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Pain, Opioids, Osteopathic Manipulation: Guidelines and Treatment Options

David Patchett DO, FACOFP

Case

- 29 year old white female presented initially in 2012 with chronic neck and LBP after rear end MVA on the freeway. Pain is a constant dull ache 4/10 can get to an 8-9/10. Pain not relieved with NSAIDS and PT. No neurologic symptoms, baseline x-ray imaging OK. Significant fear of needles. Presented for OMT and possible other treatment options.

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Case

- Social Hx:no tob, etoh, or drug use. Happily married with 1 child. Diet: regular, try's to eat healthy. Exercise: walks daily. Stress: intermittently elevated but manages well. Work: AZ State Criminal Defense Attorney/ enjoys work. No ACES
- ROS: MSK: per the HPI, Neuro: neg, Psych: denies anxiety or depression. Positive for plane flight phobia

Case

- PE: cervical spine inspection normal, pain Para spinal r c4/c5, rom restrict rotation s/b to the left, trigger points b/l trap, r lev scap, b/l SCM
- PE: lumbar: normal inspection. R L3 Para spinal tenderness, pain rom left rot/s/b,
- Neuro: normal
- Osteopathic: multiple findings

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Case Plan

- Dx: Myofascial pain, somatic dysfunction cervical, thoracic, lumbar, and sacrum
- Plan: Discussed MRI, patient deferred at that time. OMT improved her pain and rom. AZPMP showed no concerning behavior. Refilled her Vicodin and Fiorcet. Saw her every 2 weeks than monthly as it keeps her functional. Continued with medications

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Guidelines

- Lets start with current state and national guidelines around opioid prescribing

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Acute Pain Opioid Guidelines

- Use RICE/ NSAIDS/Tylenol as first line, often patients have not given adequate dosing and time of these.
- *If contraindications to above meds consider curcumin 500mg bid*
- Use lowest effective dose and shortest duration when prescribing opioids
- 5 days or less

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https://www.ncbi.nlm.nih.gov/pubmed/29164565

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Eur Rev Med Pharmacol Sci. 2017 Nov;21(21):4935-4940.

A naturally-inspired, curcumin-based lecithin formulation (Meriva® formulated as the finished product Algocur®) alleviates the osteo-muscular pain conditions in rugby players.

Di Pierro F[1], Zacconi P, Bertuccioli A, Togni S, Eggenhoffner R, Giacomelli L, Scaltrini S.

Author information

Abstract

OBJECTIVE: Curcumin is one of the most investigated phytochemical products because of its low toxicity and its broad spectrum of bioactivity, including anti-inflammatory and analgesic properties. A new delivery form of curcumin, resorting to phosphatidylcholine (Meriva®, formulated as the finished product Algocur®) has been developed to increase its bioavailability. In this study, we tested the efficacy and safety of a Meriva®-based product in rugby players suffering by different osteo-muscular pain conditions PATIENTS AND METHODS: In this pilot study, 50 male rugby players with osteo-muscular pain due to traumatic injuries, physical overload or acute episode of chronic pain were recruited and treated with conventional analgesic drugs (n = 25) or Meriva®-based product (n = 25) for a maximum of 10 days. The pain perception and the functio laesa were evaluated at baseline and after 1, 3, 6, 10 and 20 days from the initiation of the treatment protocol. Treatment tolerability, compliance, and adverse events were also reported.

RESULTS: During the study, the analgesic effect decreased in both treated group compared to baseline, starting from the third day of treatment. Similarly, the impaired physical function evaluated after 3, 6, 10 and 20 days improved in Meriva®-based product treated group and in subjects treated with conventional analgesic drugs, compared to the baseline condition. The percentage of excellent adherence to treatment or tolerability was higher in the Meriva®-based product treated group. Only 1 (4%) subject treated with Meriva®-based product experienced adverse events whereas 4 (16%) subjects treated with conventional analgesic drugs reported gastric pain as an adverse event.

CONCLUSIONS: Despite the small sample size and the group heterogeneity, this study suggests that the naturally-derived, curcumin-based delivery form, Meriva® (formulated as the finished product Algocur®), could represent a promising safe, analgesic remedy in painful osteo-muscular conditions associated with intense, high impact, physical activities.

