ASE SEMINARS LLC

Trigger Point Dry Needling

Core Concepts & Pain Science

Pre-Requisite Webinar for Trigger Point Dry Needling & Pelvic Floor Seminars

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What We Will Cover

A logical progression from anatomy to clinical application

1. **Important Texts & Foundation**

   The works of Travell & Simons that define the field

2. **What is Dry Needling & What is a Trigger Point**

   Definitions, clinical criteria, and how TrPs differ from Ashi points

3. **Anatomy & Physiology**

   Taut bands, motor endplate dysfunction, and the energy crisis cycle

4. **Pain Mechanisms**

   Peripheral sensitization, central sensitization, and referred pain

5. **Treating Trigger Points**

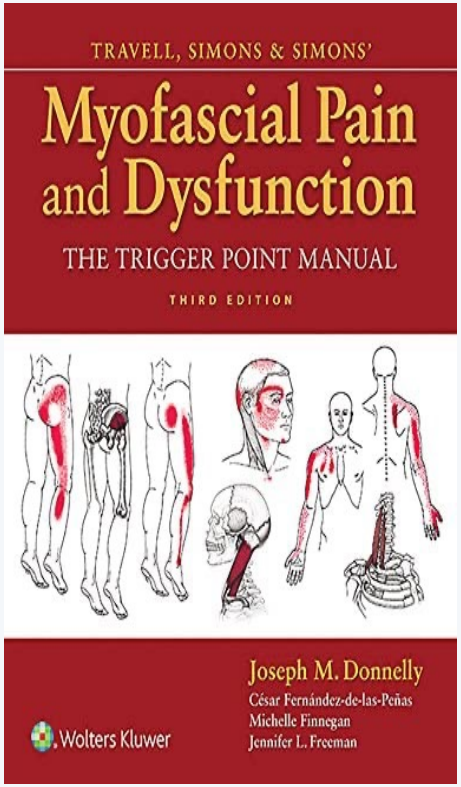
   Physical & neurological effects, the local twitch response (LTR), and why it works

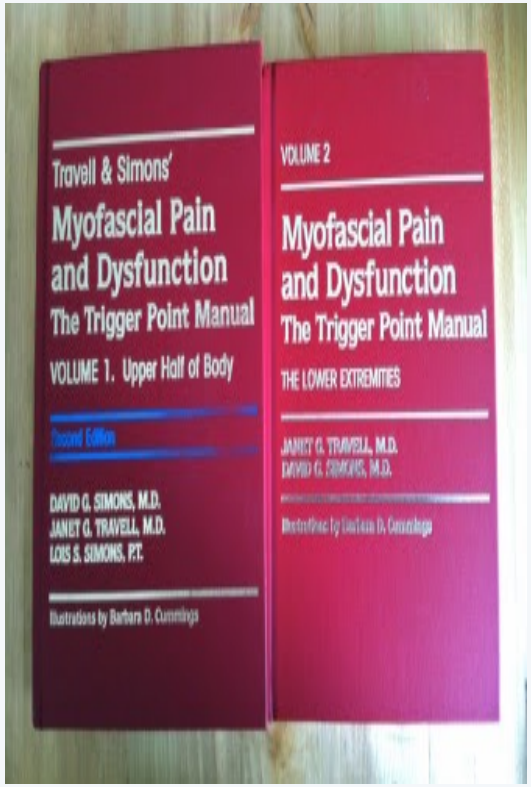
6. **Our Seminars**

   Palpation, needling skills, patient communication, and hands-on practice

Important Texts

The foundational references for trigger point dry needling





Travell & Simons
Myofascial Pain and Dysfunction

The Trigger Point Manual

The gold standard reference for myofascial trigger point diagnosis and treatment. Originally two volumes covering upper and lower body, now in a comprehensive third edition (Donnelly et al., 2019).

Dr. Janet Travell, MD — physician to presidents Kennedy and Johnson — and Dr. David Simons documented the referral patterns still used today. These books created the organized framework that defines modern TrP practice.

Not required reading before the seminar, but highly recommended for ongoing professional development.

What Is Dry Needling?

A definition rooted in anatomy, neuroscience, and clinical skill

A form of acupuncture that utilizes modern understanding of anatomy and trigger points combined with specific needling skills to effectively treat pain and dysfunction.

Local Effects

- Directly targets taut bands and TrP nodules
- Causes a local twitch response (LTR)
- Disrupts dysfunctional sarcomere clusters
- Restores local blood flow
- Reduces sensitizing substance concentration

Systemic Effects

- Aδ fibre activation → spinal gate control
- Descending inhibitory pathways (PAG/RVM)
- Releases endogenous opioids
- Reduces peripheral sensitization
- May normalise motor endplate activity

Why It's Different

- Targets the SOURCE of pain, not the area
- Uses palpation to locate pathological tissue
- Requires pistoning needling technique
- Seeks the local twitch response
- Anatomy-based, not point-location based

We are causing physical changes to the tissue AND neuromodulating the nervous system simultaneously

Is Trigger Point Dry Needling the Same as Ashi Needling?

An important distinction for acupuncturists

Ashi Needling

- "Ashi" literally means "that's it!" — a point of pain or tenderness
- Local pain points — you needle where the patient reports pain
- Described in classical literature (Tang Dynasty) as points without fixed locations
- Not named meridian points; can occur anywhere when Qi and blood stagnation is present
- You are treating the AREA of pain

Trigger Point Dry Needling

- TrPs usually cause pain AWAY from the site of pain (referred pain)
- You must palpate for specific tissue changes: taut bands and nodules
- Pressing the TrP causes pain into the referred area where the patient feels it
- Referral zones mapped by Dr. Travell — the most organized system available
- Treating the referral zone will NOT treat the cause — you must find the TrP

Many acupuncture points ARE trigger points. The difference lies in the clinical rationale, technique, and what you are looking for.

What Is a Trigger Point?

The clinical definition

A hyperirritable spot — a palpable nodule in the taut bands of skeletal muscle. Compression can elicit a jump sign, local tenderness, local twitch response, and referred pain distant from the spot.

Palpable Nodule(s)

- A discrete, rope-like thickening within the muscle — located in the taut band.
- This is what you are feeling for with your fingertips.
- Typically 2–10 mm below the skin surface — in the muscle, not on it.

