Integrating Osteopathy into Primary Care for the Underserved: The Power of Touch

Olympia Kabobel DO, MPH
Michelle Yim DO, MPH
Armaity V. Austin, MD, MPH, FAAFP, ABoIM

Break-out Objectives

- Understand what a Doctor of Osteopathic Medicine is, and how that differs from traditional allopathy
- Understand the basic tenets that serve as the foundation for osteopathic medicine
- Understand the 5 Osteopathic Models
- Appreciate the importance of touch in primary care for the underserved
- Participate in Osteopathic Touch/Palpation activity
- Provide a hands on introduction to a variety of osteopathic manipulative medicine techniques
- For 5 common primary care problems the learner will understand
    - Hands on practice with an applicable Osteopathic Medicine Technique
    - Contraindications to Treatment
    - How to explain proposed mechanism of action to patients
    - Recommendations for “at home” treatment
- Learn where to refer patients for osteopathic treatment

What is Osteopathy?

Synonymous to “osteopathic medicine”

Developed by Andrew Taylor Still, MD, DO

“Patient-focused approach to health care” that incorporates patient’s physical, personal, and spiritual well being while also acknowledging that the body is more than just a sum of its parts

The assisting of the patient’s innate capacity to heal by addressing the interrelationship of the body’s nerves, muscles, bones and organs

What is Osteopathy by American Academy of Osteopathy <https://www.academyofosteopathy.org/what-is-osteopath>
https://www.aacom.org/docs/default-source/become-a-do/aacom-omm-one-pager_v7-(1).pdf

Tenets of osteopathic medicine

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

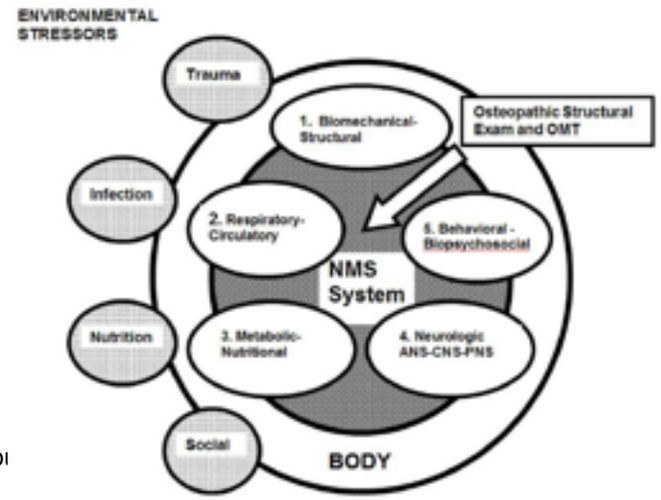
Seffinger MA. Development of osteopathic philosophy. In: Ward RC, editor. Foundations for Osteopathic Medicine. Baltimore: Williams & Wilkins; 1997. pp. 3–12.

5 Osteopathic Models

1) Respiratory- circulatory
2) Biomechanical- structural**
3) Metabolic - nutritional
4) Neurological
5) Behavioral - biopsychosocial

How do these models interact and contribu

with the body and these models to facilita



Model - These models articulate how a DO seeks to influence a patient's physiological process. How do these models interact and contribute to the patient's health. Each model provides a "lens" through which the patient can be viewed, diagnosed and treated.

Respiratory circulatory: improve diaphragmatic restrictions in the body. All "transverse Restrictors of motion, addressing venous, lymphatic and CSF drainage

Structural - biomechanical adjustment and mobilization of joints, address restriction in the myofascial connective tissues, bony and soft tissues, enhance motion

Metabolic: enhancing self regulatory/self healing mechanisms, balancing body's energy expenditure and exchange, enhance immunity, endocrine and organ function. Not just manipulation: includes nutritional counseling, diet and exercise advice

Neurological: attaining autonomic balance, address pain circuits (aka Facilitated segments), decreased afferent signals to relieve pain (CS)

Behavioral: Improve the biological, psychological and social components of the health spectrum, looking at emotional balancing and compensatory mechanisms

https://www.aacom.org/docs/default-source/insideome/got2011ed.pdf

http://files.academyofosteopathy.org/AAOJ/2014/AAOJ_March2014pp12-20.pdf

The power of touch in a primary care visit

- Different types of touch in a visit
  - Expressive touch - spontaneous contact, not “required”
  - Procedural Touch - examination, stethoscope, reflexes
- An important form of nonverbal communication
  - Influences interpretation of verbal messages, and may affect pati
    adherence to treatment, health service utilisation, and appointment keeping.
- One study showed that all patients reported expressive touch improved communication quality between provider and patient

‘[Being touched made me feel ...] that they understood, but that they really understood, they weren’t just going through the motions of saying “I understand”. You get some GPs that say “yes I understand” and you can tell by the voice, they’re going through the motions — these don’t.’

‘Even if it’s just putting a hand out ... I think touch, often it can say much more than words, it can be very reassuring.’

Not well studied, however the qualitative evidence available states that patients perceive expressive touch as a positive, and an important form of nonverbal communication

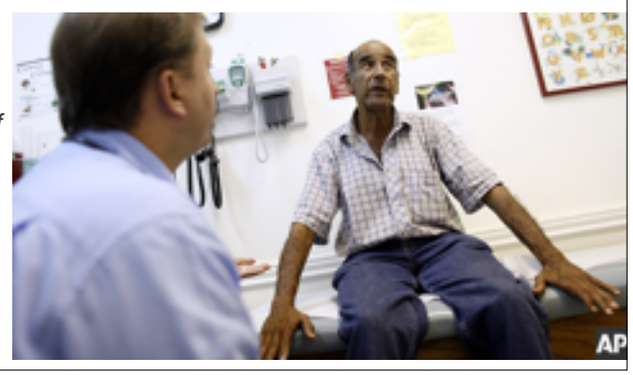
Why do I put this information on a slide? Because touch is important. This study just looked at expressive touch, something that all providers (all human beings) are in fact qualified to include this in their exam/visit. Qualitatively, touch could impact how your patient perceives what you say, how they follow up or follow your advice.

Cocksedge, S., George, B., Renwick, S., & Chew-Graham, C. A. (2013). Touch in primary care consultations: qualitative investigation of doctors’ and patients’ perceptions. *British Journal of General Practice*, *63*(609), e283-e290. doi:10.3399/bjgp13x665251

Are we losing touch with our patients?