PMID: 29164565

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CDC Chronic Opioid Guidelines

- **Determining When to Initiate or Continue Opioids for Chronic Pain**
  - Nonpharmacologic therapy and nonopioid pharmacologic therapy are preferred for chronic pain.
  - Before starting opioid therapy for chronic pain, clinicians should establish treatment goals. Clinicians should continue opioid therapy only if there is clinically meaningful improvement in pain and function that outweighs risks to patient safety.
  - Before starting and periodically during opioid therapy, clinicians should discuss with patients known risks and realistic benefits of opioid therapy and patient and clinician responsibilities for managing therapy.

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CDC Chronic Opioid Guidelines

- **Opioid Selection, Dosage, Duration, Follow-Up, and Discontinuation**
  - When starting opioid therapy for chronic pain, clinicians should prescribe immediate-release opioids instead of extended-release/long-acting (ER/LA) opioids.
  - Prescribe lowest effective dose, care above 50MME, avoid above 90MME
  - Avoid benzo/opioid combination
  - Clinicians should evaluate benefits and harms with patients within 1 to 4 weeks of starting opioid therapy for chronic pain or of dose escalation. F/u every 3 months

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Arizona 2018 Law

- Limit first time prescriptions to 5 days, 14 days for post op pain
- Any patient on greater than 90MME must have seen a pain management specialist who OK's the dosing
- (does not apply to cancer/ hospice/trauma)
- Require 3 hours of Opioid CME per licensure cycle

(Mayo has Podcast)

- Continue to require checking AZ CSPDMP

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Arizona 2018 Law

- Increased access to naloxone without an RX. Given to first responders as well
- Establish Good Samaritan Law in AZ
- Increase access to opioid treatment facilities
- Target bad actors(stop pill mills)
- Angel initiative(can go into police and turn in drugs an request tx)

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Arizona 2018 Law

- Require e-prescribing(likely to not be until 2019)
- Stop doctor shopping
- Change pill bottle labeling
- Improve disposal options(Wal Mart has a system now)
- Need acute and chronic opioid agreements
- Requires a physical exam
- Complete an opioid risk tool for acute and chronic pain patients

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Arizona Law

- Document within the chart the purpose of opioid treatment:
  - Current and past medical history, social history, psychiatric history (as applicable)
  - The effectiveness and duration of previous non-opioid therapies
  - The expected benefits of opioid treatments
  - Use the 6A's for chronic prescribing: Analgesia, affect, aberrant drug related behavior, activity, adverse effects, adjunctive treatments

