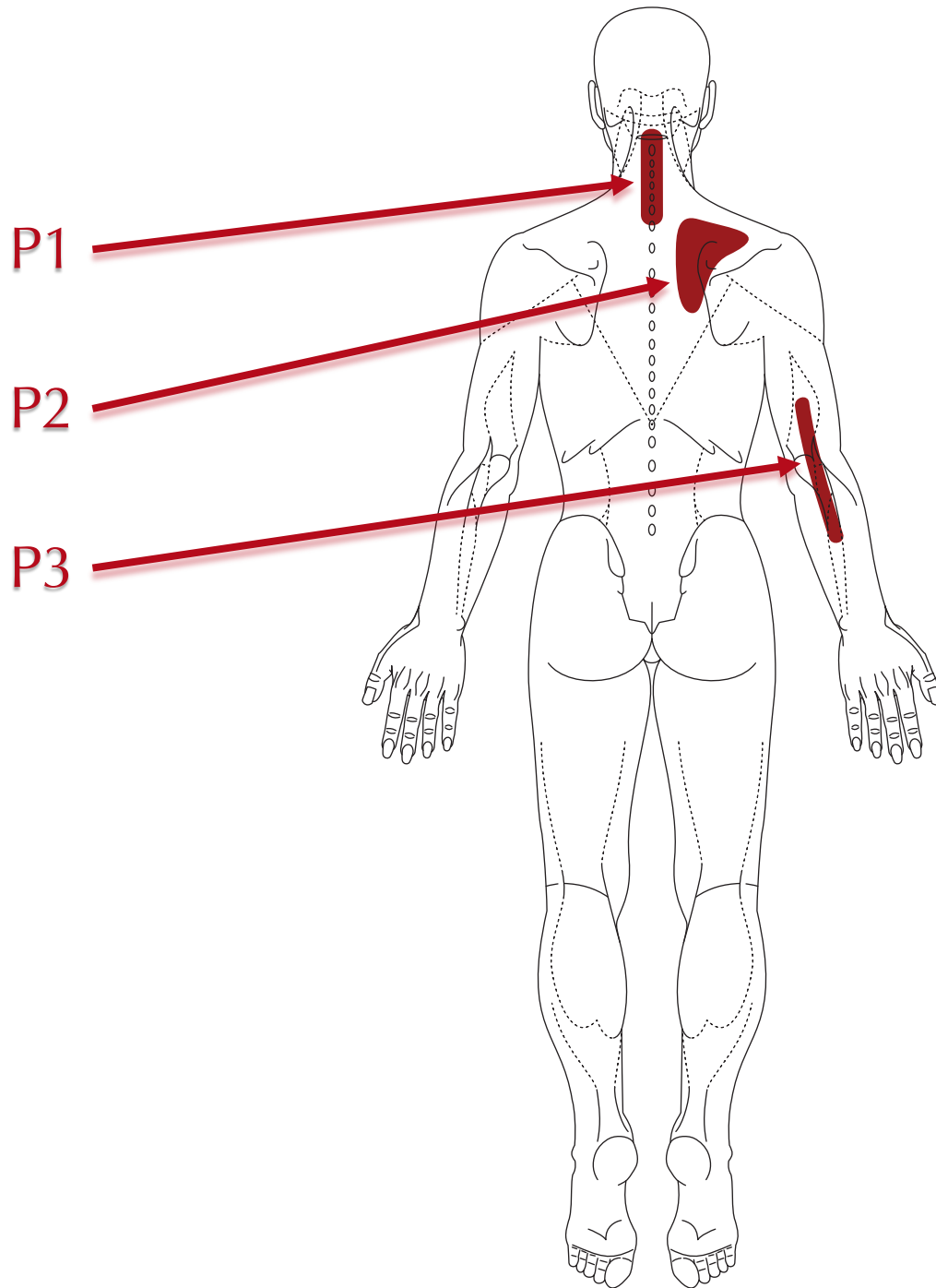
An approach to neck pain...

Assessment of (presumed) musculoskeletal pain

○ History

✧ Pain history

- Site
 - ★ central vs lateralized
 - ★ deep vs skin level
- Character
- Radiation
- Onset
- Severity
- Duration
- Special times of occurrence
- Aggravating factors
- Relieving factors
- Associated symptoms



P1 disc
spondylosis
vertebral body

P2 facet
muscle
lung or pleura

P3 facet / foraminal
nerve root
muscle
(cardiac)

An approach to neck pain...

Assessment of (presumed) musculoskeletal pain

- History
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Mechanical loading of tissues

Examination

- Observation
 - ✧ Weight bearing activity may result in obvious pain
- Tissue loading
 - ✧ Stretch
 - ✧ Loading via weight distribution or position
 - ✧ Loading via resisted contraction of muscle
 - ✧ Loading via bony impingement
 - ✧ Loading via palpation of tenderness
 - ✧ Loading with a filiform needle

Mechanical loading of tissues

Examination of the back

- Observation
 - ✧ Weight bearing activity may result in obvious pain
- Tissue loading
 - ✧ Stretch – provocation during assessment of RoM
 - ✧ Loading via weight distribution or position – RoM
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 - ✧ Loading with a filiform needle – TrPs, facets, ligaments

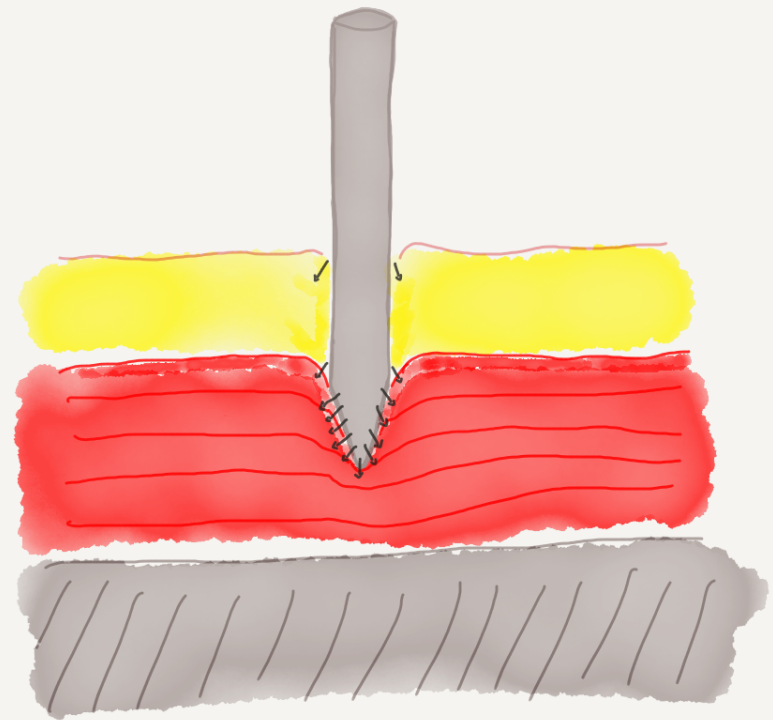
Mechanical loading of tissues

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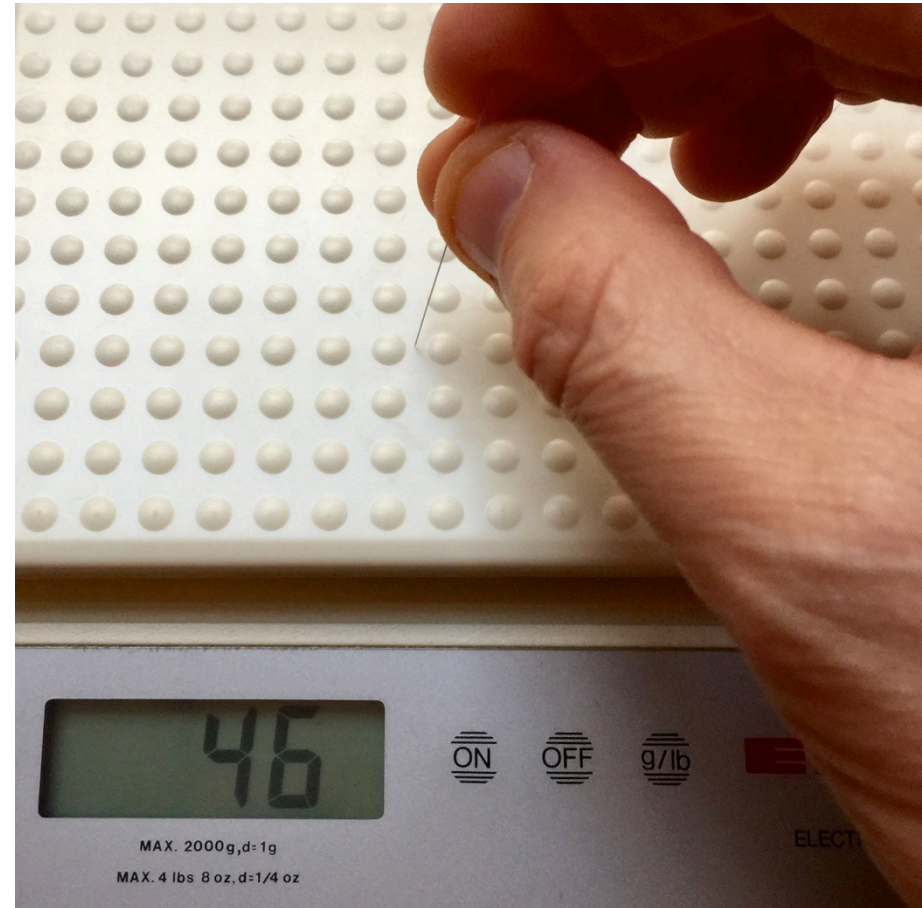
How do we apply loading

...with our fingers and with a needle



How much pressure do we apply

...with our fingers versus a needle



The acupuncture needle...

Average pressures compared...