- Average primary care visit 10-15 minutes
- Multiple studies show a decline in use of physical exam skills
  - higher reliance on labs and diagnostic studies
  - association with increased diagnostic errors, unnecessary work up and cost.
- Lower income patients report feelings of being treated with less respect because of income, insurance status and race

He [the doctor] sits over there, and I sit over here, and he's just writing. He doesn't look up at you, he don't… nothing. You want interaction with your doctor because if he's just … writing some prescriptions and saying what he wants, did he really see you? … He'd tell me I've got high blood pressure; he'd write me three different prescriptions, man. They just sit in my purse. … ***You never even came over here and touched me, man, how can you tell me that's what I really need?***



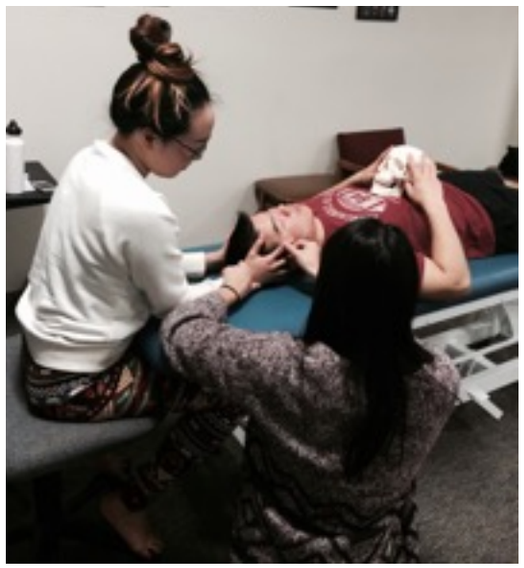
In a single 10-15 minute visit a PCP will: address a median of 6 topics (5 minutes devoted to the longest topic), Documentation occuring in and out of the exam room, be subjected to numerous time time demands (extensive history taking, computer use, multiple topics)

Tai-Seale, M., McGuire, T. G., & Zhang, W. (2007). Time Allocation in Primary Care Office Visits. *Health Services Research*, *42*(5), 1871-1894. doi:10.1111/j.1475-6773.2006.00689.x

Some studies have shown that all of this may contribute to overall lower quality of care in a vulnerable population

Min, L. C., Reuben, D. B., MacLean, C. H., Shekelle, P. G., Solomon, D. H., Higashi, T., … Wenger, N. S. (2005). Predictors of Overall Quality of Care Provided to Vulnerable Older People. *Journal of the American Geriatrics Society*, *53*(10), 1705-1711. doi:10.1111/j.1532-5415.2005.53520.x

Excerpt from the interviews from: Robert Wood Johnson Foundation's Right Place, Right Time initiative started in January 2016, surveying low income patients, non-English speaking patients to see what their urgent concerns about the healthcare system are



Osteopathy provides a pathway for physicians to incorporate both touch and presence, something that patients, especially low income, underserved patients are desperately seeking

Albert Verghese in his essay on reform in medicine and what modern medicine is losing through stated this: *There are a few things that are timeless in medicine, unchanged since antiquity, which we can keep front and center as we bring about reform. One is the simple truth that patients want us to be more present. We as physicians want to be more present with the patient, as well, because without that contact, our professional life loses much of its meaning. It is a one-word rallying cry for patients and physicians, the common ground we share, the one thing we should not compromise, the starting place to begin reform, the single word to put on the placard as we rally for the cause. Presence. Period.*

A patient survey was used to measure and explain patient satisfaction and clinical outcomes associated with osteopathic manipulative treatment (OMT). Participating in the survey were 459 people who attended an ambulatory OMT specialty clinic from March 1998 through September 1998 and who had received OMT there at least twice previously. Standardized patient satisfaction scores were greatest for overall performance (0.61 +/- 0.29) and interpersonal manner (0.61 +/- 0.24

https://www.ncbi.nlm.nih.gov/pubmed/11837337
https://catalyst.nejm.org/electronic-health-record-tale-two-visits/

Quick intro to palpation activity

- Ask for permission
- Focus attention
- Start at skin, moving to fascia, muscle and bone
- Use a “soft”, relaxed hand
- Use light touch

“each tissue is composed of cells and each cell is a living thing. Living things prefer persuasion to force; consideration to trauma, intelligence to ill-expended energy. It is better to work with the tissues rather than at the tissues. Nature has her regards and also her penalties for the manner in which lesions are treated. As osteopathic physicians, our highest duty is to cooperate with nature.”

George V. Webster, D.O.

Adapted from Perception and Intro to Palpation Dr. Rebecca Giusti Western University COMP

We will be palpating each other’s forearms.
First start with permission, then focus attention (this could be done with deep breathing, closing eyes or narrowing gaze)
Palpating the deeper layers of the body; skin, fascia, muscle, bone, joint, viscera unmasks the health of the tissue to the examiner.

Common Primary Care Problems

1) Upper respiratory infection
2) GI upset
3) Low back pain
4) Neck pain, headache

Table 11. Twenty leading principal reasons for office visits, by patient's sex: United States, 2015

Principal reason for visit and RVC code*		Number of visits in thousands* (standard error in thousands)	Percent distribution (standard error of percen
All visits		990,808 (49,038)	100.0 ...
Progress visit, not otherwise specified	T800	140,842 (12,765)	14.2 (1.2)
General medical examination	X100	75,412 (6,690)	7.6 (0.6)
Medication, other and unspecified kinds	T115	35,232 (7,003)	3.6 (0.6)
Counseling, not otherwise specified	T605	26,528 (5,495)	2.7 (0.5)
Postoperative visit	T205	25,441 (2,679)	2.6 (0.3)
Cough	S440	20,984 (2,718)	2.1 (0.3)
Gynecological examination	X225	20,735 (4,607)	2.1 (0.4)
Prenatal examination, routine	X205	18,152 (4,460)	1.8 (0.5)
Knee symptoms	S925	16,241 (2,629)	1.6 (0.3)
Back symptoms	S905	15,875 (3,701)	1.6 (0.4)
Hypertension	D510	†15,762 (4,820)	1.6 (0.5)
For other and unspecified test results	R700	15,159 (3,625)	1.5 (0.3)
Stomach and abdominal pain, cramps and spasms	S545	15,026 (2,796)	1.5 (0.3)
Well baby examination	X105	13,217 (2,019)	1.3 (0.2)
Shoulder symptoms	S940	†12,619 (4,604)	†1.3 (0.4)
Diabetes mellitus	D205	12,432 (2,606)	1.3 (0.3)
Skin rash	S860	9,464 (1,373)	1.0 (0.1)
Preoperative visit for specified and unspecified types of surgery	T200	9,443 (1,424)	1.0 (0.1)
Symptoms referable to throat	S455	9,346 (2,021)	0.9 (0.2)
Other special examination	X240	9,092 (1,473)	0.9 (0.2)
All other reasons		473,807 (24,570)	47.8 (1.2)