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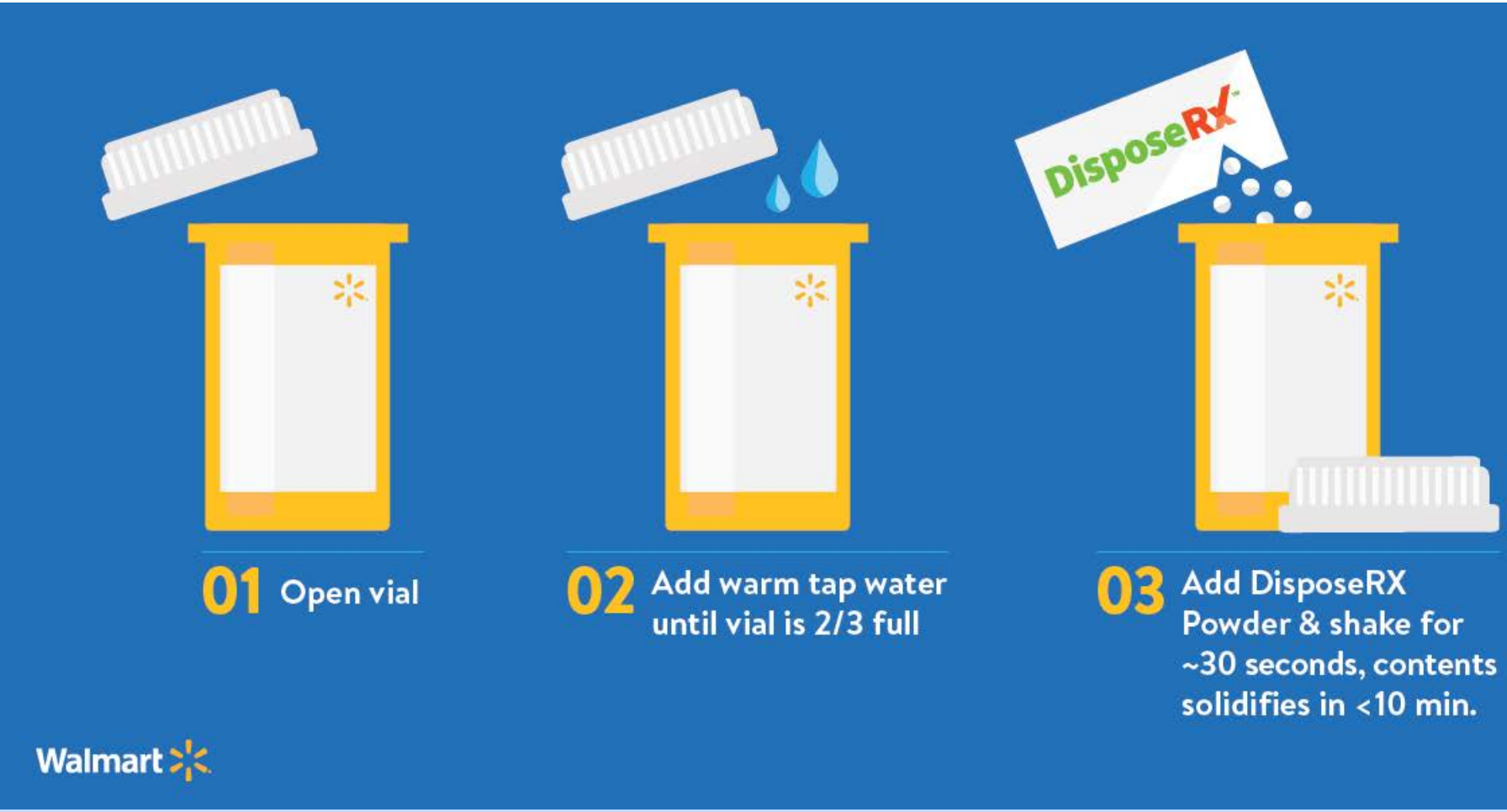
DisposeRX
01 Open vial
02 Add warm tap water until vial is 2/3 full
03 Add DisposeRX Powder & shake for ~30 seconds, contents solidifies in <10 min.
Walmart

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How many days should opioids be limited for acute prescribing in nonsurgical patients

- A) 3 days
- B) 5 days
- C) 7 days
- D) 14 days

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How To

- Send letter to existing patients about new practice guidelines
- All providers sign up for Controlled Substance Monitoring Program(CSMP)
- Pt signs Controlled Substance Agreement (CSA) to acknowledge discussion of risks, benefits and alternatives and their acceptance
- Complete Opioid Risk Tool with patient
- 6 A's reviewed at each visit (analgesia, activity, affect, aberrant behavior, adverse effects, adjuncts).
- Once yearly random urine drug screen
- At least quarterly face to face encounters and check PDMP at that time. Delegates can do this as well

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Opioid Risk Tool (ORT)

Questionnaire developed by Lynn R. Webster, MD to assess risk of opioid addiction.

MARK EACH BOX THAT APPLIES	FEMALE	MALE
FAMILY HISTORY OF SUBSTANCE ABUSE		
Alcohol	☐ 1	☐ 3
Illegal drugs	☐ 2	☐ 3
Rx drugs	☐ 4	☐ 4
PERSONAL HISTORY OF SUBSTANCE ABUSE		
Alcohol	☐ 3	☐ 3
Illegal drugs	☐ 4	☐ 4
Rx drugs	☐ 5	☐ 5
AGE BETWEEN 16–45 YEARS	☐ 1	☐ 1
HISTORY OF PREADOLESCENT SEXUAL ABUSE	☐ 3	☐ 0
PSYCHOLOGIC DISEASE		
ADD, OCD, bipolar, schizophrenia	☐ 2	☐ 2
Depression	☐ 1	☐ 1
SCORING TOTALS		

ADMINISTRATION

- On initial visit
- Prior to opioid therapy

SCORING (RISK)

0–3: low

4–7: moderate

≥8: high

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How to incorporate the requirements

- With opioid refills require allied health staff to document in refill request if patient has met these guidelines.
- Also with chronic use screen for depression and anxiety with PHQ9/GAD 7
- Consider functional assessment with Peg questionnaire

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Benefits

1) Implementation of a standardized opioid prescribing and refill process resulted in frequent discontinuation of therapy (21.8% of patients).