Digit	Dimensions	Weight applied	Average pressure
Middle fingertip (gentle)	100mm ²	150g	0.15kg/cm ²
Middle fingertip (firm)	100mm ²	1-2kg	1-2kg/cm ²
Thumb pad (maximum)	200mm ²	5-10kg	2-5kg/cm ²

Needle	Dimensions	Surface area of cone tip	Weight before bending	Average pressure at tip
Lilac	0.25x30mm	0.2mm ²	30-50g	15-25kg/cm ²

Needle	Dimensions	Surface area of flat tip	Weight before bending	Average pressure at tip
Lilac	0.25x30mm	0.05mm ²	25-50g	50-100kg/cm ²

1/500 to 1/4000

1/50 to 1/400

10x to 100x

low diffuse pressure
not tissue specific



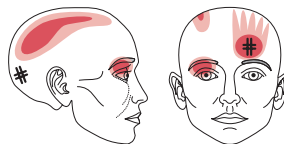
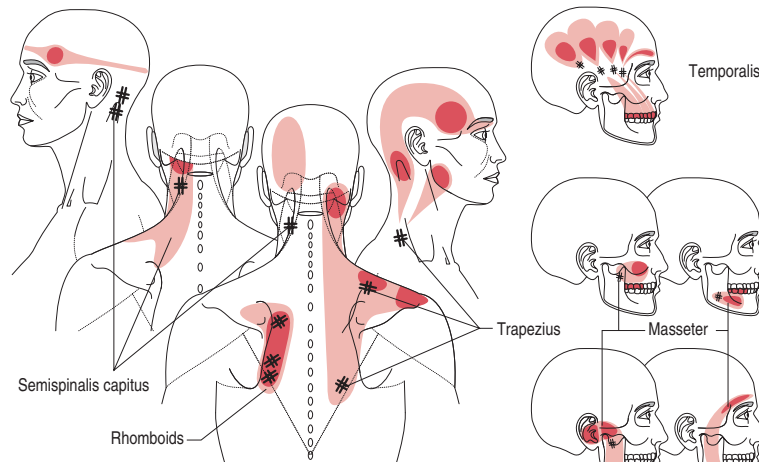
high localised pressure
tissue specific

Mechanical loading of tissues

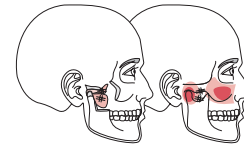
Examination of the back

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 - ✧ Loading with a filiform needle – TrPs, facets, ligaments
 - Is this the pain you are complaining of?
 - Or is it a different pain in the same place?

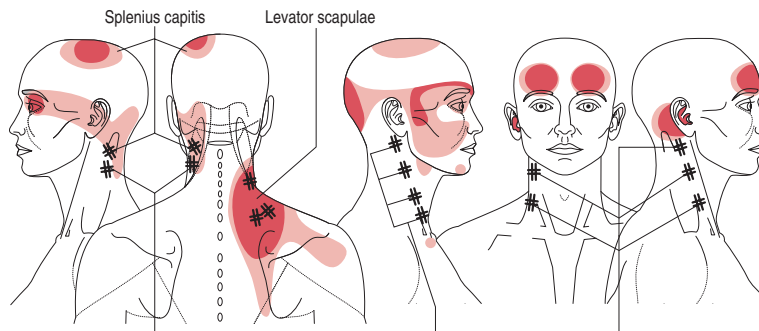
TrP pain referral patterns



Occipitalis and frontalis



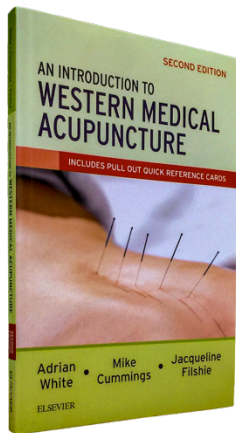
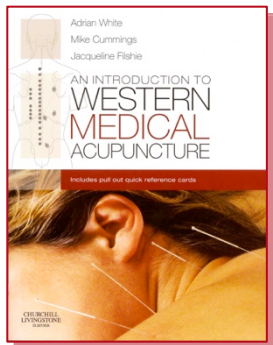
Lateral pterygoid



Splenius cervicis

Sternocleidomastoid (sternal head)

Sternocleidomastoid (clavicular head)



T3

Shoulder

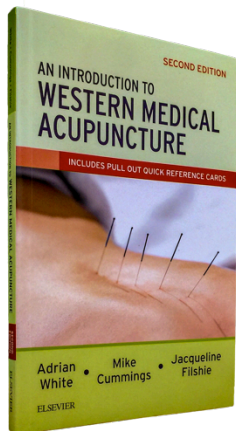
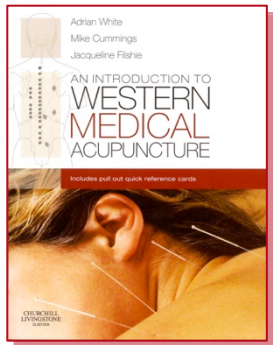
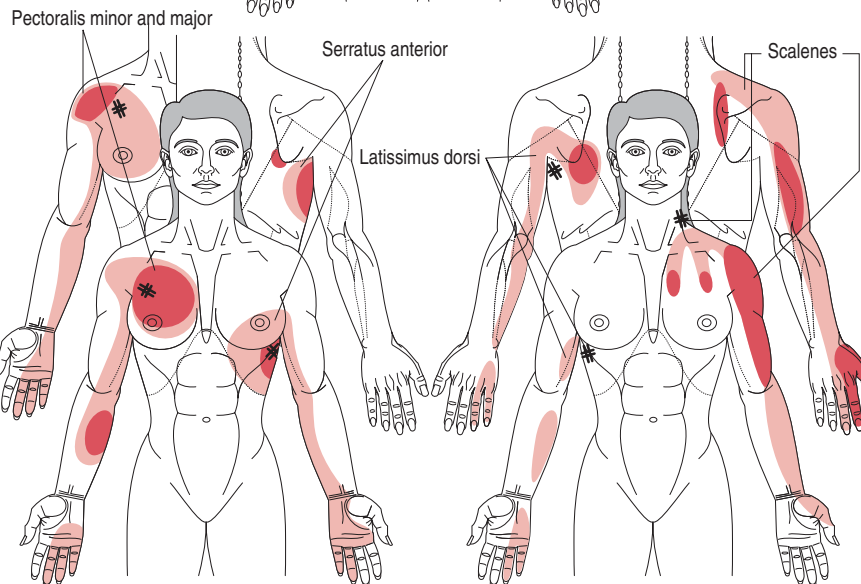
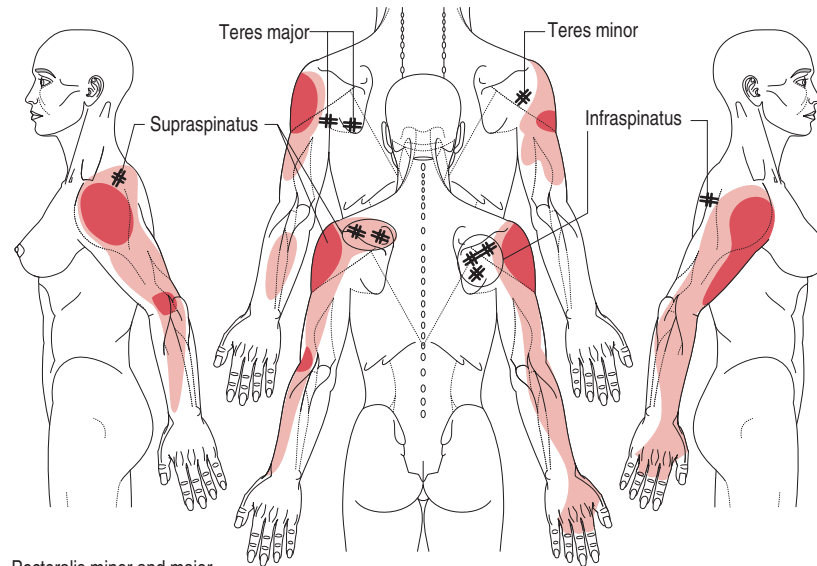
Upper trapezius