St. Sauver, J. L., Warner, D. O., Yawn, B. P., Jacobson, D. J., McGree, M. E., Pankratz, J. J., … Rocca, W. A. (2013). Why Patients Visit Their Doctors: Assessing the Most Prevalent Conditions in a Defined American Population. *Mayo Clinic Proceedings*, *88*(1), 56-67. doi:10.1016/j.mayocp.2012.08.020

U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, & National Center for Health Statistics. (2015). *National Ambulatory Medical Care Survey:2015 State and National Summary Tables*. Retrieved from https://www.cdc.gov/nchs/data/ahcd/namcs_summary/2015_namcs_web_tables.pdf

Disclaimer

- This is a hands on osteopathic activity, designed to give you an introduction to a variety of osteopathic medicine techniques and thinking
- Remember that only a licensed DO is qualified to perform these techniques in a patient care setting
- Because this is a quick introduction: we are just talking about osteopathic techniques, complete osteopathic treatment requires osteopathic examination/diagnosis (with evaluation pre and post-treatment)
- We have provided “at home recommendations” which can be given to the patient to try to target areas usually restricted in each clinical situation

Remember that we are treating the patient, not the disease. So evaluation of the body pre-during and post treatment is essential in osteopathic treatment

Low back pain

Lower back pain is the 5th most common reason for all physician visits in the US. Majority (85%) of patients are diagnosed with “non-specific LBP” at the first clinical visit:
-usually prescribed anti-inflammatories (although DOs practicing osteopathic medicine are less likely to prescribe these)
-light stretching and exercise programs are discussed
However interestingly, Individuals with higher annual income appear more likely to believe that one should stay active during an episode of LBP. Combining our knowledge about the importance of touch that can affect patient “compliance” Treating an individual with OMT or any sort of therapeutic touch may increase stretching

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5445411/

Diagnosis and Treatment of Low Back Pain: A joint Clinical Practice Guideline from the American College of PHysicians and the American Pain Society (Annals of Internal MEdicine) Roger Chou Et Al

Soft Tissue Technique

- Direct and passive, addressing muscular and fascial structures of the body, as well as associated neural and vascular elements
  - lateral/linear stretching, deep pressure, traction/separation of muscle origin and insertion
  - Monitoring tissue responses with palpation
  - Applied in slow rhythmical manner with low intensity over time to obtain “softening of the tissues”
- Proposed Mechanism of Action
  - Soft tissue techniques relax hypertonic muscles with sustained pressure and stretch
  - Alter afferent information from stretch receptors in tendons and muscle spindles
  - Increasing blood flow to remove toxic metabolic waste
  - Separate connective tissue/break crosslinks with this pressure, increasing water content in the the connective tissue matrix (altering fascial structure)

Let’s discuss the first, and easily accessible osteopathic technique, used commonly in acute LBP clinical situations
-direct (meaning that we address the affect muscles ligaments and fascia towards their direction of resistance
-passive (operator treats without patient assistance)
-can conceptualize as “massage”

When treating a patient manually for the purpose of soft tissue relaxation, the following apply:
a) The force used should be applied slowly, with low intensity, and of sufficient duration to obtain the desired tissue response (which often involves a fatigue effect on the muscle). It should also be released slowly.
b) The positioning should not be painful or uncomfortable to the patient.
6) The tension or pull is applied gradually and then is slowly released as stretch of the tissues (relaxation) is sensed by the physician. Pressure or tension is then re-applied rhythmically at the same or another point or area. A counter pressure can also be used to increase effectiveness.
7) Do not allow the hand or fingers to slide over the skin

What is this palpable warmth that we are monitoring for?
Figure 3
10 cycles of loading and unloading, stretching/relaxing a rat tendon. Notice that the cycles are spreading out over the strain portion of the graph, indicating that the final lengthening of the tissue occurs at a rate and to an extent less than during deformation or loading, indicating a dissipation of mechanical energy. Look at how at the 10th cycle, less load is needed for elongation

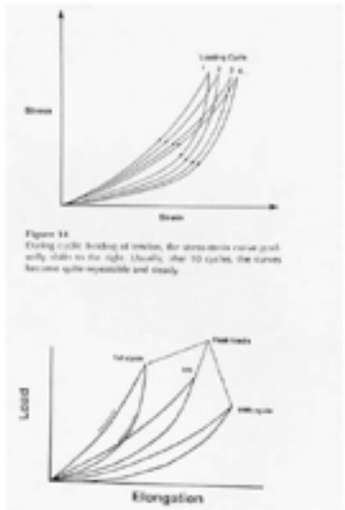
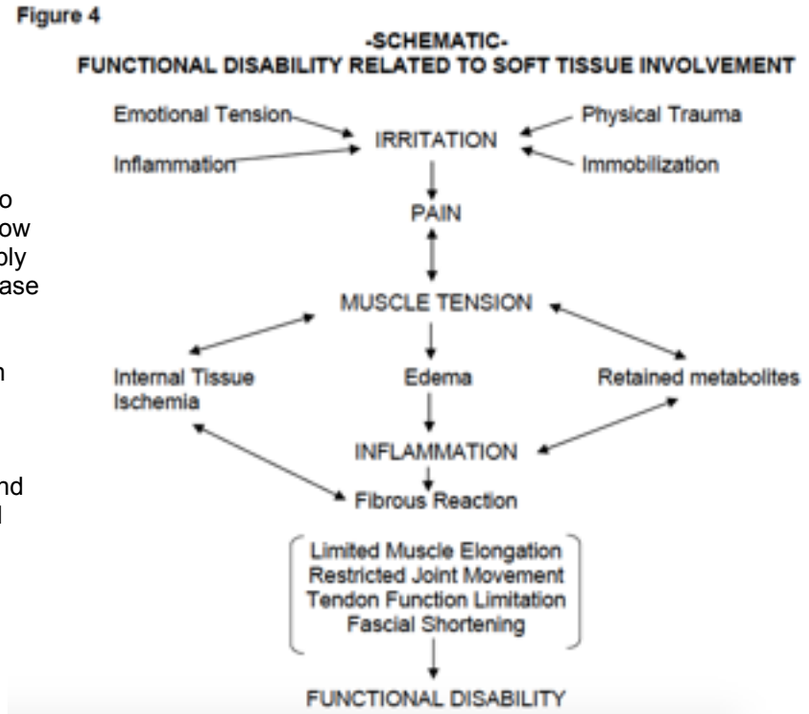


Fig. 3 Hysteresis in loading and unloading

How does this work?