   - Simply sending patients a letter to notify them of our standardized processes and then completing an office visit to discuss risks, benefits and alternatives of chronic opioid therapy (as documented in a signed CSA), created a powerful impact on patient behaviors.

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Non pharmaceutical pain treatment options

- Diet: whole food plant based diet, limit sugar, consider gluten/dairy free trial.
- Exercise: aerobic, tai chi, yoga. Tailor to patient
- Curcumin: 500mg to 1500mg a day, divided 1-2 x daily
- Omega 3 fish oil 2-3 grams a day
- Essential oils

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Non pharmaceutical pain treatment options

- Acupuncture
- Auricular acupuncture: especially for mental health portion or addiction issues(i.e.. NADA Protocol)
- Mindfulness
- CBT

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Osteopathy

- The body is a unit; the person is a unit of body, mind, and spirit.
- The body is capable of self-regulation, self-healing, and health maintenance.
- Structure and function are reciprocally interrelated.
- Rational treatment is based upon an understanding of the basic principles of body unity, self-regulation, and the interrelationship of structure and function.

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Classic 5 models plus 1

- Classic 5: 1)biomechanical-structural 2)respiratory-circulatory 3)neurological 4)metabolic-nutritional and 5)behavioral-biopsychosocial
- 6) Bioenergetic
- Fascial distortion model is a model that can be used by itself or within the greater osteopathic model of care

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Fascial Distortion Model

Anatomical perspective in which most musculoskeletal injuries and certain medical conditions are envisioned as consisting of one or more of six principal fascial distortion types -each of which have signature clinical presentations.

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StephenTypaldos, DO

Founded and developed by StephenTypaldos, DO (UHS-COM 1986) in 1991 until his untimely death in 2006

Published in AAO Journal 1994 and multiple text book editions written

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Fascial Distortion Model

- In this model the patient is the expert
- The patient intuitively knows what needs to occur to make them feel better
- This is communicated through consistent verbal expressions and hand gestures
- The system of communicating is universal in the fascia

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Fascial Distortions

- Triggerband: Distorted banded fascial tissue (TB)
- Herniated Triggerpoint: abnormal protrusion of tissue through fascial plane (HTP)
- Continuum Distortion: Alteration of transition zone between ligament, tendon, other connective tissue and bone (CD)
- Folding Distortion: Three dimensional alteration of fascial plane (FD)
- Cylinder Distortion: Overlapping of cylindrical fascial coils (CyD)
- Tectonic Fixation: alteration in ability of fascial surfaces to glide (TF)

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Triggerband

- Etiology: Distorted banded fascia
- Verbal Symptoms: pulling/ burning
- Gesture: 1 or multiple fingertips sweeping motion along a linear pathway
- Tx: Triggerband technique: use the thumb to iron out the fascial distortion.