C7

C3

<https://www.facebook.com/on.bmas.52/videos>

TrP pain referral patterns

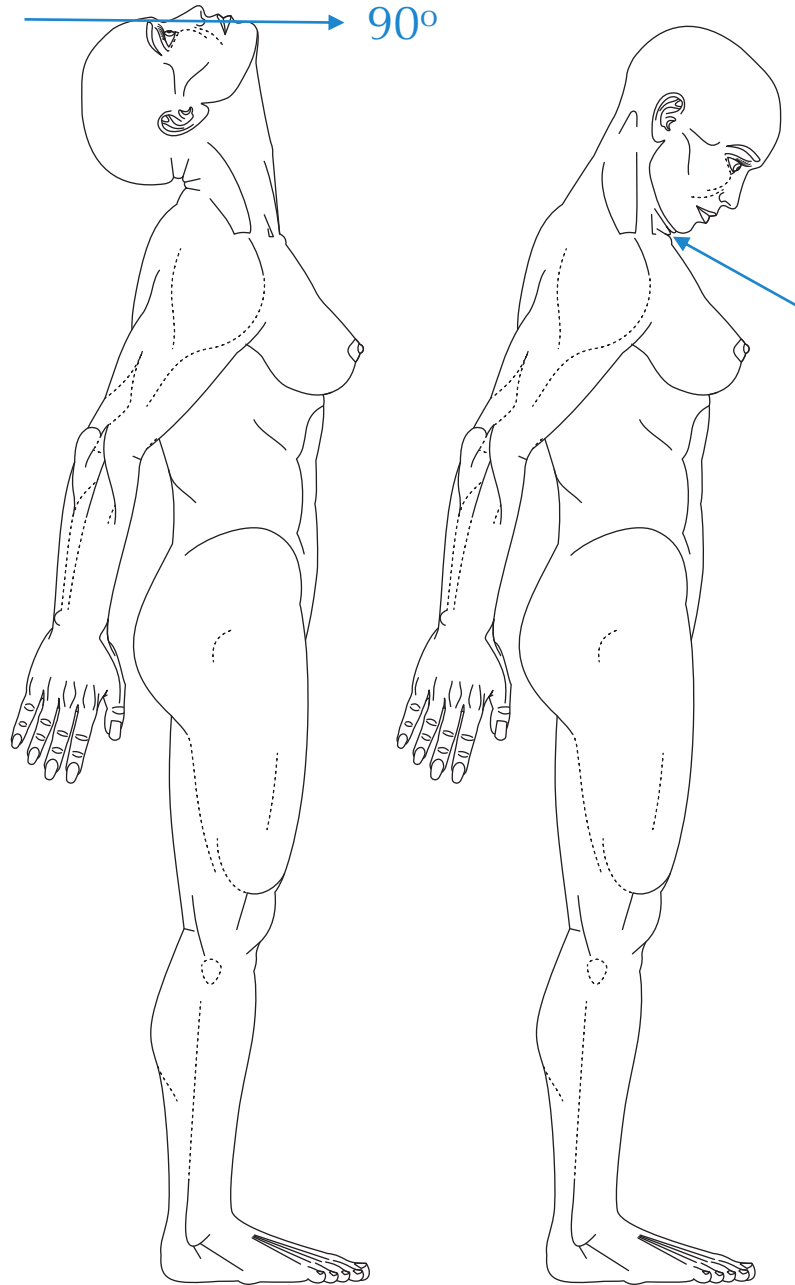


Mechanical loading of tissues

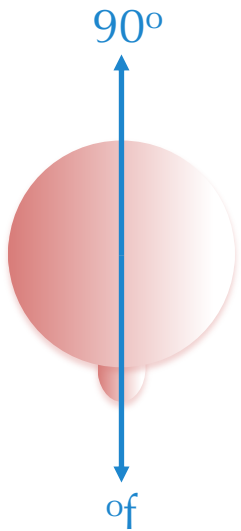
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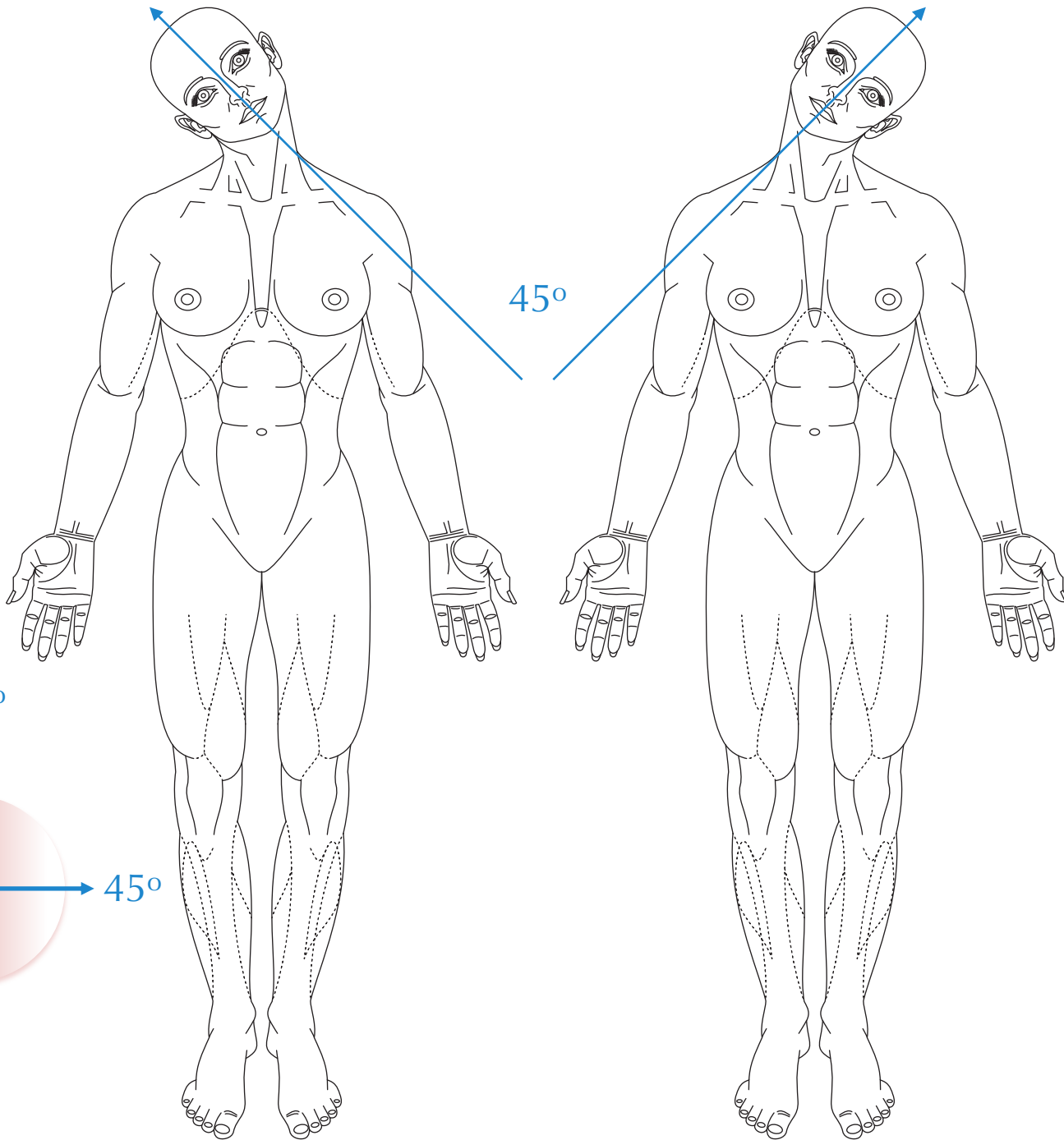
RoM



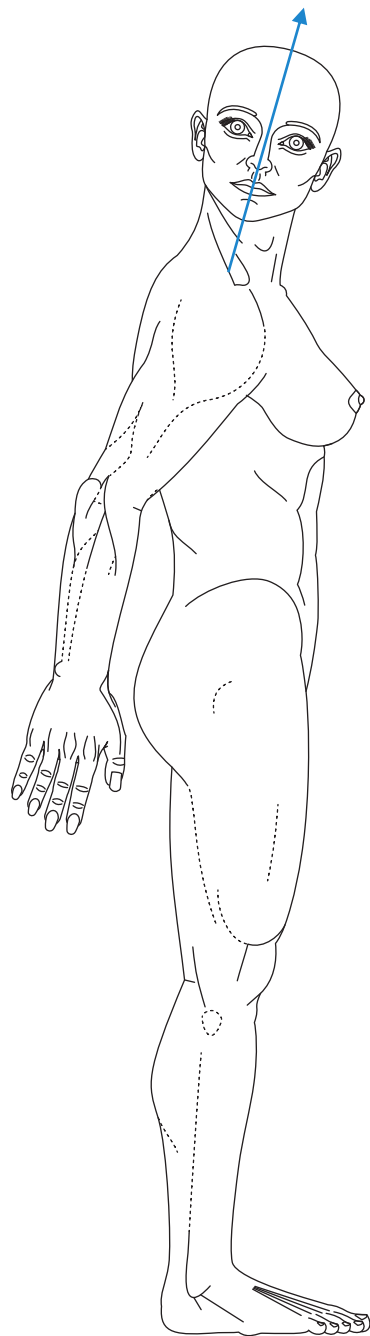
how many
fingers fit in the
gap



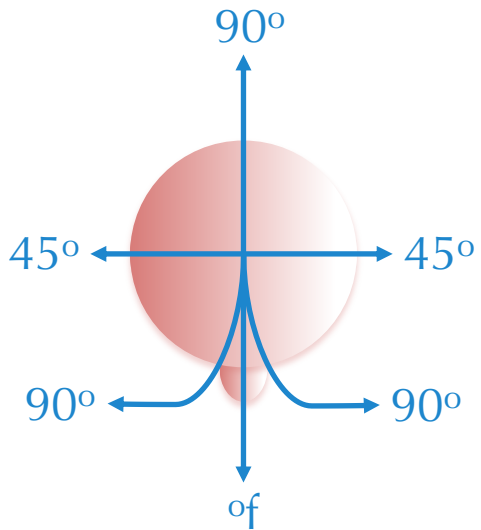
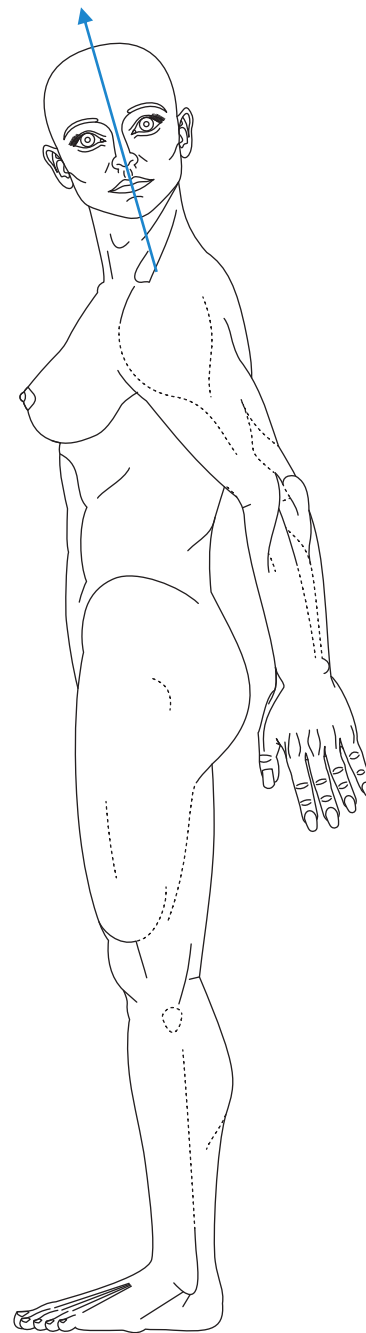
RoM