Local Tenderness

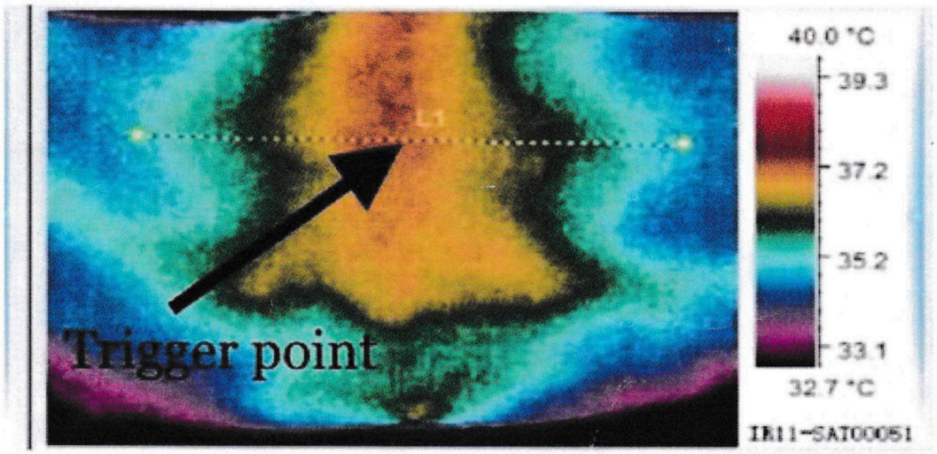
- Exquisite spot tenderness on direct compression.
- The "jump sign" — an involuntary withdrawal or pain response.
- Disproportionate to the tenderness of surrounding tissue.

Referred Pain Pattern

- Pain felt at a site distant from the TrP — following a predictable pattern specific to that muscle.
- This is the hallmark clinical feature of trigger points.
- Distinguishes TrPs from simple local tenderness.

Simons, Travell & Simons (1999); Alvarez DJ, Rockwell PG. Am Fam Physician. 2002;65(4):653-62. PMID 11871683

Modified Pic Source:
Cojocaru MC, Cojocaru IM, Voiculescu VM, Cojan-Carlea NA, Dumitru VL, Berteanu Met al. Trigger points–ultrasound and thermal findings. J Med Life (2015); 8(3): 315-8.



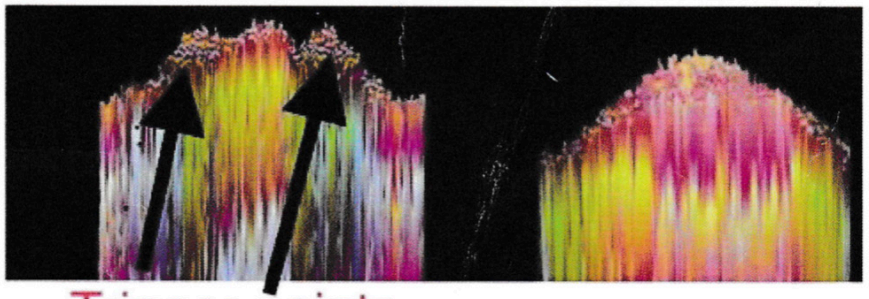
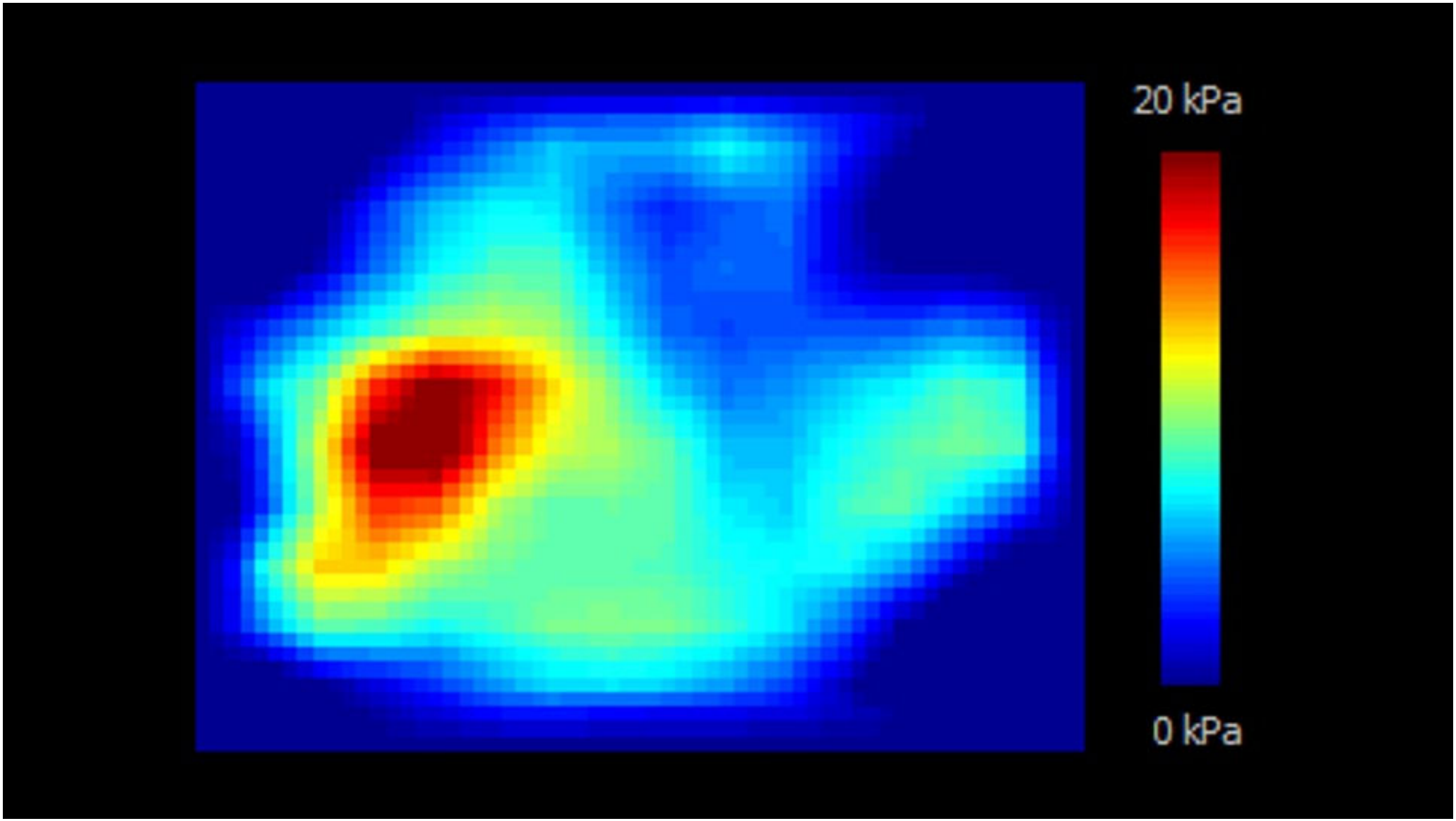


Fig. 4 3D representation of the thermal readings corresponding to R1 region for patient no. 2, initial and five


20 kPa
0 kPa

Clinical Diagnostic Criteria

Dr. Janet Travell's five criteria for identifying a trigger point

These criteria form the basis of your clinical assessment. Palpation is the skill that makes them actionable.

1	Palpable taut band (if muscle is accessible) — a rope-like hardening running the length of the muscle belly
2	Exquisite spot tenderness of a nodule in a taut band — distinctly tender, disproportionate to adjacent tissue
3	Patient recognition of their current pain complaint on compression of the nodule — this identifies an ACTIVE trigger point
4	Painful limitation of full stretch ROM — the muscle resists full passive lengthening due to the taut band
5	Pain or altered sensation in the expected referral distribution on compression — reproduces the familiar symptom pattern

Clinical Criteria: What This Means for You

These criteria translate directly into the skills you must develop

Develop Palpation Skills

- Your ability to feel taut bands, nodules, and tissue quality is the most important skill in trigger point practice.
- Everything depends on your hands and your heightened sense of touch.