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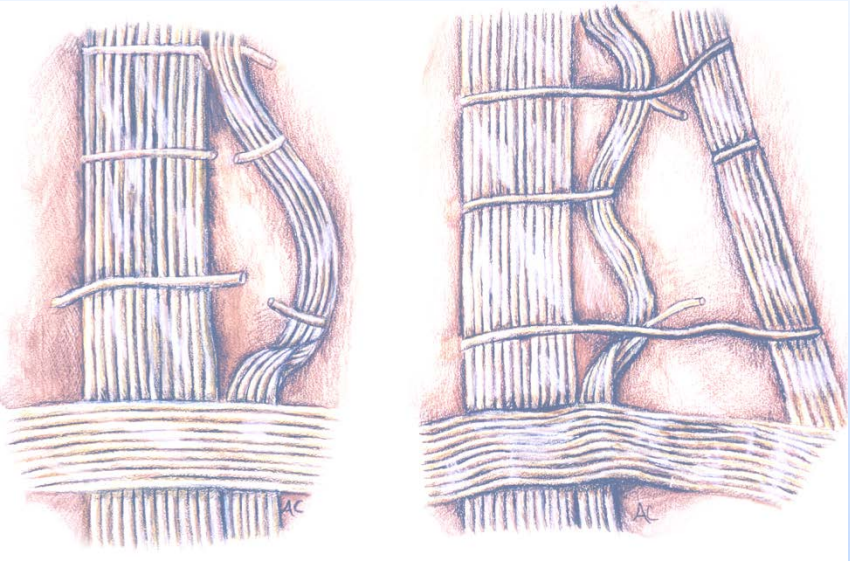
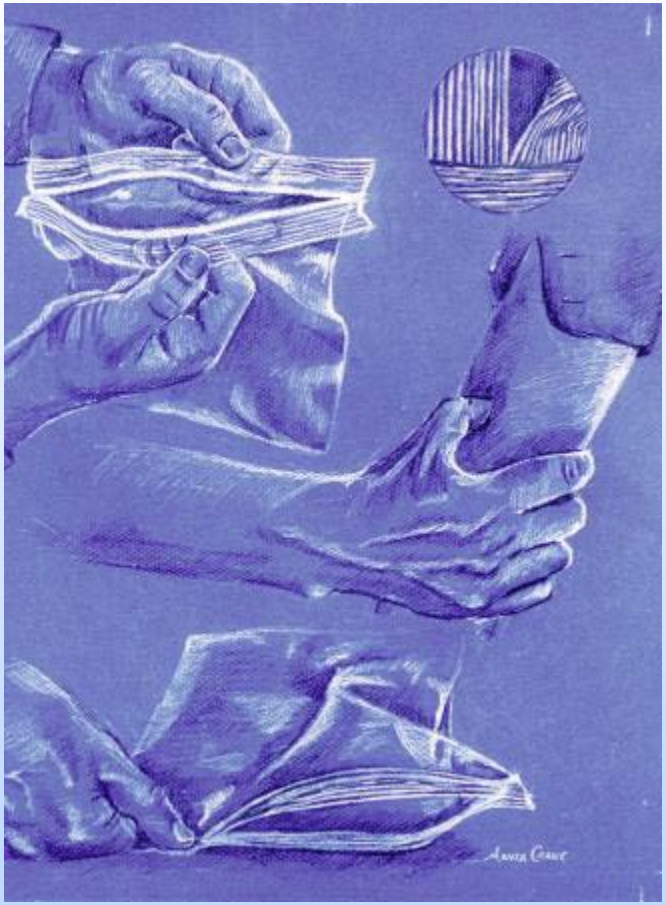
Triggerband





Herniated Trigger Point(HTP)

- Etiology - protrusion of tissue through fascial plane
- Gestures- pushes thumb, fingers, or knuckle into protruding tissue
- Verbal Symptoms: **ache** between neck & shoulder (SCHTP), **aching** pain in buttock (bull's eye), flank **aching**/renal colic (flank HTP)
- Tx - Herniated Triggerpoint Therapy push tissue back through fascial plane

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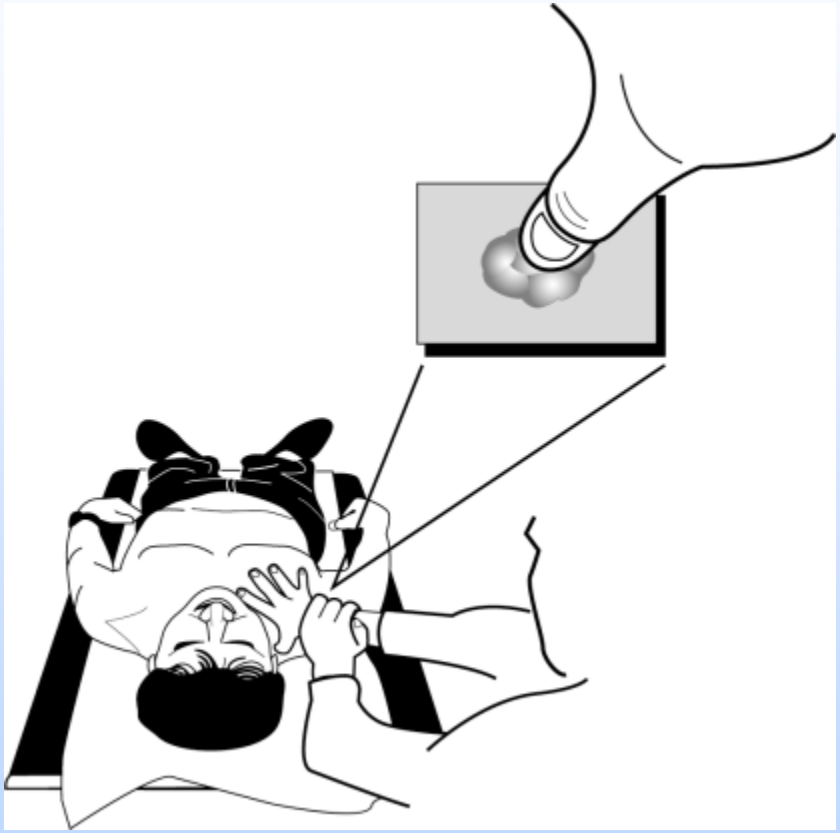
HTP