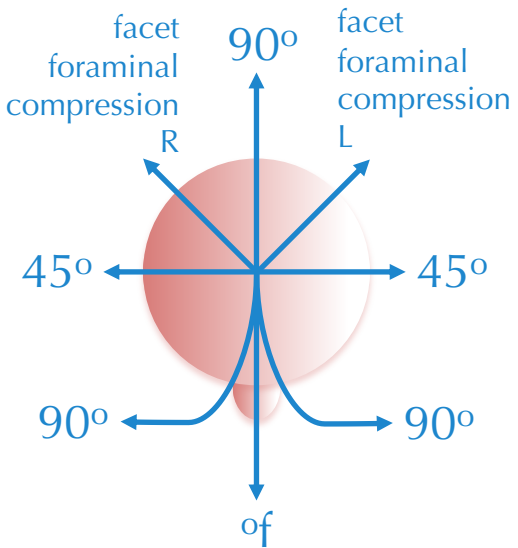
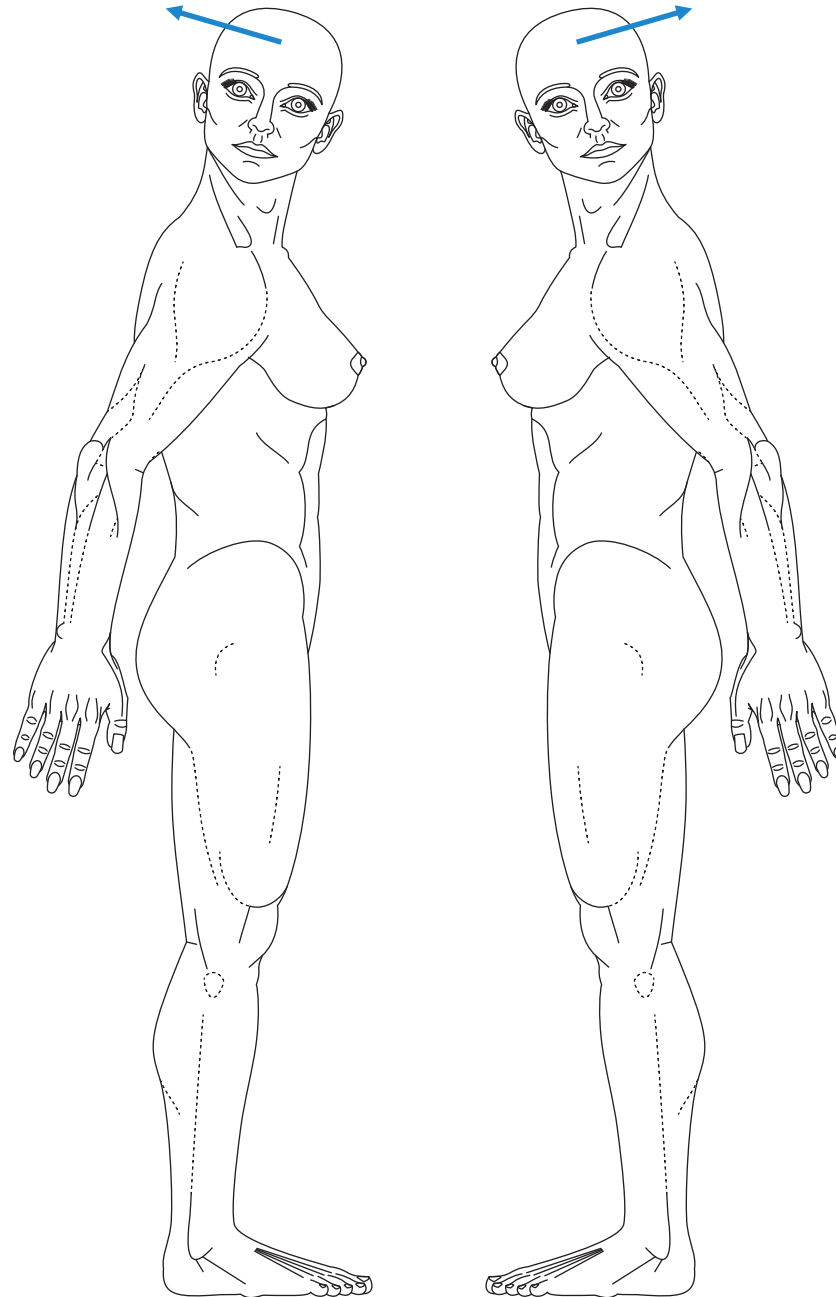
RoM



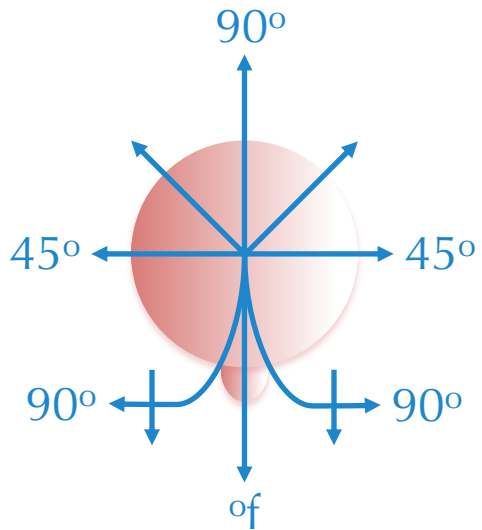
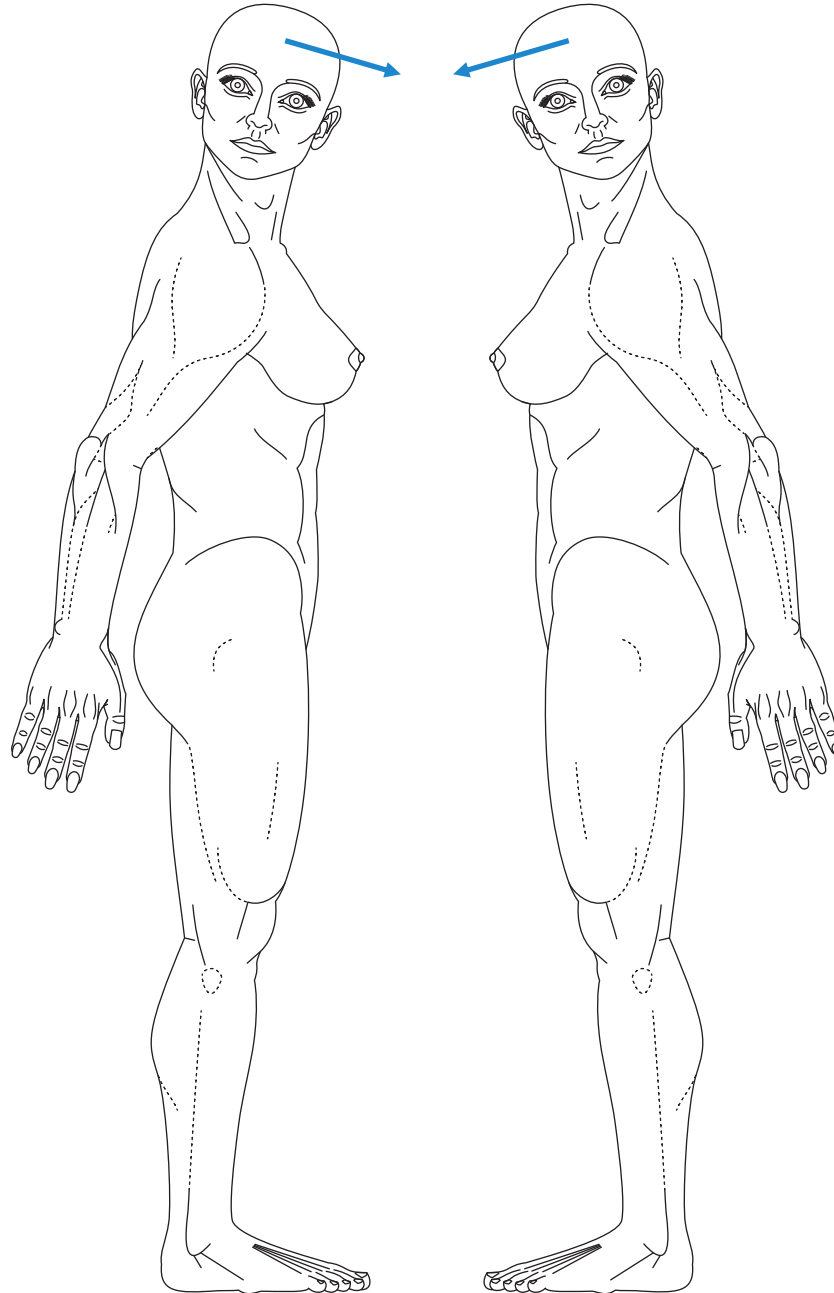
90°