Know Your Muscles

- Depth, fibre direction, attachments, referral patterns.
- You cannot safely or effectively needle what you cannot identify by anatomy and palpation.

Feel with the Needle

- As your skill develops, the needle becomes an extension of your finger.
- You will sense tissue quality, depth, and the LTR through the needle handle.

Palpate, Locate, Needle Safely

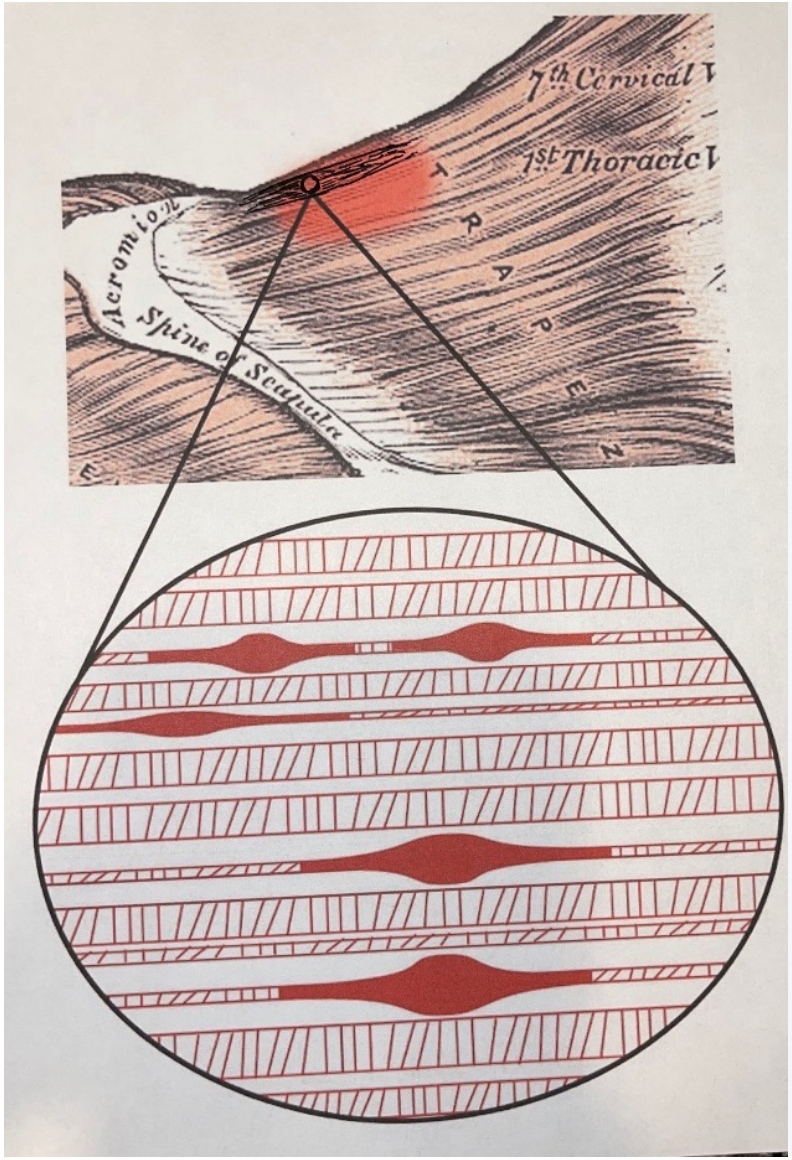
- Accurate palpation = accurate treatment.
- A needle that misses the TrP achieves little. Palpation precision is treatment precision.

You must be able to palpate, locate, and needle trigger points effectively and safely. The seminar develops all of these skills.

PART TWO

The Anatomy of a Trigger Point

Taut bands, motor endplates, and the energy crisis model



Anatomy of a Taut Band & Trigger Point

What is a Taut Band?

"The taut band is the first sign of the muscular response to biomechanical stress. This can lead to the formation of latent trigger points, which can eventually evolve into active trigger points."

Key points:

- Runs parallel to muscle fibres along the length of the muscle
- TrP is a progression of the taut band condition
- TrPs are 2–10 mm below the skin — in the muscle
- Palpating the taut band is the entry point to finding the TrP

Steps to Trigger Point Formation: Overview

The progression from muscle stress to pain

Trigger points follow a predictable cascade. Understanding this explains both why they form and why needling interrupts the cycle.

1	Overloaded muscle (from overuse, injury, poor posture, or perpetuating factors) — triggers the cascade
2	Taut band forms — the first muscular response to biomechanical stress
3	Trigger point formation: first Latent (painful only on palpation), then potentially Active (spontaneous pain + referral)
4	Muscle dysfunction: decreased ROM, pain with movement, pain at rest in advanced cases
5	Perpetuating factors (sleep, stress, dehydration, medications, lifestyle) make TrPs form more easily and recur faster

Types of Trigger Points

Two distinct presentations — same structure, different clinical behaviour

ACTIVE Trigger Point

- Always painful — tenderness = pain on palpation
- Causes the muscle to shorten, prevents full lengthening
- Can cause weakness of the muscle it resides in
- Produces spontaneous referred pain in its pattern zone
- Reproduces the patient's familiar chief complaint
- The referral zone is typically larger