- More than 85% of patients who present to primary care have low back pain that cannot be reliably be attributed to a specific disease or spinal abnormality
- **Traction or parallel traction**: longitudinal stretching of origin and insertion
- **Kneading**: rhythmic lateral stretching in which origin and insertion are held stationary and the central portion is stretched like a bowstring
- **Inhibition**: sustained deep pressure over a hypertonic myofascial structure

Figure 4



Before we talk about how soft tissue technique addresses lower back pain, let's discuss the pathophysiology behind LBP and functional limitations.

Remember that all treatment begins with a complete history and physical exam, with special consideration to the red flag symptoms of LBP (fevers weight loss neurological symptoms etc)

Osteopathic medicine addresses (in the mechanical sense) fascial shortening and limited muscle elongation, restricted joint movement, tendon function limitation

Contraindications (mostly relative):
-patient refusal (absolute)
-disorders that would preclude skin contact (contagious, burns etc)
-nec fasc
-hematoma or DVT

Prone Pressure with Counter Leverage

- Stand contralateral to the affected side
- One hand contacting anterior superior iliac spine
- One hand over the lumbar paravertebral muscles (heel of hand)
- Lift the L ASIS posterior medially
- Simultaneously use the hand over the lumbar paravertebral muscles to apply anterior lateral pressure, laterally bowstringing the muscles
- Repeat several times in a slow rhythmic fashion

Let’s practice!

Home Recommendations for patients

LOW BACK STRETCH (Multifidus, Rotatores, Obliques and Piriformis weakly)

1. While keeping your right shoulder on the mat, rotate your pelvis and low back and pull your right knee toward the left side.
2. Use your left hand to pull the knee a little farther. Hold 30 seconds and relax.
3. Repeat on the other side.

Important to discuss with patient's the concept of "tissue speed" and even consider rhythmic oscillation in this stretch for simulation of soft tissue technique

OMT in conjunction with a stretching and strengthening program will facilitate the patient's progress. The physician and the patient working together will optimize the healing process and increase the likelihood of returning the patient back to a healthy, productive and meaningful life.

Stretching should have 2 phases:
Start: 10-30 seconds gentle comfortable relaxed stretch, begin to reduce sympathetic muscle tension and readies the tissues for lengthening, moving at tissue speed
Lengthening: Moving farther into the stretch, decreasing muscle tension and increase ROM

Throughout the process focus on breathing: The patient should not hold their breath while stretching. Slow, deep breathing should help them to reduce sympathetic tone for more muscle relaxation which will facilitate the lengthening of the muscles.

Headache

CDC Headache Disorders - Primary Headaches: Tension Type, Cluster, Migraine, Medication Overuse

It has been estimated that almost half of the adult population have had a headache at least once within the last year

In the Global Burden of Disease Study, updated in 2013, migraine on its own was found to be the sixth highest cause worldwide of years lost due to disability (YLD). Headache disorders collectively were third highest.

Tension-type headache (TTH) most common primary headache disorder

As headache disorders are most troublesome in the productive years (late teens to 50s), estimates of their financial cost to society – principally from lost working hours and reduced productivity – are massive. In the United Kingdom, for example, some 25 million working- or school-days are lost every year because of migraine alone; this financial cost may be matched by TTH and MOH combined.

https://www.who.int/news-room/fact-sheets/detail/headache-disorders

Myofascial Release (MFR)

- Fascia: Complete separate system with its own blood supply/ lymphatic drainage and innervation
  - Largest organ system of the body
  - Connective tissues + Extracellular Matrix
  - Continuous, surrounds everything, nerves, muscles ligaments, organs
- Goal is to engage with resistant/tight myofascial tissues using continuous palpatory feedback to achieve free movement of tissues
  - Direct: Loading tissue with constant force (along the restrictive barrier) until tissue tension release occurs
  - Indirect:Guiding dysfunctional tissue along the path of least resistance until free movement is achieved

Myofascial release is a technique commonly used when addressing “headache” osteopathically

- What is fascia?

o A complete system with blood supply, fluid drainage & innervations
Thus, fascia comprises the largest organ system in the body
o Composed of irregularly arranged fibrous elements of varying density
o Involved in tissue protection & healing of surrounding systems
Fascia surrounds everything, and is the extracellular matrix and ground substance which all parts of our body develops embryologically

Myofascial release (MFR) is a passive direct or indirect osteopathic manipulative technique in which the physician identifies resistant or tight myofascial tissues in a particular body region or related to a localized muscle spasm and engages it with continuous palpatory feedback to achieve free movement of those tissues and/or other related structures.
Direct MFR: involves engaging a myofascial restrictive barrier loading the tissue with constant force until the tissue tension release occurs.
Indirect MFR: involves guiding the dysfunctional tissues along the path of least resistance until free movement is achieved.

Fascial sweater concept: injury to the fascia can cause venous/lymphatic congestion, as well as alteration of afferent (signals to the brain) predisposing an injured area to chronic pain and dysfunction. Consider as well that distortions in one fascial area, could lead to distortions in other areas (migrating pain after injuries)

Chila, A. G., Foundations of Osteopathic Medicine 3rd Ed. Lippincott Williams & Wilkins. Philadelphia, PA. (2011).