RoM



RoM

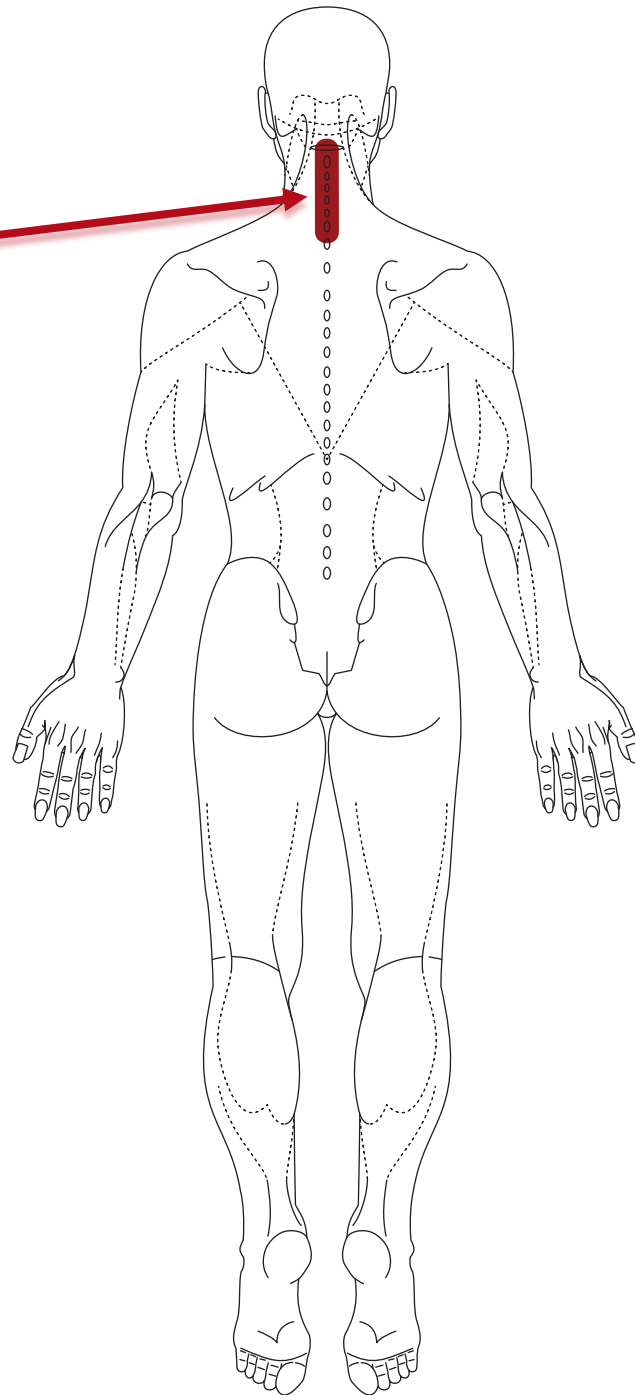


O/E

P1

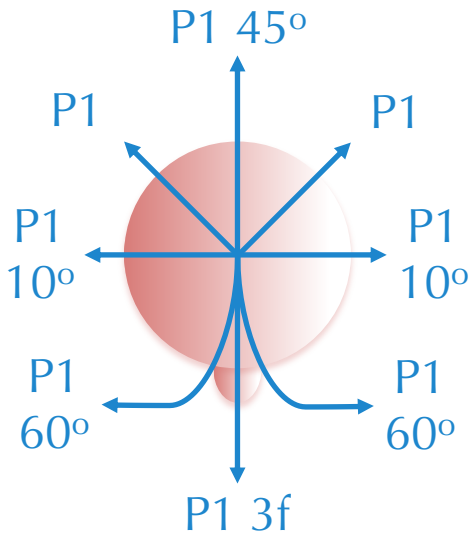


P1 disc
spondylosis
vertebral body

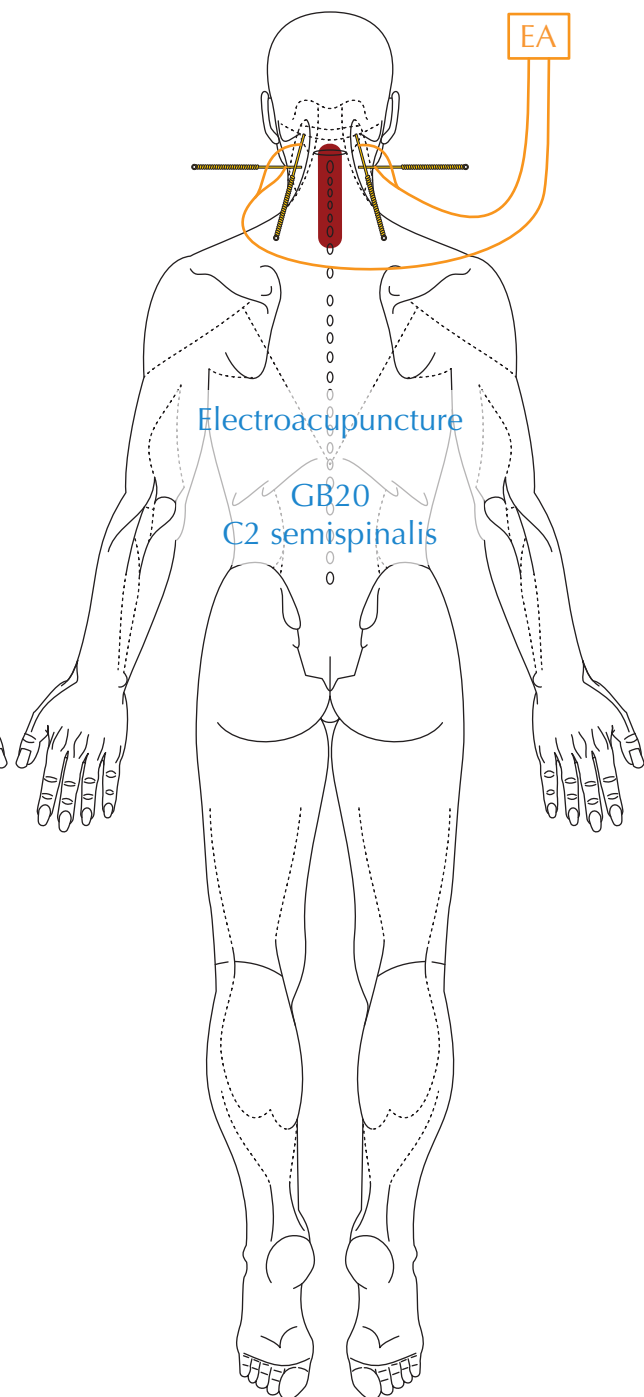
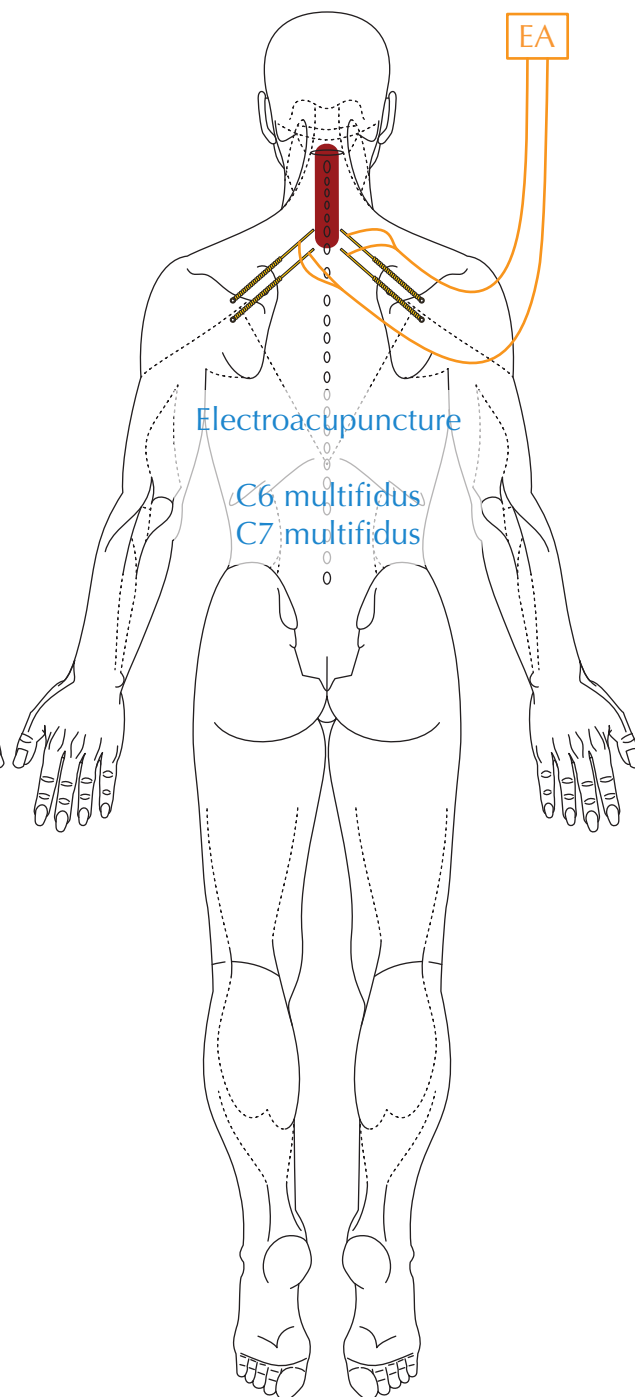
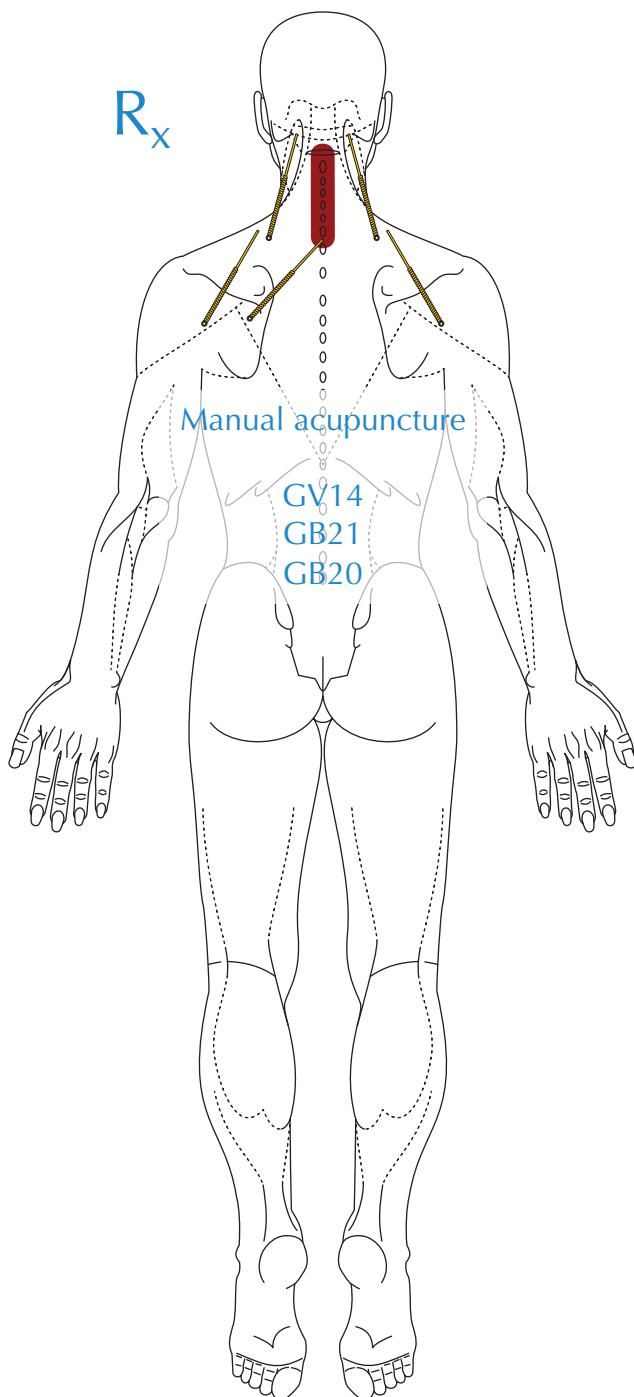