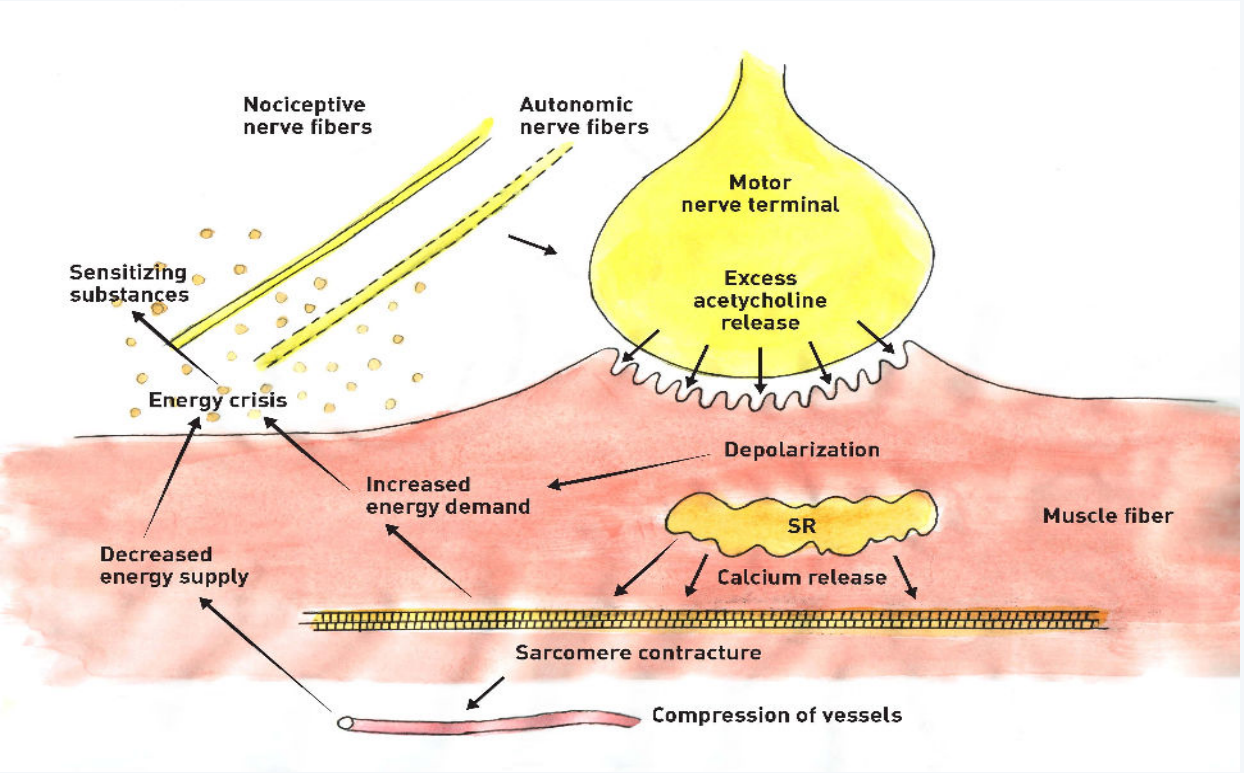
LATENT Trigger Point

- Quiet unless palpated — no spontaneous pain at rest
- Still causes stiffness and reduced ROM without pain
- Referral only on direct pressure — not spontaneous
- Far more common than active TrPs
- Can become active with sufficient stress or overload
- Still drives motor dysfunction and peripheral sensitization

Latent TrPs are the "silent contributors" — they restrict movement and perpetuate dysfunction even when patients report no pain.

Physiology of Trigger Point: Dysfunctional Motor Endplate

The integrated endplate hypothesis — Simons, Travell & Simons



SR: Sarcoplasmic Reticulum

↓ Decrease ATP

Keep CA^{2+} in muscle longer = more contraction

Hypoxic, metabolically stressed environment triggers release of pro-inflammatory chemicals

Simons DG, Travell JG, Simons LS. The Trigger Point Manual. 1999. | Gerwin RD. Curr Pain Headache Rep. 2011;15(6):462-9. PMID 21866440

Summary: The Trigger Point Cycle

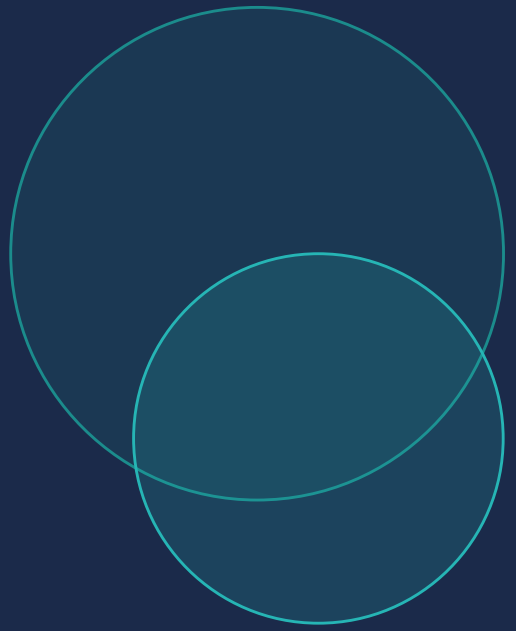
Why trigger points are self-sustaining without intervention

1	Muscle overload (from variety of causes and perpetuating factors) triggers the cascade
2	↑ ACh activity at motor endplate → ↑ motor endplate noise → sustained muscle contraction
3	Reduced blood flow / ischaemia → ↓ ATP → ↑ Ca^{2+} in cytosol → sustained sarcomere contracture
4	↑ Inflammatory and sensitizing substances (SP, CGRP, BK, PGE2) → peripheral sensitization
5	↑ Peripheral sensitization / reduced nociceptor threshold → pain with less stimulus
6	Cycle repeats — this self-sustaining loop does not resolve without intervention

PART THREE

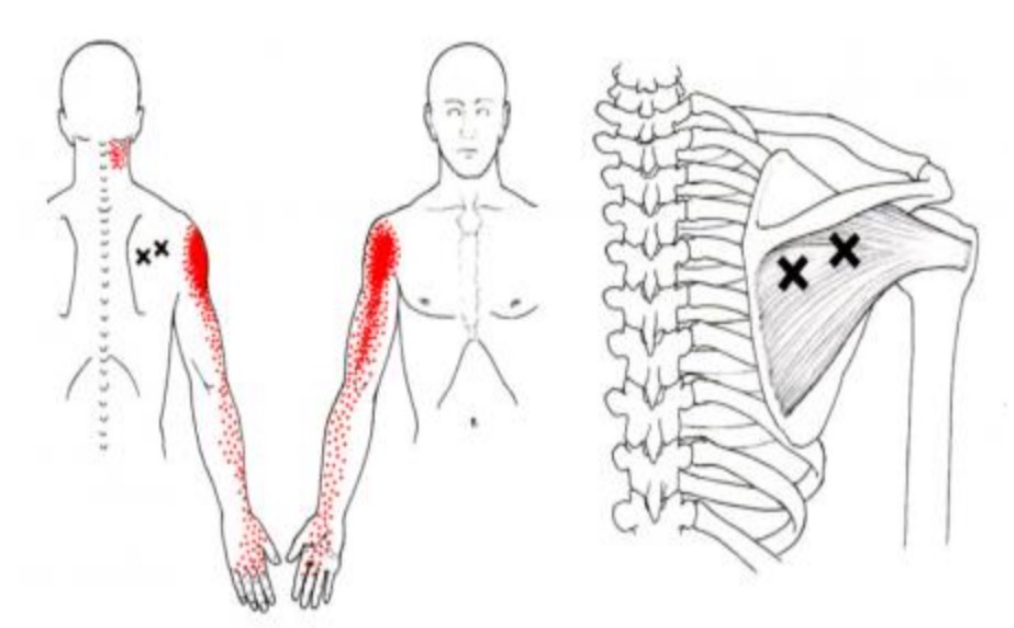
Pain Mechanisms

Peripheral sensitization, central sensitization, and referred pain



Referred Pain From Trigger Points

Pain felt at a site remote from the trigger point



Example: Infraspinatus TrP → anterior shoulder and arm pain (often misdiagnosed as rotator cuff pathology)

Definition:

Pain experienced in a region other than the source of pain. Typically, the referred area is distal to the site causing the pain.

Why this matters clinically:

- Patients present with pain in the referral zone — not at the TrP
- Treating the area of pain without finding the TrP will not resolve the cause
- Referral patterns follow predictable maps specific to each muscle (not dermatomal)
- **If palpation of a TrP reproduces familiar pain — that is your target**

What Causes Referred Pain?