Myofascial Release Osteopathic Manual

https://www.anatomytrains.com/fascia/

Myofascial release continued

- Proposed mechanism of action
  - Direct MFR - continued pressure causing deformation in the tissues
    - Use: traction, compression and twisting
    - Plastic changes cause a release of stored energy (can feel palpable warmth with this tissue change)
    - Changes the fluidity and composition of connective tissue/extracellular matrix, increasing compliance and plasticity
    - Alter afferent information from proprioceptors in myofascial tissues, change in resting tension in the muscle
  - Indirect: Movement of tissues into position of ease for all available planes, leading to tissue release “fascial unwinding”
- MFR of the neck and head has been shown to decrease headache frequency, pain intensity and over the counter medication use

Proposed Mechanism of Action:
There are mechanical soft tissue biomechanical principles as well as neuroreflexive principles used to explain the mechanism of action in MFR procedures.
1) Direct MFR techniques cause continued deformation (creep) in the myofascial tissues by using a combination of traction, compression, and twisting maneuvers. The plastic changes (creep) are associated with the release of bundled energy, and the formation of electronegative charges along the lining of the fascial sheets (piezo-electric effect) which stimulates the accumulation of fibroblasts, glycosaminoglycans (GAGs), the formation of free fluid and lubrication between the fascial layers permitting both freedom of movement and release of circulatory restriction. The increase in GAGs and fluid content within the connective tissue matrix results in a decrease of connective tissue crosslinks, and increased compliance and plasticity of the myofascial tissues.
2) MFR techniques alter afferent information from proprioceptors in the myofascial tissues that attenuate the efferent limb of the myotatatic reflex (i.e., alpha motor neurons and gamma efferents) to effect a change in muscle or myofascial tension.

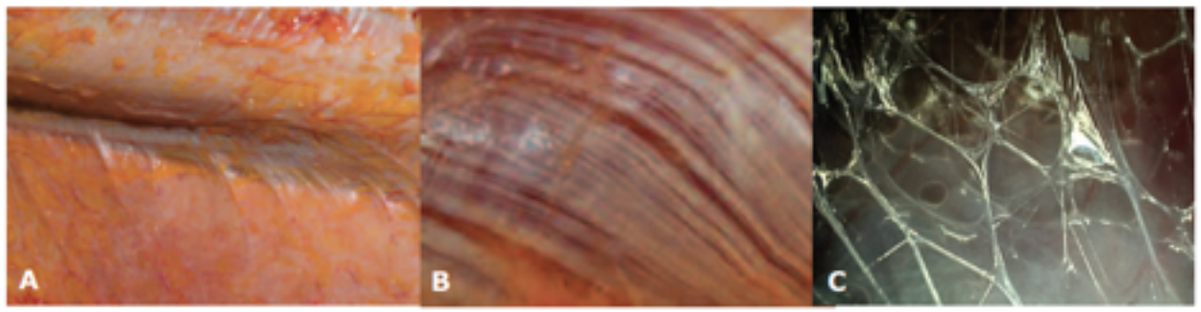
Indirect MFR: Movement of the patient by a physician into the position of ease for all available planes, following any tissue release or fascial unwinding until completed and adding if needed:
Regional compression, distraction, or torsion
Tissue inhibition or traction
Respiratory cooperation in the phase that encourages tissue relaxation
Eye, tongue, jaw, head, or limb movements
b) Direct MFR: Movement of the patient by the physician into the restriction for all available planes, applying steady force until tissue release or fascial unwinding is completed and adding if needed:
Respiratory cooperation in the phase which encourages tissue tension or binding
Regional or tissue oscillation
Isometric neck or limb movements

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5359118/pdf/jpr-10-601.pdf

Contraindications

Absolute:

1) Absence of somatic dysfunction:



A Few of the Many Forms of Fascia

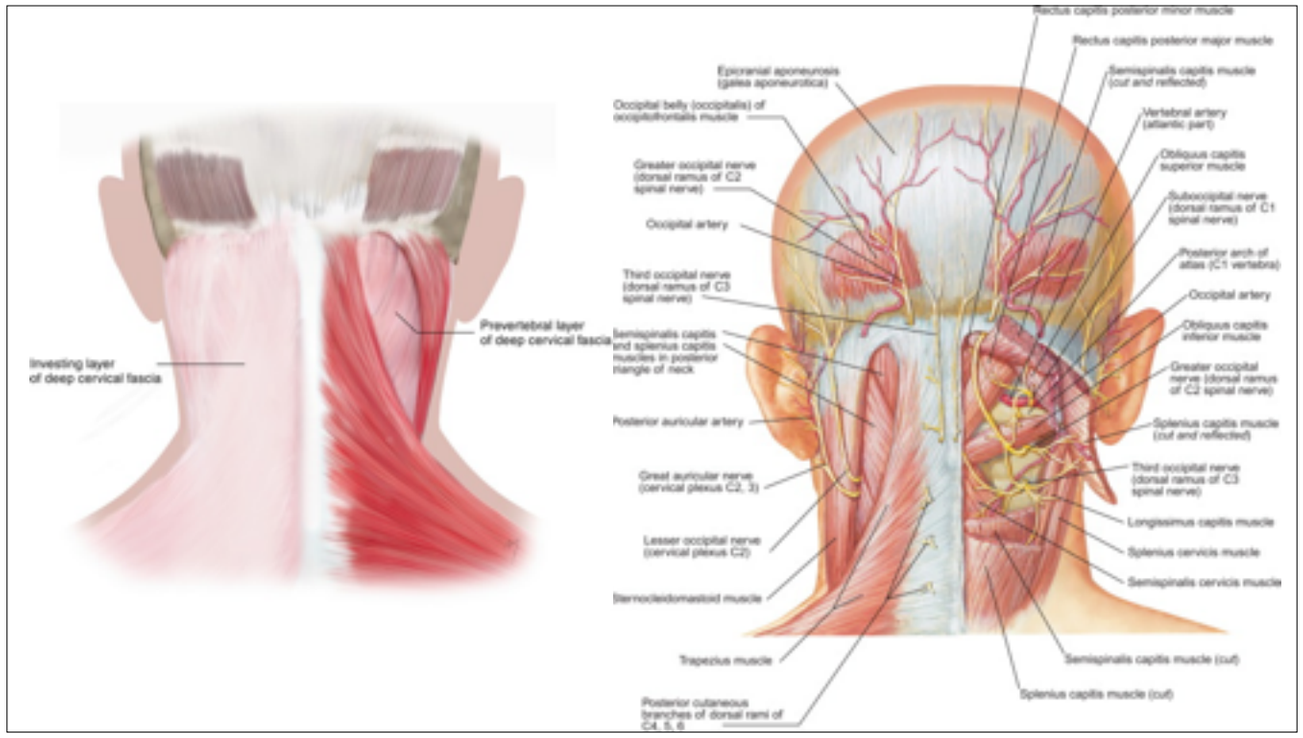
This article uses the generalized term fascia to denote the interconnected net of fibers and glue. A. Two muscles held together by "fuzz"—areolar tissue. B. The "strapping tape" nature of the fascia covering the quadriceps. C. (courtesy of Dr. J-C Guimbertau) The very delicate, gluey tissue that allows change and movement beneath our skin, between our muscles, and anywhere anatomical structures have to slide on each other.