Needling assessment

- No
- Do not attempt direct needling of disc or vertebral body

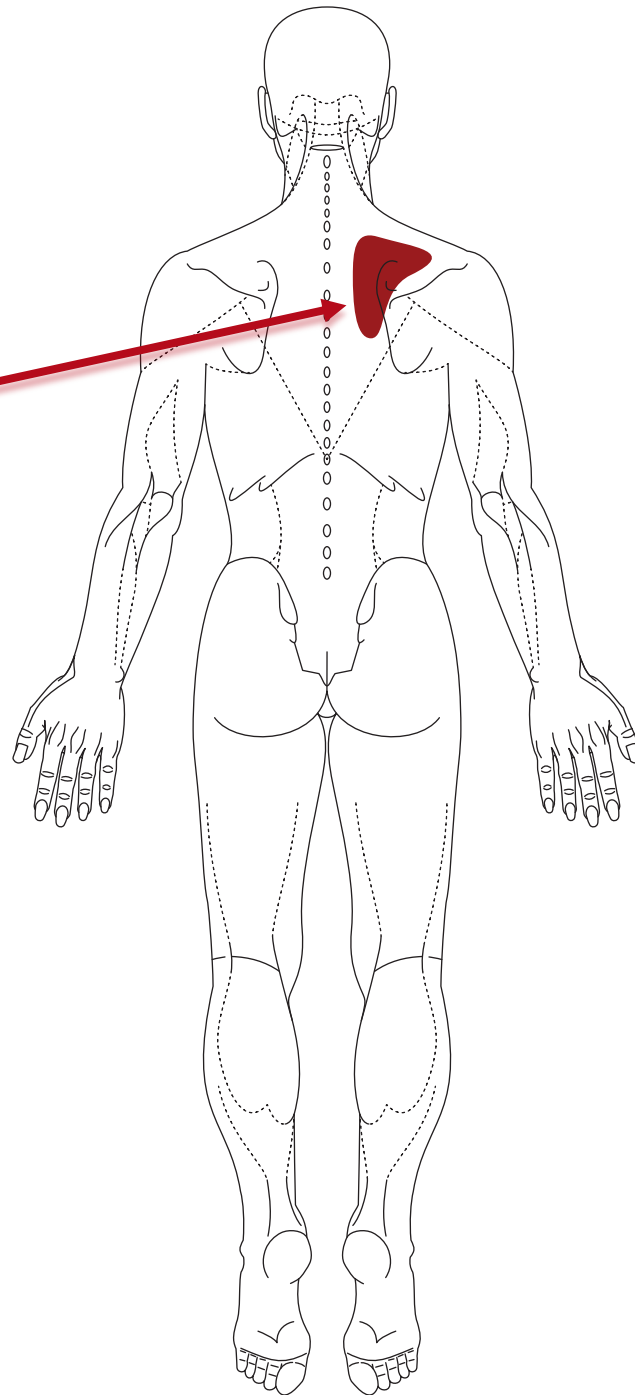
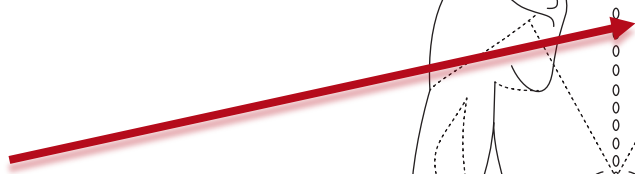


R_x



O/E

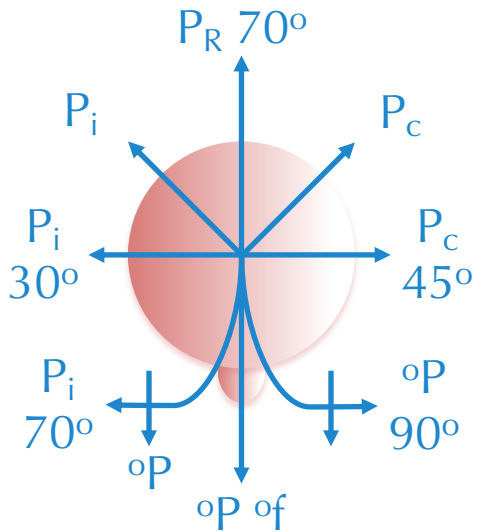
P2



P2 facet pattern

Needling assessment

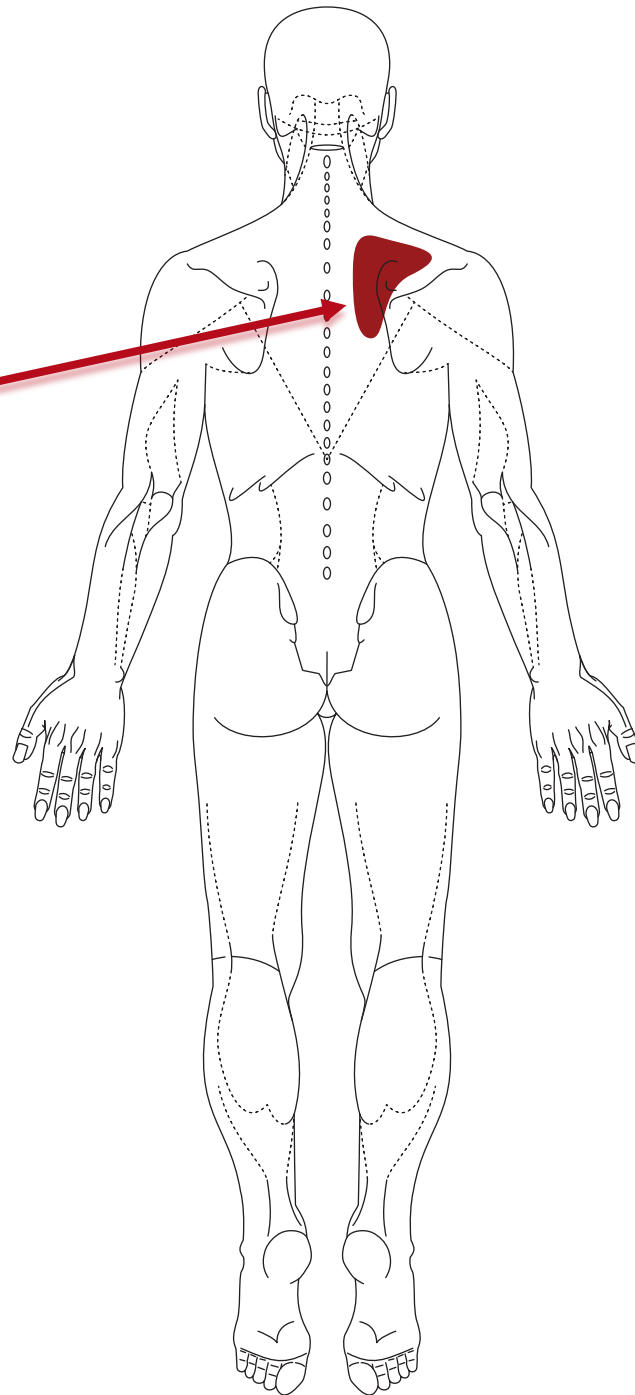
➤ Recognised pain from needling onto facet joint margins