The prevailing model: a hybrid of peripheral and central sensitization

The latest consensus is a hybrid model. Referred pain from TrPs is initiated peripherally and maintained centrally — both mechanisms are involved.

Peripheral Component

Active TrPs generate sustained nociceptive input from:

- Ischemia / hypoxia
- Inflammatory mediators
- Excess ACh release
- Sensitized local nociceptors
- This barrage continuously enters the dorsal horn.

Central Component

With persistent input, the CNS becomes sensitized:

- Lower firing thresholds
- Larger receptive fields
- Amplified pain signaling
- Impaired descending inhibition

Pain is then perceived remotely — referred pain.

Convergence Mechanism

Nociceptive input from muscle converges onto spinal neurons that also receive input from distant tissues.

- The brain mislocalises the source of pain.
- Sensitized neurons respond excessively — receptive fields enlarge.

Fernandez-de-las-Penas C, Dommerholt J. Curr Rheumatol Rep. 2014;16(1):395. PMID 24264721

Step 1: Trigger Point → Peripheral Sensitization

The starting point of the pain cascade

STEP 1: Trigger points provide ongoing nociceptive input

A trigger point generates sustained peripheral input from:

- Ischemia/hypoxia — compression of local capillaries by the taut band reduces oxygen supply
- Hypoxic, metabolically stressed tissue = release of inflammatory mediators
- Inflammatory mediators — bradykinin, substance P, CGRP, PGE2, histamine accumulate at the TrP site
- These binds to receptors on nociceptor terminals (TRPV1, TRPA1, B1/B2 bradykinin receptors, EP receptors)
- Sensitized nociceptors — their activation threshold has been lowered by the chemical environment

This ongoing barrage of nociception enters the dorsal horn of the spinal cord continuously.

Shah et al. (2008) used microdialysis to directly measure elevated SP, CGRP, bradykinin, and PGE2 at active TrPs — confirming this chemical milieu.

Shah JP et al. Arch Phys Med Rehab. 2008;89(1):16-23. PMID 18164325

Step 2: Peripheral Sensitization → Central Sensitization

The CNS becomes the amplifier

STEP 2: With persistent input, the CNS becomes sensitized

Second-order neurons become hyperexcitable:

- Lower firing thresholds — neurons respond to stimuli that normally wouldn't trigger them
- Larger receptive fields — each neuron now responds to a wider area
- Amplified pain signaling — same input produces greater central response
- Impaired descending inhibition — the brain's natural pain-dampening weakens

This is central sensitization. The nervous system itself has become the pain generator.

Clinical recognition:

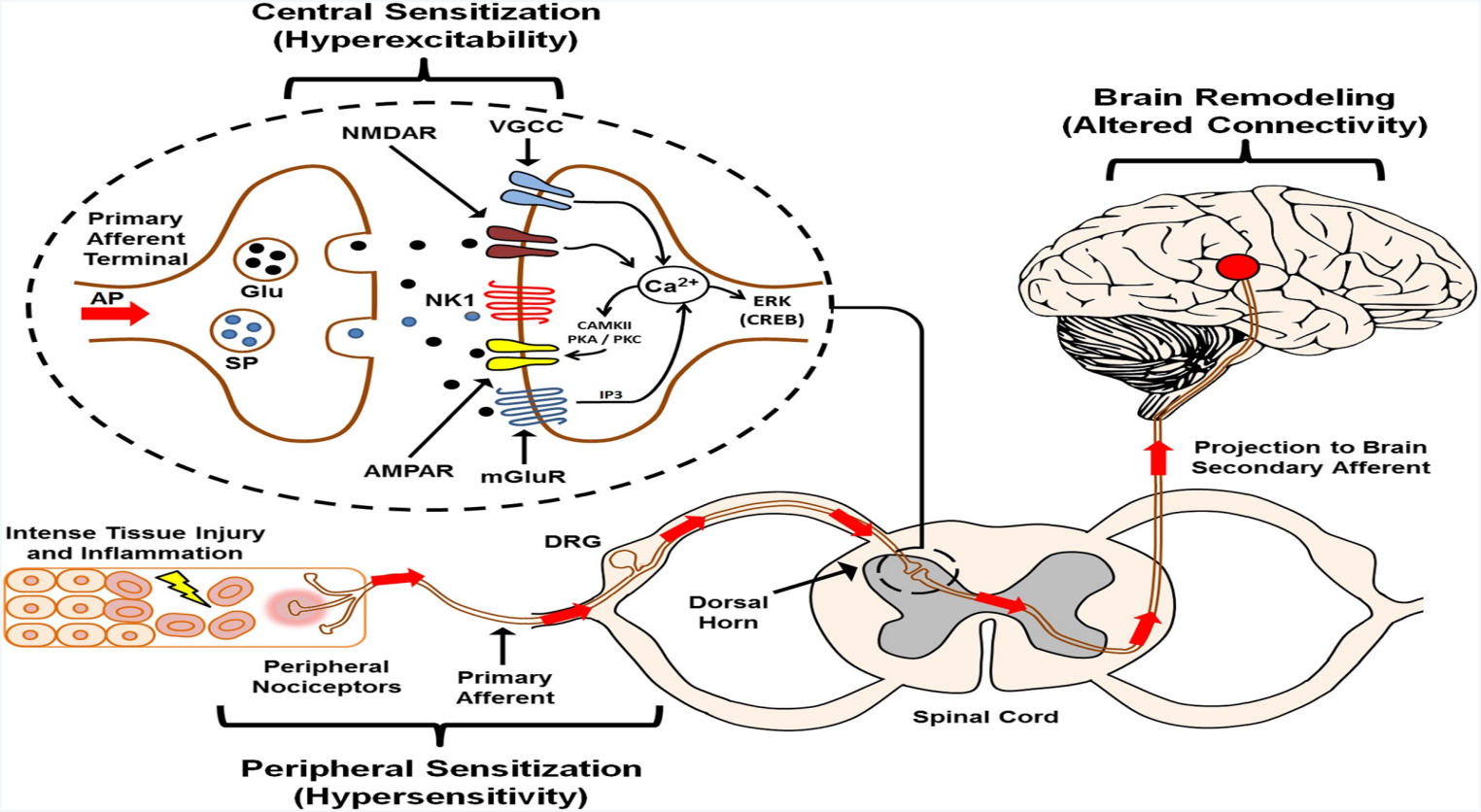
- Pain disproportionate to findings
- Allodynia — pain from non-painful stimuli
- Widespread pain beyond original TrP site
- Prolonged post-treatment flares
- Co-morbid sleep disturbance, fatigue

These patients need a different approach — see dosing section.

Woolf CJ. Pain. 2011;152(3 Suppl):S2-15. PMID 20961685

Central Sensitization: The Mechanism

From peripheral nociceptors to dorsal horn amplification to brain remodelling



Bazzari AH, Bazzari FH. Egypt J Neurol Psychiatry Neurosurg. 2022;58:38.