SCHTP

- Number One cause of loss of:
- – 1. Shoulder abduction
- – 2. Shoulder internal rotation
- – 3. Cervical rotation



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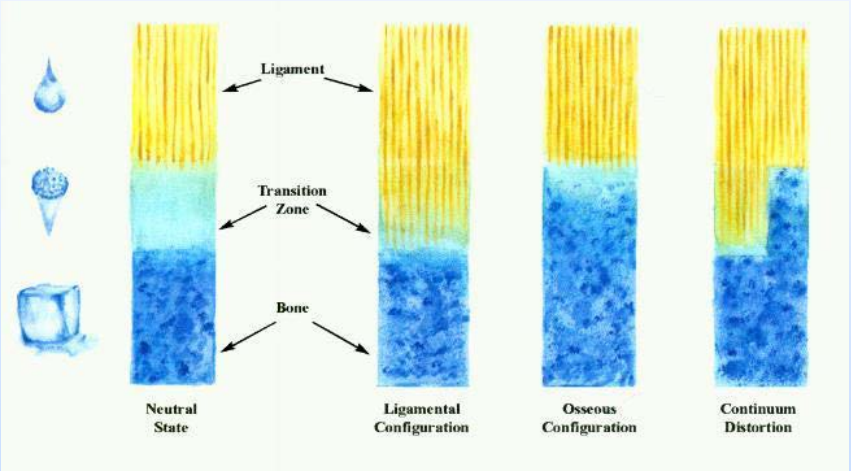
Continuum distortion

- Alteration of transition zone between ligament, tendon, or other fascia and bone



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Continuum Distortion

- Etiology - alteration of transition zone between bone and ligament or tendon
- Gesture- points to *spot of pain* with one finger
- Verbal Symptoms - hurts in one or more spots
- Tx - Continuum Technique
  - apply force with thumb to force transition zone to shift

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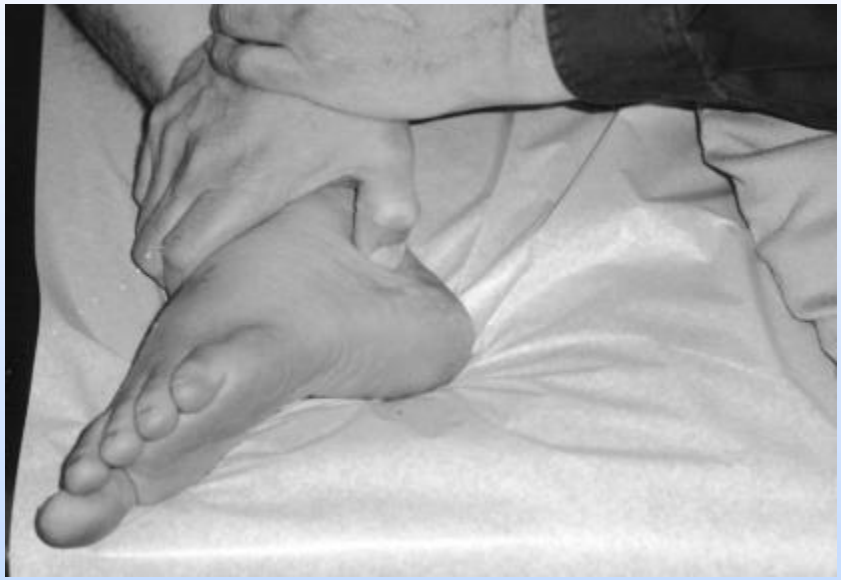
Continuum Distortion