oP no pain
 P_i ipsilateral pain
 P_C contralateral pain

O/E

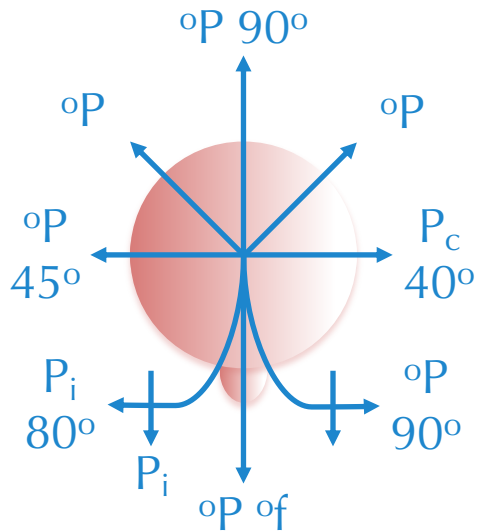
P2



P2 muscle pattern

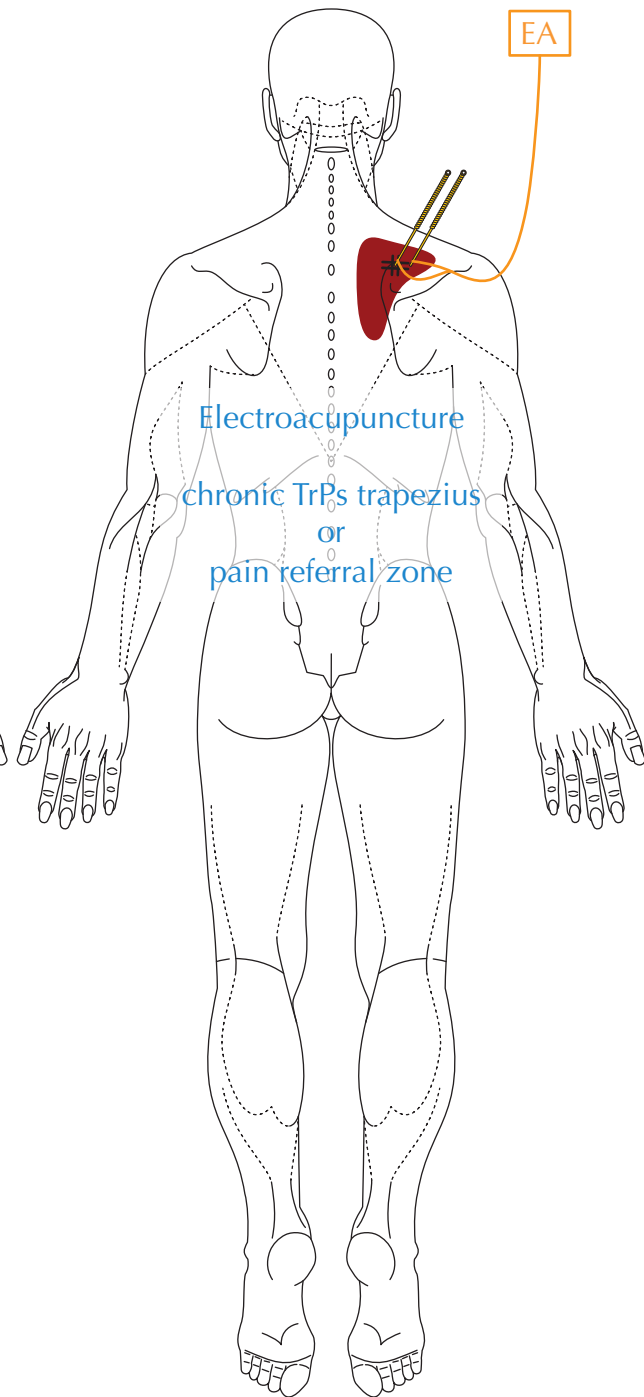
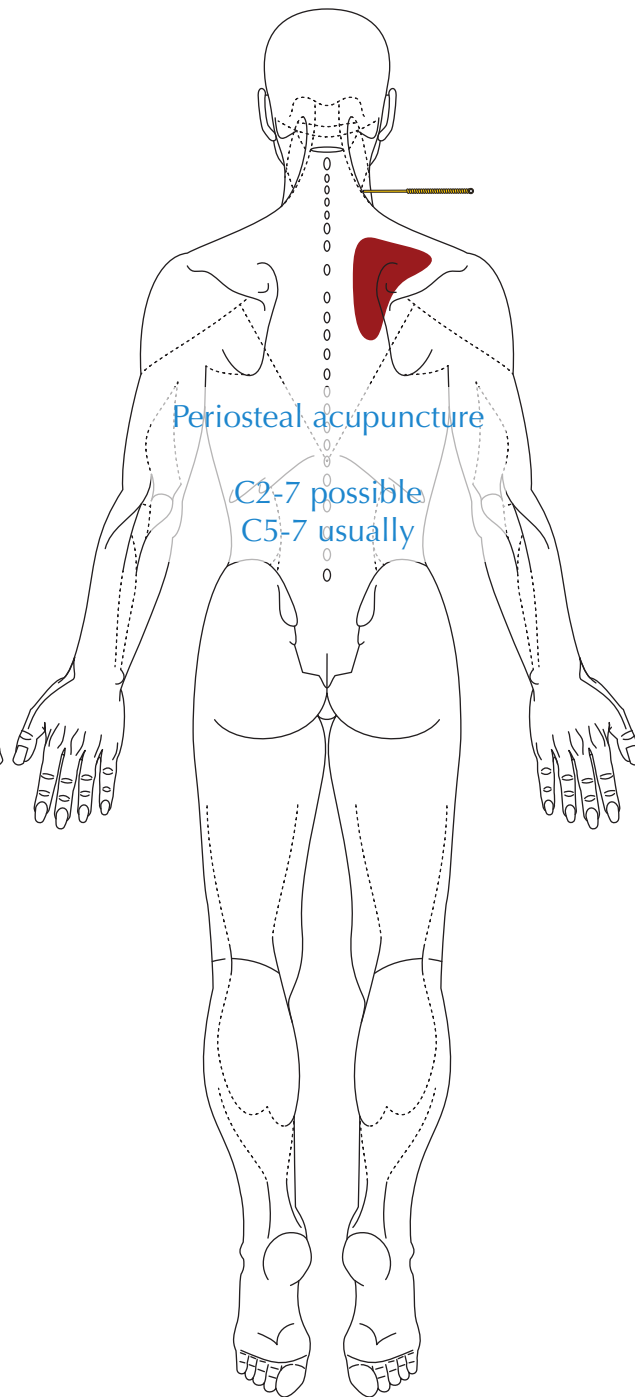
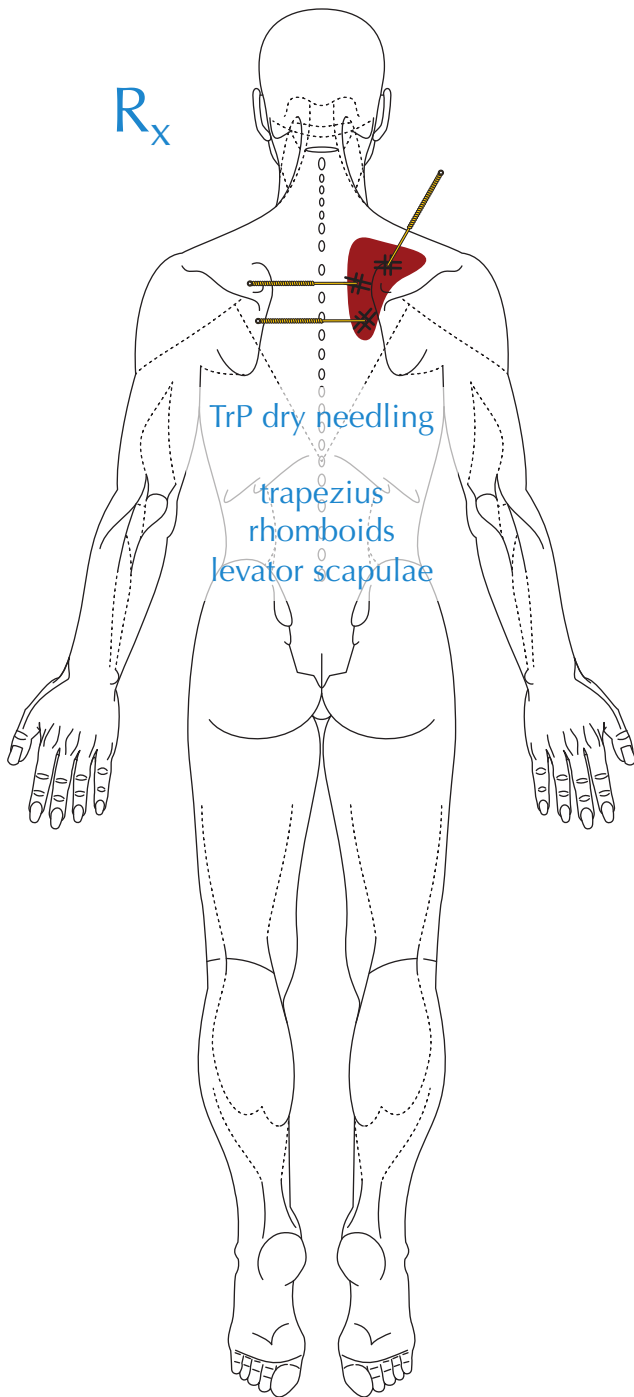
Needling assessment