Suboccipital Release

Now let’s try to practice

1. Sit at head of patient
2. Hold the occiput bilaterally just inferior to occiput (palms rest against the occiput and thumbs just superior to ears), you are now in contact with the suboccipital fascia
3. Feel for a restriction (can apply compression distraction counter clockwise etc movement)
4. Engage in either indirect or direct (traction/compression clockwise or counter clockwise motion)
5. Continue treatment until a palpatory sense of warmth and softening of the tissues and increased compliance is reached

Think anatomically about what is under your hands (blood vessels, nerves, muscles, fascia, ligaments, bones)


Investing layer
of deep cervical fascia
Prevertebral layer
of deep cervical fascia
Rectus capitis posterior minor muscle
Rectus capitis posterior major muscle
Epicranial aponeurosis
(galea aponeurotica)
Semispinalis capitis muscle
(cut and reflected)
Occipital belly (occipitalis) of
occipitofrontalis muscle
Vertebral artery
(atlantic part)
Greater occipital nerve
(dorsal ramus of C2
spinal nerve)
Obliquus capitis
superior muscle
Suboccipital nerve
(dorsal ramus of C1
spinal nerve)
Occipital artery
Posterior arch of
atlas (C1 vertebra)
Third occipital nerve
(dorsal ramus of C3
spinal nerve)
Occipital artery
Semispinalis capitis
and splenius capitis
muscles in posterior
triangle of neck
Obliquus capitis
inferior muscle
Greater occipital
nerve (dorsal ramus
of C2 spinal nerve)
Posterior auricular artery
Splenius capitis muscle
(cut and reflected)
Great auricular nerve
(cervical plexus C2, 3)
Third occipital nerve
(dorsal ramus of C3
spinal nerve)
Longissimus capitis muscle
Lesser occipital nerve
(cervical plexus C2)
Splenius cervicis muscle
Semispinalis cervicis muscle
Sternocleidomastoid muscle
Trapezius muscle
Semispinalis capitis muscle (cut)
Splenius capitis muscle (cut)
Posterior cutaneous
branches of dorsal rami of
C4, 5, 6

Home Recommendations for patients

NECK EXERCISES

To treat the symptoms of Migraines, Tension headaches, Insomnia, Stress, Anxiety, many cervicogenic related diagnoses. (In parentheses, the targeted muscles are listed)

FORWARD AND BACKWARD BENDING
(Suboccipital & erector spinae m's)
(Scalenes, SCM's & anterior strap m's)

1. Starting position: either standing or seated with good posture.
2. Relax neck muscles and let chin move towards chest.
3. Continue relaxing your neck for at least 60 seconds.
4. Return to starting position.
5. Next, move head backwards until mild resistance or discomfort is felt.
6. Do with mouth closed.
7. Hold for 30 seconds.
8. Slowly return to starting position.

Do 1 2 3 times once twice thrice daily

How can we address fascia at home? Emphasize tissue speed!

Stretching should have 2 phases:
Start: 10-30 seconds gentle comfortable relaxed stretch, begin to reduce sympathetic muscle tension and readies the tissues for lengthening, moving at tissue speed
Lengthening: Moving farther into the stretch, decreasing muscle tension and increase ROM

Throughout the process focus on breathing: The patient should not hold their breath while stretching. Slow, deep breathing should help them to reduce sympathetic tone for more muscle relaxation which will facilitate the lengthening of the muscles.

SIDE BENDING

(Trapezius, sup. fibers)

1. Starting position as above.
2. Stabilize shoulders.
3. Move right ear toward right shoulder.
4. Hold for 60 seconds or more.
5. Return to neutral.
6. Move left ear toward left shoulder.
7. Hold for 60 seconds.
8. Return to starting position

HEAD CIRCLES (advanced technique, not shown)

(Anterior, lateral and posterior cervical muscles)

1. Starting position as above.
2. Relax neck and allow chin to move towards chest.
3. Next, slowly rotate your head so that your right ear moves toward your right shoulder.
4. Keep moving your head in a full but relaxed head circle.
5. Once rotation is completed, then reverse direction.
6. Caution: if any discomfort or increase in pain should occur, please discontinue head circles and consult your physician.

Do 1 2 3 times once twice thrice daily

Upper respiratory infection

URI_mydoc-min.png

Lymphatic Techniques

Proposed Mechanism of Action

- Increase resorption of fluids
- Augment circulation and respiration
- Reduce fascial restrictions to improve function of lymphatic channels found in fascial layers and optimize capacity of the intrinsic lymphatic pumps

Goals of treatment

- Remove obstructions
- Stimulate proper functioning of the immune system

Contraindications

Absolute

- Anuric and not on dialysis
- Necrotizing fasciitis

Relative

- Cancer
- Osseous fracture or crushed tissue
- Bacterial infections with risk of dissemination or reactivation
- Chronic infections with risk of reactivation
- Heart failure exacerbation
- Circulatory disorders (embolism, hemorrhage) & coagulopathies

Lymph can be mobilized through two mechanisms: Intrinsic - lymph valve pumps and Extrinsic - contraction of surrounding muscles and neighboring veins. We will be showing techniques that help free extrinsic forces which can often uninhibit intrinsic forces.