Folding Distortion

- Etiology - three dimensional alteration of fascial plane
- Gesture- places hand over affected joint, or pushes fingers into intermuscular septum or interosseous membrane
- Verbal Symptoms - aches deep in joint or feels unstable, can’t identify where it is exactly.
- Tx - Folding Technique

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Folding

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Two types of folding

- Unfolding - Folding distortion in which folding fascia has unfolded, twisted, and can’t refold completely
- Refolding - Folding distortion in which folding fascia is compressed, twisted can’t unfold

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Folding Injuries

Folding Treatment

- Unfolding: Traction with tug or thrust, traction with myofascial unwinding. Inversion therapy
- Folding: compression with thrust, may resolve on their own with ambulation, sometimes wearing a heavy back pack

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Cylinder Distortion

- Etiology - tangling of cylindrical coils of superficial fascia
- Gesture- repetitively squeezes affected body part, sweeping motion with palm over area
- Gesture- often bizarre; patients have difficulty pinpointing source of pain and pain jumps from one location to another; numbness or paresthesia's, pain out of proportion to exam
- Tx - Cylinder Technique
- Double Thumb, squegee, suction cups, pet comb, chip clips, are used to untangle cylindrical coils

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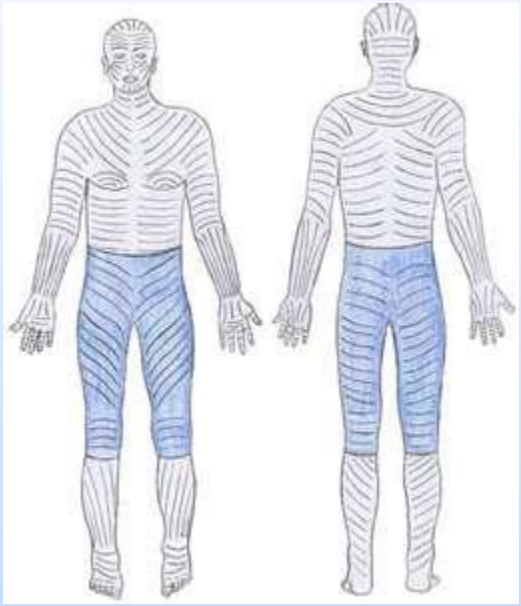
Superficial Fascia



Cylinder

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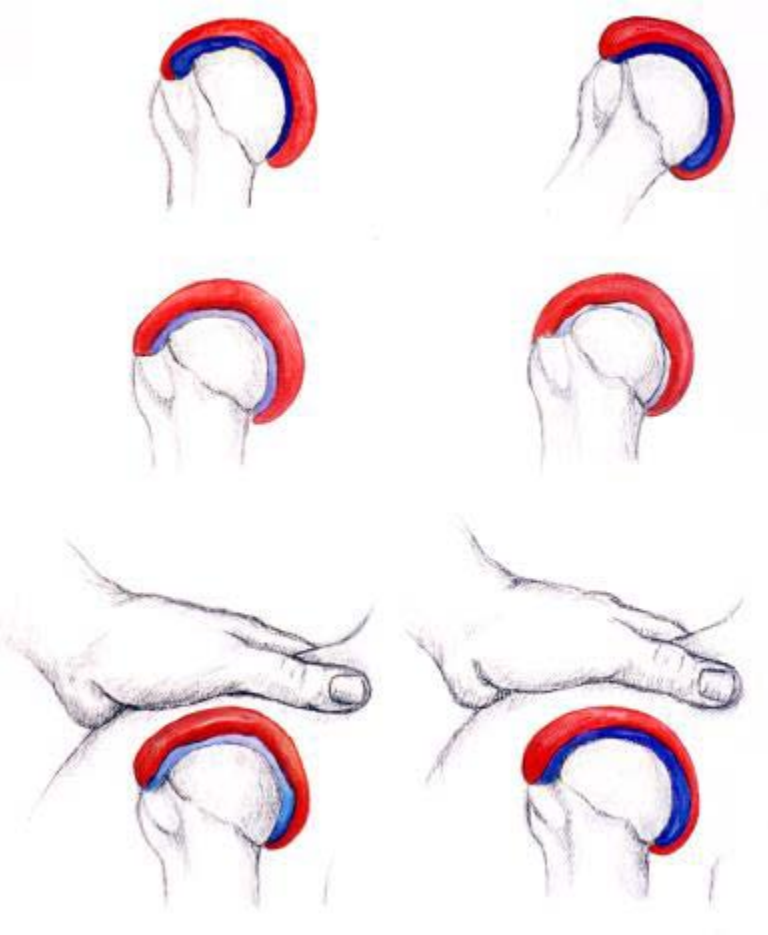
Tectonic Fixation