Click to Watch the Video on Central Sensitization

Step 3: Central Sensitization → Referred Pain

How convergence and field expansion create distant pain

STEP 3: Referred pain emerges from convergence and expansion

The leading explanation: convergence-projection mechanism

- Nociceptive input from muscle converges onto spinal neurons that also receive input from distant tissues
- Sensitized neurons begin responding excessively to all inputs from their enlarged receptive field
- The brain mislocalises the source of pain to the peripheral territory of those shared neurons
- As sensitization progresses, receptive fields enlarge — pain is perceived increasingly remotely

This is why:

- The patient feels arm pain when the TrP is in the infraspinatus
- The pain is real — the source is remote
- Treating the referral zone without finding the TrP will not resolve the pain

Fernandez-de-las-Penas C, Dommerholt J. Curr Rheumatol Rep. 2014;16(1):395. PMID 24264721

Step 4: A Bidirectional System

Central sensitization may also maintain trigger points

STEP 4: One of the most important modern shifts — the relationship is bidirectional

TrPs Drive Central Sensitization

- Active trigger points generate sustained peripheral input which drives central sensitization over time.
- The longer a TrP is active and untreated, the deeper the central sensitization becomes.

CS Promotes More TrP Activity

- Central sensitization can then promote MORE trigger point activity.
- Experimental evidence shows that inducing central sensitization increases TrP sensitivity in related muscles.

Certain patients may already be in this stage. These patients need a broader CNS-focused approach — not just local TrP treatment.

Summary: Peripheral nociception → central sensitization → motor dysfunction → more TrP irritability → more nociception. Appropriate TrP treatment reduces central sensitization.

Focus of Technique & Dose of Treatment

Not all patients respond the same way — mechanism drives approach

Local TrP Responders	Peripheral Sensitization	Central Sensitization
• Improve rapidly with local TrP treatment. • Standard pistoning, LTR, post-needling stretch. • 2–4 TrPs per session. • Clear improvement session to session.	• Respond moderately. • May need lighter dose, fewer needles, longer recovery between sessions. • Post-treatment soreness >48 hours = reduce dose next session.	• Do not respond to local TrP treatment OR they flare easily. • Need a broader CNS-focused approach. • Heavy peripheral needling can worsen their condition.

You also need to control the dose of treatment. More is not always better — this is a critical clinical skill.

The Spectrum of Sensitization

Understanding where your patient sits determines how you treat

1	Local peripheral trigger point pain — responds well to standard TrP needling; rapid improvement; well-localised pain
2	Segmental sensitization — some spreading of sensitivity; lighter dose needed; referral zones larger; moderate response
3	Widespread central sensitization — pain beyond original region; allodynia; sleep/fatigue/cognitive issues; disproportionate pain responses

⚠️ Chronic systemic patients can be more difficult to treat. Identify the spectrum level before needling — it determines your entire approach.

See next slide: how to identify CS and how to approach treatment.

Central Sensitization: Identification & Treatment

When the nervous system itself has become the pain driver

Keys to Identifying CS

- Widespread pain beyond the original TrP site
- Pain out of proportion to findings
- Allodynia — pain from normally non-painful stimuli
- CSI score ≥40
- Systemic sensitization: History of fibromyalgia, IBS, or chronic fatigue
- Prolonged post-treatment flares (>48 hrs)
- Co-morbid sleep disturbance, brain fog, fatigue
- Pain that spreads or worsens after standard TrP treatment

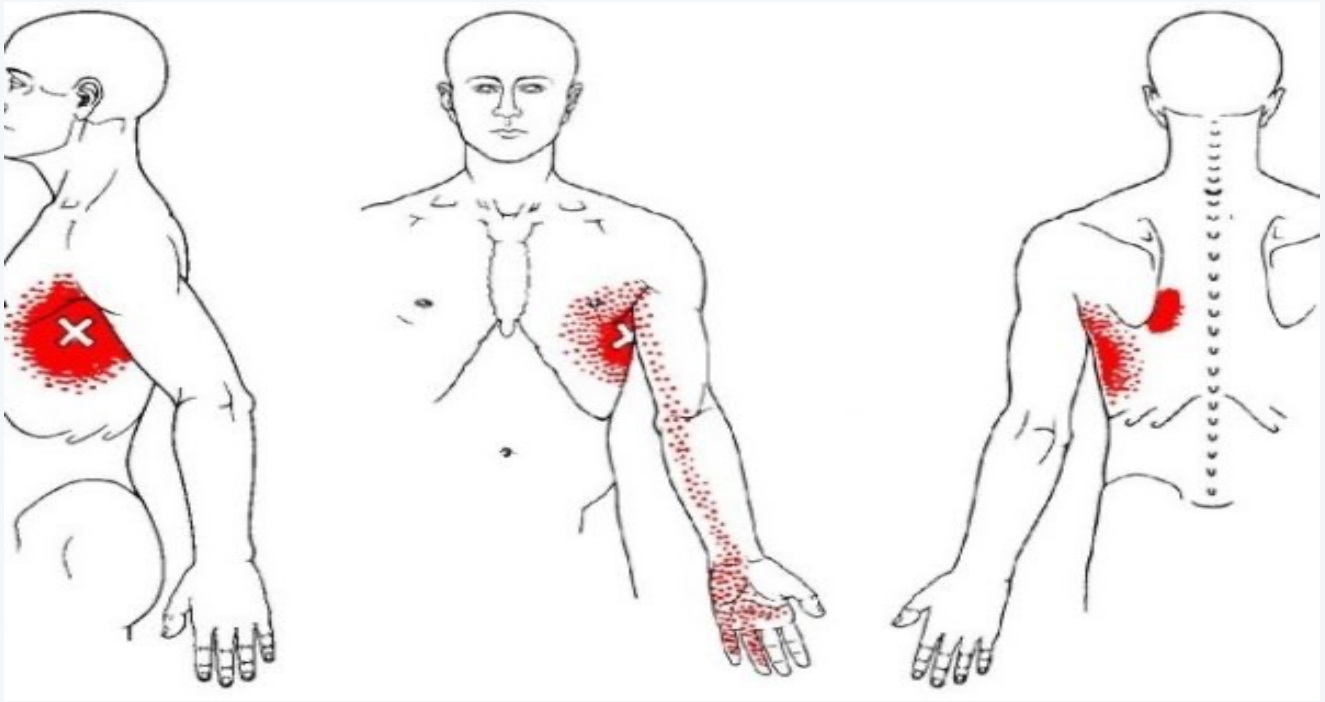
CS Treatment Principles

- Pain neuroscience education FIRST — before needling
- Very light needling only — sensory-level stimulation
- Sensory-level EA preferred (non-noxious)
- Avoid aggressive pistoning or multiple LTRs
- Breathwork and nervous system regulation
- Monitor flare duration — reduce dose if >48 hrs
- Refer: psychology, PT, sleep support when needed
- Do NOT needle aggressively

Most clinical presentations are MIXED. Re-assess at every visit. A patient can shift along the spectrum with treatment.