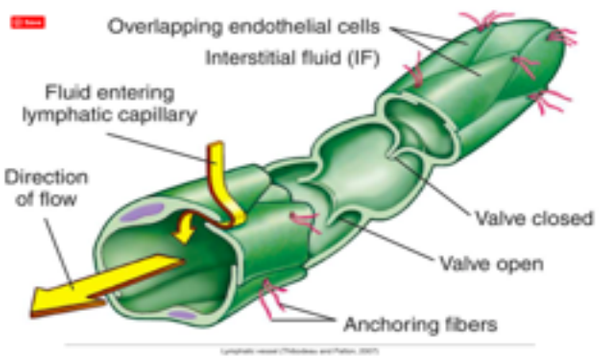
Always look at the patient as a whole. Lymphatic flow is impaired and stasis occurs with diseased or stressed tissues

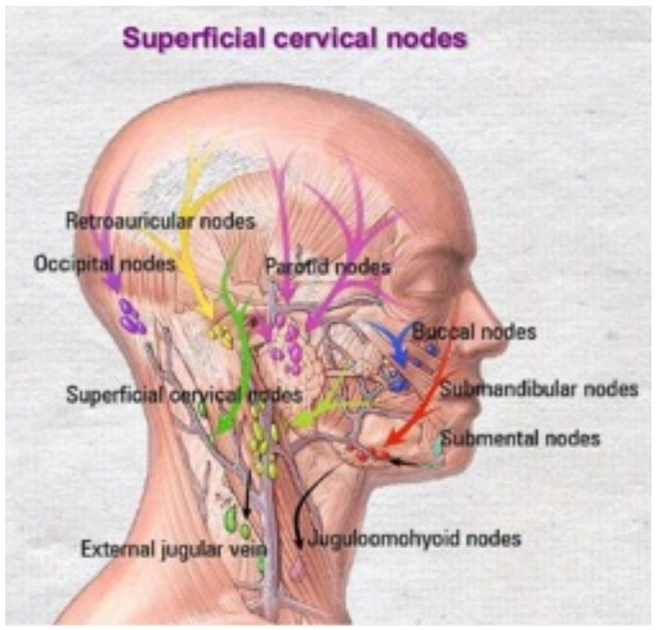
No case of known complications resulting from lymphatic drainage to date. Always use clinic judgement

Lymphatics

Physiology/function:

- Purify and cleanse tissues
- Maintenance of fluid balance within the body
- Defensive properties



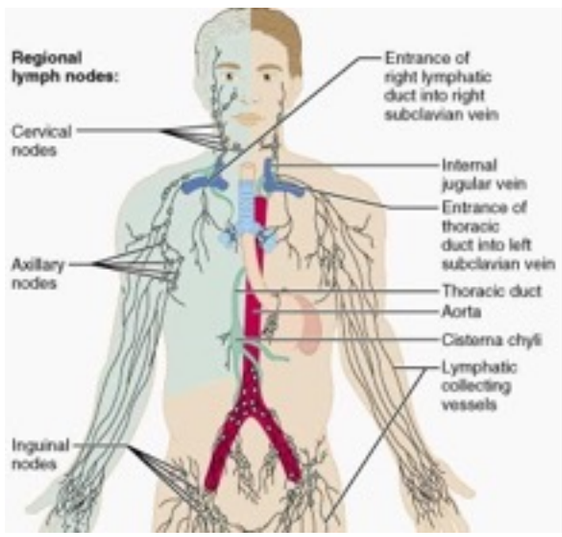


Think of the lymphatic system as the second circulatory system of the body.
Lymph nodes are organized lymph tissue dispersed along course of the lymph vessels and filter lymph. There are superficial nodes and deep nodes along the lymph vessels which work as one way valves under sympathetic autonomic control
https://medical-dictionary.thefreedictionary.com/lymphatic+vessels

lymphatic-of-head-and-neck-8-638.jpg

Order is important!

1. Thoracic inlets
    a. Left thoracic inlet: thoracic duct
        i. Drains left side of the head, neck, left arm, thorax, lower body, thoracic viscera
        ii. Empties into venous circulation at junction of L subclavian and L brachiocephalic v
    b. Right thoracic inlet: right lymphatic duct
        i. Drains right side of head, neck, right arm, right chest
        ii. Empties into jugulosubclavian junction in the anterior neck
2. Thoracic diaphragm
    a. Extrinsic pump on the cistern chili - drains lower extremities
3. Cervicals, facial



thoracic_duct.jpg

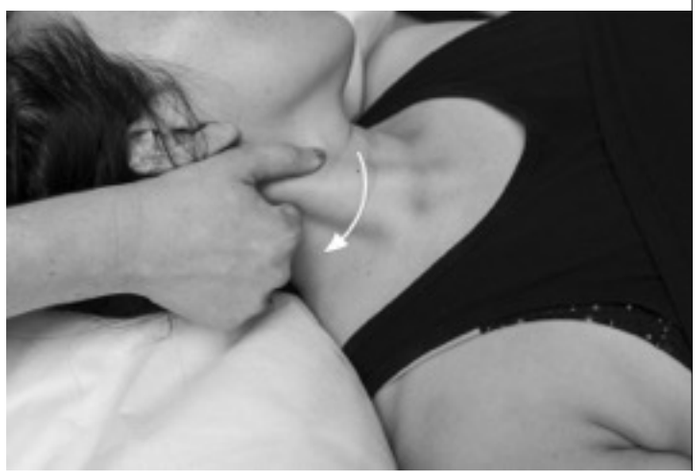
Thoracic inlet: Direct myofascial release

Initial step for lymphatic protocol and addresses the scalene muscles and cervical fascia continuations into the thorax. Start left then right.