- Fascial Surfaces unable to glide

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Tectonic Fixation

- Etiology - inability of fascial surface to glide
- Gesture- stiff joint movement
- Verbal Symptoms – stiffness, “feels like it needs to pop”
- Tx - Tectonic Technique
  - pump fluid through joint and force fixated surface to slide. Also do this with injection.

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Tectonic

- This is where HVLA techniques come in to play to help mobilize the joint
- Hydrodisection in a frozen shoulder helps with tectonic fixations in the shoulder.
- Manual technique involves a slow rhythmic pumping to move synovial and lymphatic fluids.

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Fascial Distortion Model

- Side effects: pain, bruising
- Ice is recommended post treatment
- Use it within the greater osteopathic model is my recommendation

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Case F/U

- September 2015 had surgery for right perineal mass

(hematoma) after birth of 2nd child. Post Op pain and was switched to oxycodone as she had N/V with hydrocodone.

- Still had low back pain and now pelvic pain
- December 2015 was hit while in her car in grandmothers garage by drunk driver(showed pics)
- Pain worsened now more in cervical and thoracic, gave robaxin, oxycodone 5mg bid

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Case

- ORT is low risk, UDS positive for meds she's on
- Controlled substance agreement signed, opioid dosing is low
- Uses 1 pharmacy.
- AZCSPMP is non worrisome
- Never fills early
- Regular office visits
- Affect is good, no adverse effects, no aberrant behavior, adjunctive tx: OMT/stretching, good analgesia, physically active

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Case

- June 2016, monthly OMT, oxycodone, occasional NSAID and Robaxin.
- Discussed gabapentin and lyrica, breast feeding still so does not want to due to limited human data.
- October 2016 Patient struck by car bumper and nocked her over on left side. Now with left knee and b/l hip pain.

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Case

- OMT and medications and she returns to baseline neck and back pain issues. MRI of the lumbar spine/knee normal
- October 2017 presents after being at the Las Vegas shooting. In acute shock, minimally verbal. “ Girl right next to me was shot in the chest there was blood everywhere.” Multiple abrasions after father pulled her down and rushed her to a safe place.

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Case

- Meds still in Vegas and lost her wedding ring.
- Luckily 2 children and husband not at concert with her
- Has not slept in a couple days
- Terrified of needles or would have done auricular acupuncture(NADA protocol). Cranial osteopathic treatment to calm ANS.
- Gave ambien to help her process with sleep, pt will see psychology but still too acute to do at this point.

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Case

- Spoke with psychiatry and they recommended prazosin
- More verbal at f/u, having nightmares started prazosin 1mg. Repeated cranial treatment
- Sees first psychologist, not great fit. Increased dose of prazosin to 2mg, watched for hypotension
- 2nd psychologist better, does EMDR

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Case

- Dec 2017 changes to less stressful position.
- Jan 2018: doing much better still using prazosin 2mg at night, seeing psychology
- Once monthly OMT appointments, no change in oxycodone dosing or frequency

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Conclusions

- Opioids have a defined role for some patients
- Follow a standard process to prevent abuse
- Keep up to date with changing guidelines and regulations
- Don’t give to patients at risk for abuse
- Keep doses low and for the shortest duration
- Use adjunctive treatments and alternative medications when possible

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Conclusions

- Treat the patient not the pain! Pain is a symptom not a diagnosis
- Treat Body, Mind(mental and emotional), and Spirit
- Be open minded to alternative treatment options if they are safe.
- Use your osteopathic training
- Consider training in the fascial distortion model
- https://www.thefdmacademy.com/

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