Examples of Referred Pain

Familiar pain complaints caused by trigger points far from where the patient feels them



These referral patterns are mapped by muscle and are reproducible across patients. When you press a TrP and the patient says "that's exactly where my pain is" — you have found your target.

Source: Simons, Travell & Simons. Myofascial Pain and Dysfunction: The Trigger Point Manual. 3rd Ed.

Referred Pain Patterns

Each muscle has a predictable referral zone — knowing these guides your palpation search

Muscle with Active TrP	Referral Area — Strong	Referral Area — Additional
Trapezius	Posterior aspect of ACJ	
Scalene	Anterior deltoid Lateral arm to elbow	Posterior deltoid
Infraspinatus	Anterior deltoid Middle of biceps belly	Lateral deltoid
Supraspinatus	Lateral deltoid	
Subscapularis	Posterior deltoid to lateral scapular border	
Teres Major	Posterior deltoid	
Anterior Deltoid	Anterior deltoid to antero-lateral humerus	Lateral & posterior deltoid
SCM	Head/eye	

PART FOUR

Treating Trigger Points & Referred Pain

Physical effects, neurological effects, the LTR, and why it works

What Dry Needling Actually Does

It is not just "breaking up a knot" — multiple mechanisms operate simultaneously

When patients say "can you break up my knot?" — the reality is more complex. Most of the pain relief from dry needling is neurological, not purely structural.

Local Effects

- LTR disrupts dysfunctional sarcomere cluster
- Decompresses capillaries → blood flow restored
- Sensitizing substances cleared from TrP site
- Controlled microtrauma → tissue repair cascade
- Fascial mobility restored

Systemic Effects

- Aδ fibre activation → gate control at dorsal horn
- Descending inhibitory pathways activated (PAG/RVM)
- Endogenous opioid release (β-endorphin, enkephalin)
- Peripheral sensitization reduced
- Motor endplate noise may be normalised via LTR

The Result

- Local pain and tenderness decrease
- Pressure pain threshold rises
- Referral zone reduces or resolves
- Distant pain relieved via segmental analgesia
- ROM improves — measurable and reproducible

One needle insertion triggers all three streams simultaneously. Understanding this changes how you needle.

Getting the Local Twitch Response (LTR)

The most therapeutically significant mechanical event in dry needling

An involuntary spinal reflex contraction of the taut band on needle contact. It is NOT voluntary — it is a neurological event produced by a mechanical stimulus.

What the LTR Does

- Mechanically disrupts dysfunctional sarcomere clusters
- Decompresses capillaries → restores blood flow
- Flushes sensitizing substances from the TrP site
- May temporarily normalise ACh release at the endplate
- SEA decreases after needling with LTR (Chu, 1997)

Evidence for the LTR

- Hong (1994): multiple LTRs correlate with better outcomes than single needling passes
- Hubbard & Berkoff (1993): SEA at TrPs confirmed by EMG
- Chu (1997): SEA decreases after needling — endplate normalisation
- Prevailing consensus: LTR provides greatest therapeutic benefit

⚠ Too many LTRs can be noxious. Dose matters. Patients with central sensitization need significantly lighter treatment.

✓ Some authors question whether LTR is necessary. The prevailing consensus is that obtaining a LTR provides the greatest therapeutic benefit.

Hong CZ. Am J Phys Med Rehab. 1994;73(4):256-63. PMID 8043247 | Hubbard DR, Berkoff GM. Spine. 1993;18(13):1803-7. PMID 8235857

Neurological Effects: Descending Inhibition

The needle signals the brain to turn down pain — system-wide

1	Aδ fibres activated by needle insertion → signal to the dorsal horn → segmental inhibition of nociceptive traffic (Gate Control: Melzack & Wall, 1965)
2	Signal ascends to the periaqueductal grey (PAG) and rostral ventromedial medulla (RVM) — the brain's main descending pain control centres
3	PAG/RVM activates descending inhibitory tracts that release: serotonin (5-HT), norepinephrine (NE), and endogenous opioids (β-endorphin, enkephalin) into the dorsal horn
4	Pain inhibition across multiple segments — explains why needling one TrP relieves pain in a distant referral zone

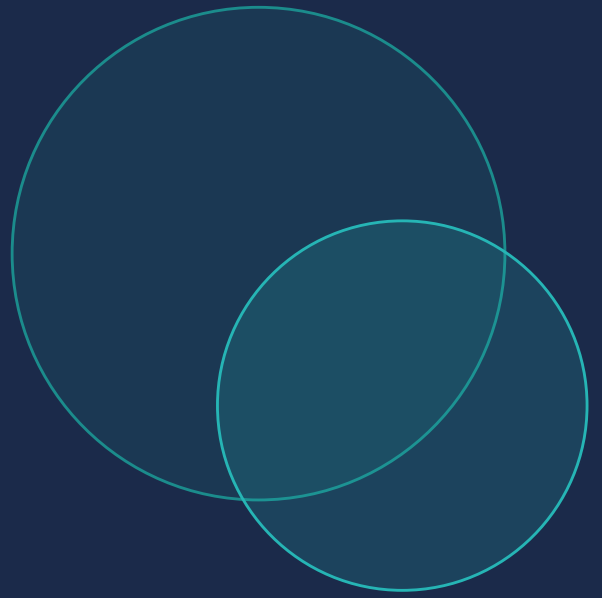
This is conditioned pain modulation (CPM). It is why patients often feel overall improvement beyond the site needled.

Melzack R, Wall PD. Science. 1965;150(3699):971-9. PMID 5320816 | Srbely JZ et al. Eur J Pain. 2010;14(7):772-8. PMID 20194032

PART FIVE

Clinical Application

Palpation, needling skills, and treating patients effectively



The Clinical Application of Treating Trigger Points

Why palpation and technique determine results

Treating trigger points effectively requires both extensive palpation skills AND specific needling skills. Most practitioners were not trained in either.

Palpation Skills

- Must palpate bands, trigger points, and abnormal tissue tone
- Very different from standard acupuncture palpation
- You are looking for specific tissue changes — not just tenderness
- This is the skill that separates effective TrP practitioners

Needling Skills

- Specific technique: pistoning, depth control, LTR elicitation
- Anchoring the needle hand for control
- Redirecting needles for additional insertions
- THIS is how you stand out clinically

Anatomy Knowledge

- Know muscle depths, fibre directions, and attachments
- Know what structures lie beneath your target at each depth
- Understand referral patterns for each muscle
- Safety comes from anatomy knowledge, not timidity

Pattern Recognition

- Connect referred pain patterns to source muscles
- Ask: where is the patient feeling pain? Work backward to the TrP
- Active TrPs reproduce familiar pain on palpation
- Multiple TrPs can produce overlapping patterns

Developing the Ability to Feel

What you are training your hands and fingertips to detect

Different Depths, Different Muscles

- Skin • Subcutaneous fascia • Deep fascia • Muscle belly • Bone. Each has a distinct quality.

Fascial Lines & Divisions

- Where one muscle ends and another begins. These boundaries guide your TrP search.