Cervical Lymphatic Drainage Techniques

Anterior Cervical traction

- Use sternocleidomastoid muscle
- Start inferiorly, lift anterolaterally and move superiorly
- Assess for increased tissue compliance, increased tissue warmth

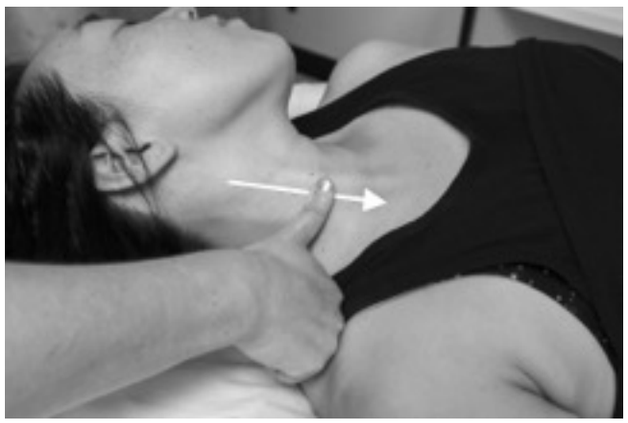


Patient will likely report sense of clearing up/ improved drainage
Caution on putting pressure on carotid bodies causing a vasovagal response

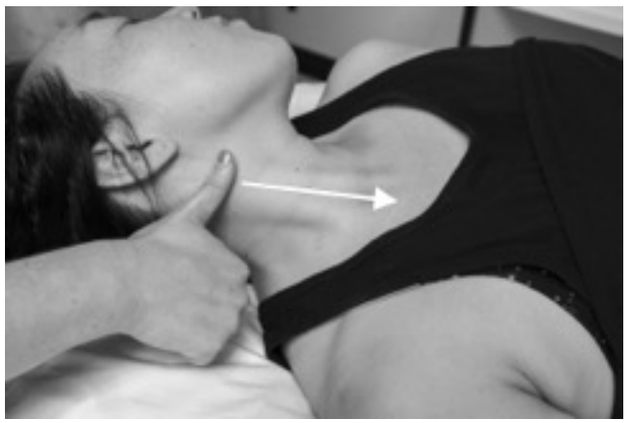
Cervical Lymphatic Drainage Techniques

Anterior Cervical Effleurage

- Use sternocleidomastoid muscle
- Start at inferior section of SCM, apply thumb pad on anterior margin of SCM - make inferior strokes slowly along SCM
- Move up to middle portion of SCM then superior portion with the same strokes
- Assess for increased tissue compliance, increased tissue warmth



Addresses the jugular lymphatic chains



Home Recommendations for patients

“Basic things that encourage your lymph to get going are movement, laughter, and deep breathing!”

Encourage your patients to try these cervical lymphatic drainage techniques on their own at home

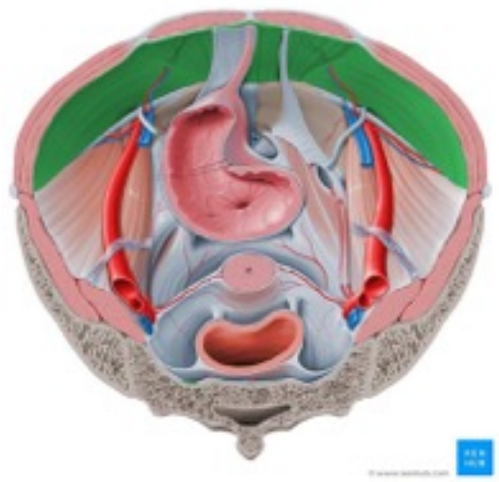
HNL-drainage-pattern.png

Gastrointestinal issues
(GERD, IBS, ileus, constipation)

Mesenteric release technique

What is visceral osteopathy? - relieves imbalances and restrictions in the interconnections between motions of the organs and structures of the body (Jean-Pierre Barral RPT, DO)

General principal: move viscera toward their fascial attachments to a point of fascial balance



https://www.ncbi.nlm.nih.gov/m/pubmed/29452579/

Technique: Take the tension off the attachment of the root of the mesentery to the posterior wall while simultaneously compressing abdominal contents to enhance venous and lymphatic drainage from bowel
Image: https://www.kenhub.com/en/library/anatomy/fasciae-and-ligaments-of-the-abdominal-wall

Goals of treatment

Improve visceral response to stress

Relieve congestion

Improve circulation

Enhance removal of waste products from tissues

Enhance relaxation and comfort of the patient

Contraindications

Absolute

- Patient refusal
- Severe pain induced by palpation or manipulation
- Medical indications for emergent workup

Relative

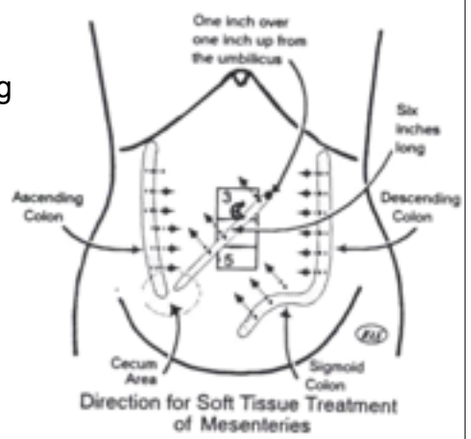
- Acute inflammation
- Perforation
- Open surgical wound
- Stent in common bile duct
- Abscess, peritonitis
- Abdominal aortic aneurysm (>6cm)

Cecum and Sigmoid Releases

Scooping motion - Scoop colon out of pelvis in line with attachments in the distal corners of the lower abdomen until resistance sensed

Allow colon to recede or recoil back

Repeat 3-4 times until colon is compliant to motion testing



Direction for Soft Tissue Treatment of Mesenteries

Images from OMM handbook

Home Recommendations for patients

Easy! You can do this on yourself!

Challenges with incorporating Osteopathy into a primary care visit

- Time!!!
- Billing
- Reimbursement
- Knowledge of both provider/patient
- Adequate follow up
- Lack of knowledge about how to refer to a DO who practices OMM

End presentation with discussion on how to incorporate osteopathy and these home remedy techniques in the clinic

Where can I find a DO? Where can I learn more?

https://cranialacademy.org/find-a-physician/

https://cranialacademy.org/patients/faq/

The Osteopathic Cranial Academy

...contemporary medicine is facing a crisis. It insists on considering a human being merely as an object of science... The medical profession is based on scientific research, and while scientific research per se is valuable, there's more to healing than obtaining the test results of modern studies. For there are aspects to humanity that science will never explain, and these include morality, love, the spirit and the soul. It is the task of our age to recognize humankind as a whole once more--each of us a being of spirit, mind, and body--without abandoning the knowledge we've gained through science...When we accomplish this, patients will no longer be regarded as if they were disease processes to be halted or problems to be solved, but as people in need of assistance in balancing their physical, mental, and spiritual dimensions. Without question this should be the new direction of modern medicine, and it is one that is long overdue.

- Dr. Robert C Fulford DO

I'd like to end with a quote from my favorite DO. I think that it encapsulates the spirit of osteopathic medicine.

What transformed Cici from scared to happy?
Touch!!
This is what I want everyone to remember. Touch.

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