➤ Recognised pain from needling TrP

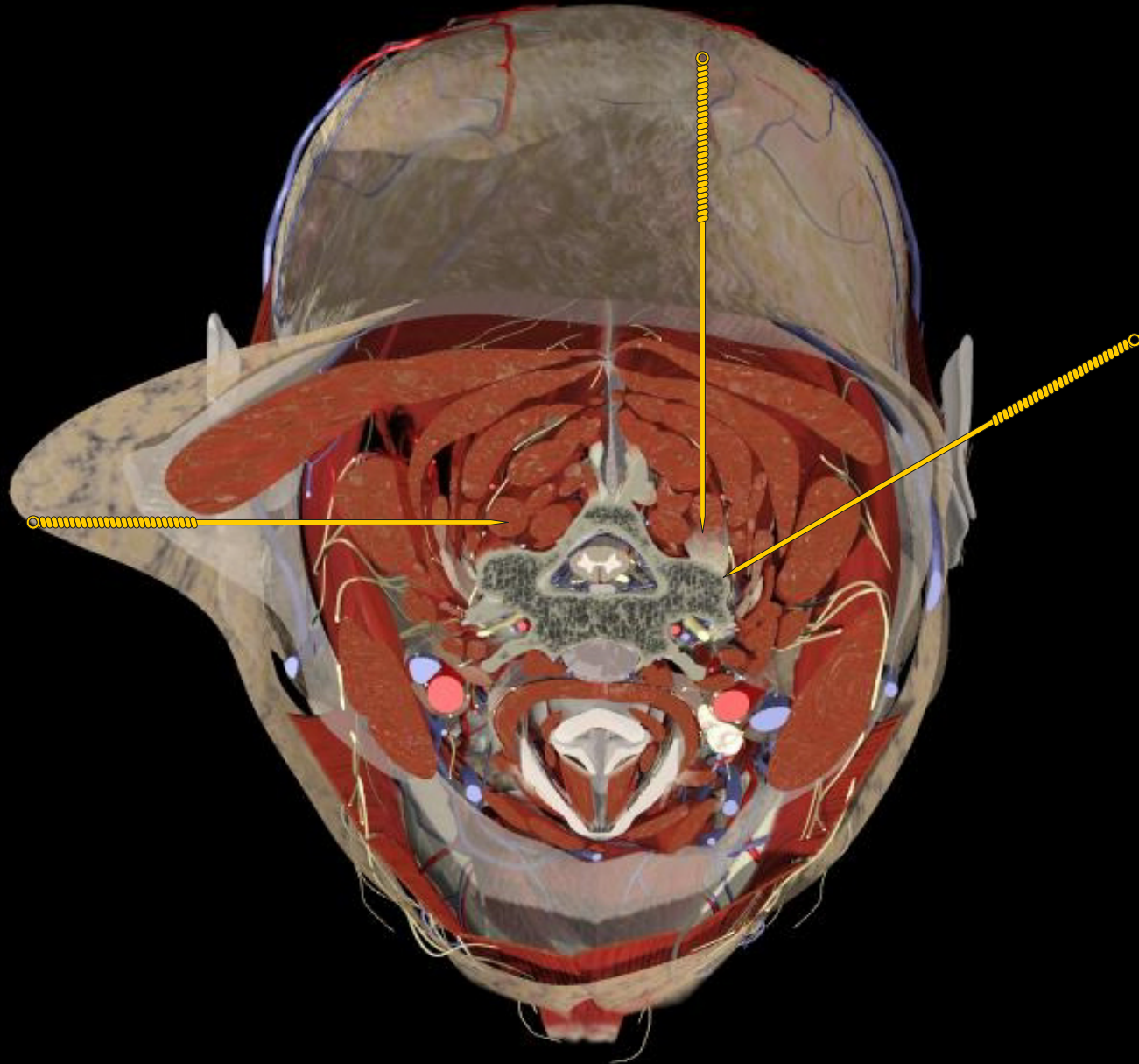


°P no pain
P_i ipsilateral pain
P_c contralateral pain

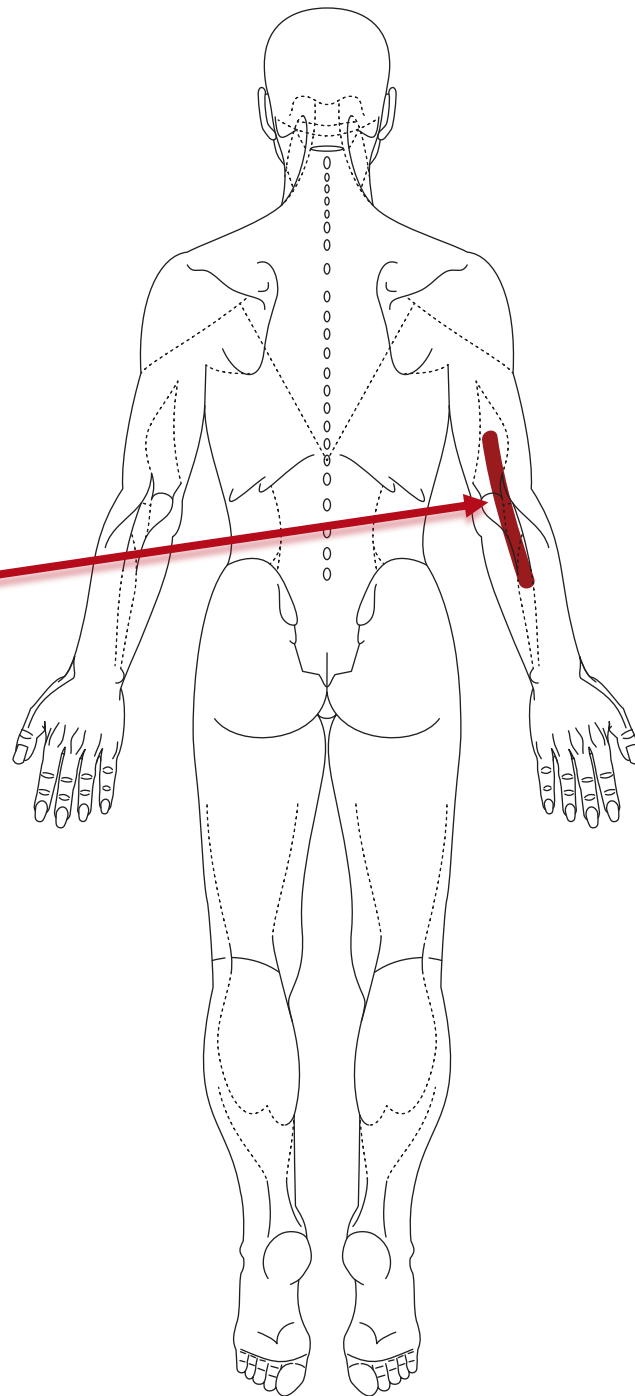
R_x



R_x



O/E

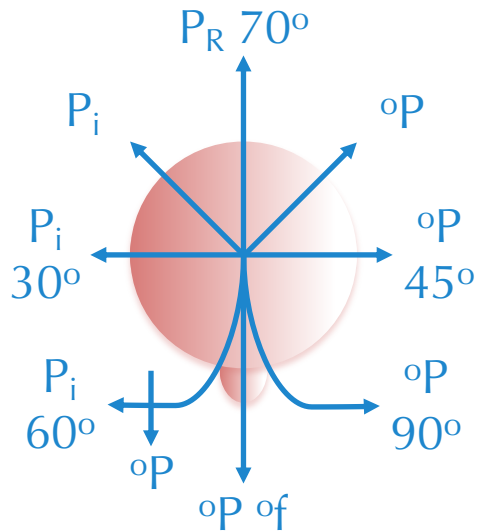


P3 facet / foraminal nerve root muscle (cardiac)

Needling assessment

➤ Recognised pain from needling onto facet joint margins

oP no pain
P_i ipsilateral pain
P_c contralateral pain



R_x

Periosteal

Myofascial

EA

Periosteal acupuncture

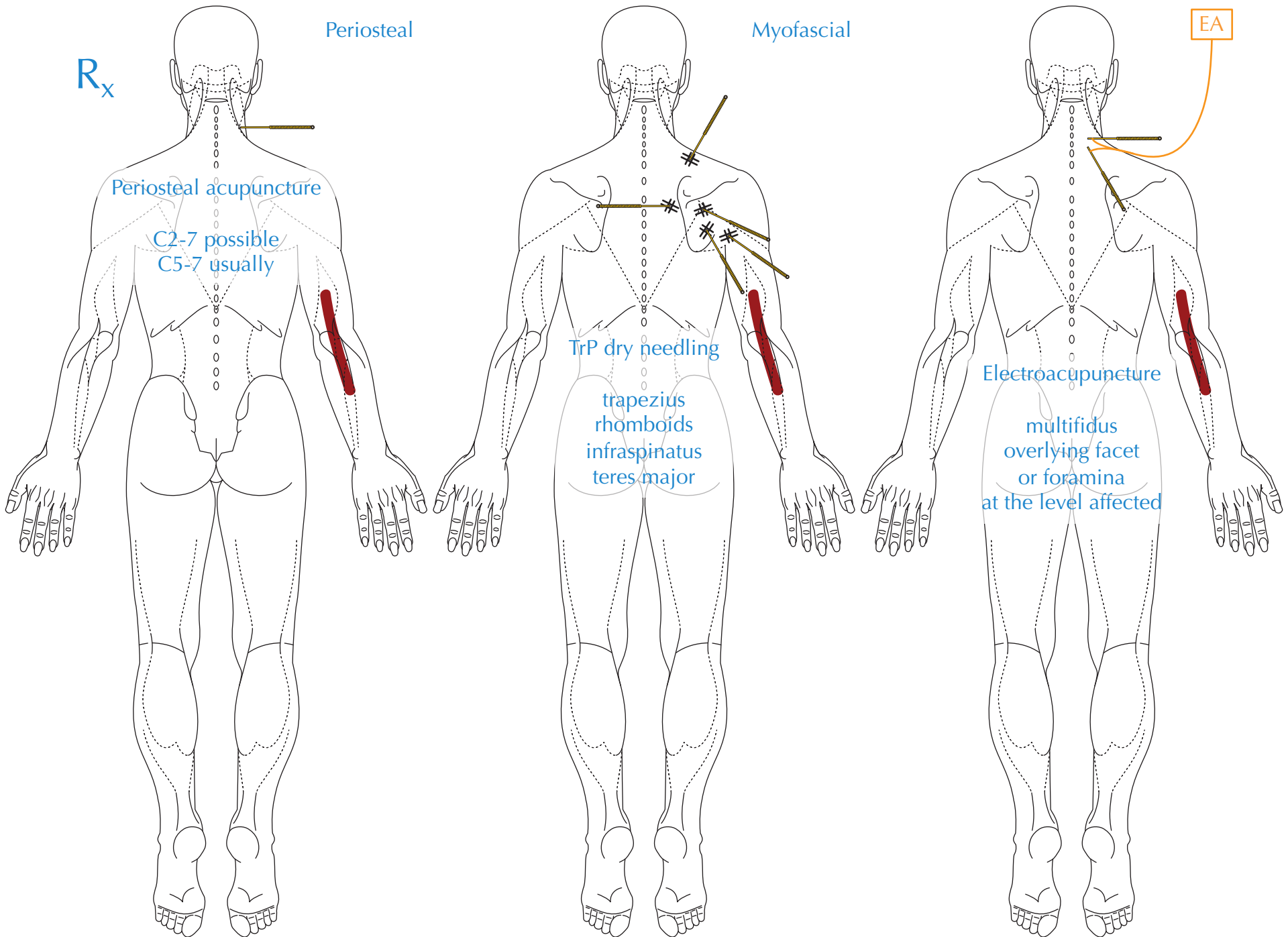
C2-7 possible
C5-7 usually

TrP dry needling

trapezius
rhomboids
infraspinatus
teres major

Electroacupuncture

multifidus
overlying facet
or foramina
at the level affected



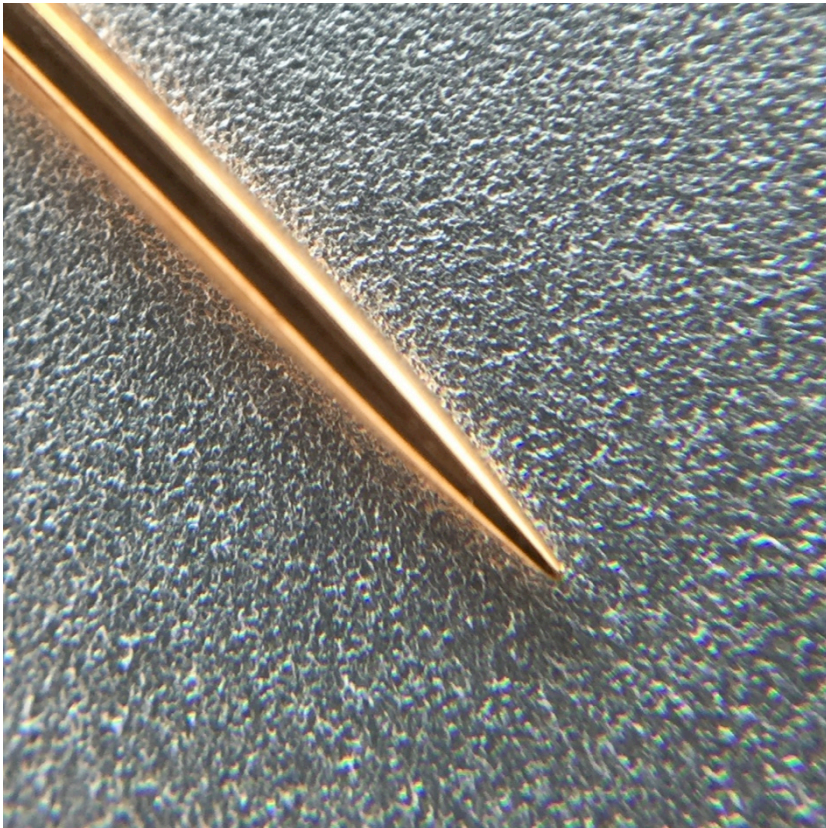
Summary

WMA approach to assessment and treatment of neck pain

- History
 - central vs lateral
- RoM and pain provocation
 - facet loading vs muscle stretching
- Needling for reproduction of recognised pain
 - muscle TrPs
 - facet margins
 - ligament (rarely)
- Treatment
 - dry needling of TrPs
 - local or regional MA
 - local or regional EA
 - periosteal needling on facet margins / articular column

An approach to neck pain...

...the WMA approach to the
assessment and treatment of neck pain



Thank you for listening

Dr Mike Cummings
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