Taut Bands

- Rope-like thickenings running parallel to muscle fibres. Your primary search target.

Trigger Points Themselves (2–10mm)

- A nodule within the taut band — distinctly tender, reproduces familiar pain on compression.

Feel with the Needle

- Feel resistance change with depth, sense the taut band, recognise the LTR through your fingertips.

Patient Positioning

- Proper positioning relaxes the target muscle, making palpation easier and needle access better.

You will practice palpation in the seminar under instructor guidance.
Come prepared to touch, be touched, and ask questions. There are no wrong questions during palpation practice.

Differences: Needling TrPs vs. Acupuncture Points

Different target, different technique, different intent

Acupuncture Needling	Trigger Point Dry Needling
• Location: specific acupuncture points — typically more superficial (relative) • Based on channel theory or functional point indication • Twitch response not expected • Needles often retained without manipulation • De qi sensation may be sought in some styles • Note: Many acupuncture points ARE trigger points — significant clinical overlap	• Location: TrP — found by palpation; often significantly deeper • Based on myofascial anatomy and pain neuroscience • Pistoning technique: needle moved in/out to find TrP and elicit LTR • LTR is the primary therapeutic target — expected and sought • No retention of needle — in, LTR, out • Critical difference: you are locating pathological tissue by palpation

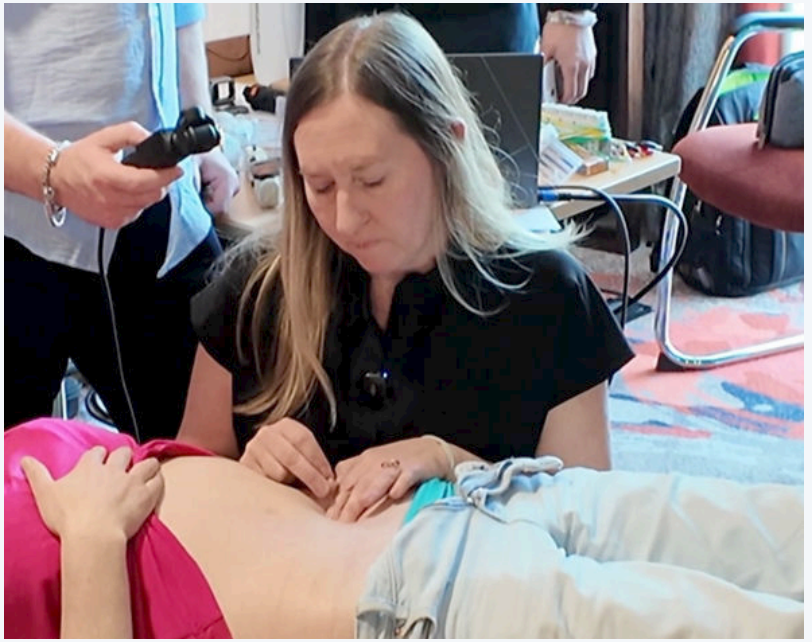
Your training in channel theory and point functions enhances, not competes with, your TrP practice.

Examples of Needling Skills

Key techniques for effective and safe trigger point dry needling

Core needling skills:

- Patient positioning — relaxes the target muscle
- Palpation prior to and during needling
- Anchoring the needling hand for better control
- Confidence with deeper needling
- Redirecting the needle to reduce additional insertions
- Eliciting and managing the LTR
- Controlling needle exposure for consistent insertions



These skills are developed hands-on in the seminar. Video resources give you a preview.

Treating Patients with Trigger Points

Clinical communication and patient management

Explain the Cause of Pain

"There are areas in your muscle stuck in a contracted state and releasing pain chemicals. The needle helps reset this."

Set Expectations

"You may feel sore for 24–48 hours — normal. If soreness lasts longer than 48 hours, tell me and I'll reduce the dose."

Explain the Treatment Plan

How many sessions, frequency, what to do between sessions. Patients who understand the plan comply better.

Know When to Refer Out

Central sensitization, fibromyalgia, major psychological factors — these require a multidisciplinary approach.

Address Perpetuating Factors

- Treatment is more effective when you also address what is causing TrPs to recur: posture, ergonomics, overuse patterns, sleep, stress, dehydration, and nutritional factors. Treating the TrP without addressing perpetuating factors leads to recurrence.

Patient who understands what is happening → less anxious → better compliance → better outcomes.

Treating Trigger Points: Why It Works

Several mechanisms — all share the goal of reducing nociceptive input

All effective TrP treatments share one endpoint: reducing the nociceptive drive from the muscle. The mechanisms differ — the goal is the same.

Reducing Motor Endplate Noise

- The #1 mechanism.
- The LTR mechanically disrupts the dysfunctional sarcomere cluster, may temporarily deplete ACh, and reduces spontaneous electrical activity (SEA).
- (Hubbard & Berkoff, 1993; Chu, 1997)

Clearing the Chemical Environment

- The LTR restores local blood flow, diluting and clearing SP, CGRP, bradykinin, and PGE2 from the TrP site.
- This allows nociceptor thresholds to normalise.
- (Shah et al., 2008)

Neurological Modulation

- Needle insertion activates descending inhibitory pathways. Endogenous opioids released. Gate control engaged.
- Pain inhibited segmentally and supraspinally.
- (Melzack & Wall, 1965; Srbely et al., 2010)

Needling & obtaining the LTR → reduced endplate noise. Physical AND neurological — both together.

Trigger Points vs. Motor Points

Two different targets — critical to understand the distinction

Trigger Points

- A pathological state of tissue that causes pain
- Relatively deeper — in the muscle belly, not at the surface
- Located by palpation — requires skilled hands
- A consequence of dysfunction and overload
- Treatment: pistoning technique, seeking the LTR
- Referred pain is a defining characteristic

Motor Points

- Motor points are always present — they ARE the neuromuscular junction
- Relatively superficial compared to TrPs
- NOT an anatomical anomaly or pathology
- Located by anatomy reference, not by palpating a nodule
- Treatment: e-stim (electroacupuncture), no pistoning
- No referred pain pattern as a defining feature
- Especially effective for muscular inhibition and improving function

The treatments are different. Confusing the two leads to incorrect technique selection and suboptimal outcomes.

What to Expect in the In-Person Seminars

Hands-on learning designed to build real clinical skill quickly

The purpose of in-person seminars is to gain as much practice as possible, so you can confidently use these skills safely and effectively.

Extensive Hands-On Practice

- This is not a lecture seminar.
- You are at the table, needles in hand, with a partner.
- Most of your time is spent practicing — not listening.

Practicing Needling Skills

- You will practice pistoning, anchoring, depth control, LTR elicitation, and redirecting.
- Repetition builds confidence and accuracy.

Little Lecture

- Lecture is kept to a minimum.
- This presentation is your lecture. The seminar is your practice.
- You learn needling by needling.

Switching Partners

You switch partners regularly — different body types, tissue qualities, and depths. Builds adaptability fast.

A Lot of Support & Guidance

Instructors circulate continuously. No one is left to figure it out alone. The goal: leave feeling confident.

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