

**OMM and Me:  
Optimizing Diaphragmatic  
Function in a Telemedicine World**

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April 23, 2020

# Breakdown

- Osteopathic Practice
- MOPSE Trial
- Today's Challenge
- Treatment Application
- Resources
- Future Steps
- Questions & Answers





# Goals for this presentation

- Increase awareness of osteopathic manipulative medicine in our community
- Gather information why OMT is not as widely practiced in Oklahoma
- Present applicable treatment to assist providers and patients during this current pandemic and changes in healthcare

# POLL: Identify Yourself

- A. I only do OMT
- B. I do a combination of OMT and primary care
- C. I do not do OMT due to lack of time
- D. I do not do OMT due to lack of reimbursement
- E. I do not do OMT due to lack of confidence in skillset
- F. I do not do OMT due to lack of patient education
- G. I do not do OMT due to lack of employer support
- H. I do not do OMT due to another reason that I will send to the proctor

Please select all that may apply.

# MOPSE

## Multicenter Osteopathic Pneumonia Study of the Elderly

- prospective randomized controlled clinical trial to observe the efficacy of OMT as an adjunctive treatment for older adults hospitalized for pneumonia
- 387 patients
  - Adjunctive OMT protocol (n=130)
  - Light touch protocol (n=124)
  - Conventional Care Only (n=133)

# MOPSE

## Multicenter Osteopathic Pneumonia Study of the Elderly

- Outcomes measured
  - Length of Stay
  - Ventilator-Dependent Respiratory Failure Rate
  - In-hospital mortality rate
- Subgroups
  - AGE
    - 50 – 74 years
    - 75+ years
  - Pneumonia Severity Index (PSI)
    - I-II
    - III
    - IV
    - V
  - Type of pneumonia
    - Community acquired
    - Nursing home acquired

# MOPSE

## Eight Standardized Techniques

1. Thoracolumbar Soft Tissue
2. Rib Raising
3. Doming of the Diaphragm Myofascial Release
4. Cervical Soft Tissue
5. Suboccipital Inhibition
6. Thoracic Inlet Myofascial Release
7. Thoracic Lymphatic Pump
8. Pedal Lymphatic Pump

<https://www.do-touch.net/mopse/>



# TELEMEDICINE OMT

## Covid19

1. Lack of PPE
2. Social distancing

## Not Covid19

1. Other illnesses
2. Anxiety
3. Musculoskeletal compensations
4. Need for self improvement, empowerment, treatment



# TELEMEDICINE OMT

## Discretion Advised:

- This by no means replaces the need for osteopathic evaluation and treatment by a knowledgeable and skilled physician, but should serve as a reminder for our osteopathic perspective to find the health and optimize healing.
- This by no means replaces AT Still's insistence on hand over hand teaching in learning osteopathic application.
- By the way, this is not covered by insurances. It is an attempt to help patients and providers during an unprecedented (temporary) change in the practice of medicine.



# Tenets of Osteopathy

1. The body is a functioning unit
2. The body is self regulating and self healing
3. Function and structure are integrally related
4. Rational treatment is based on these principles



# Goal of Osteopathic Treatment

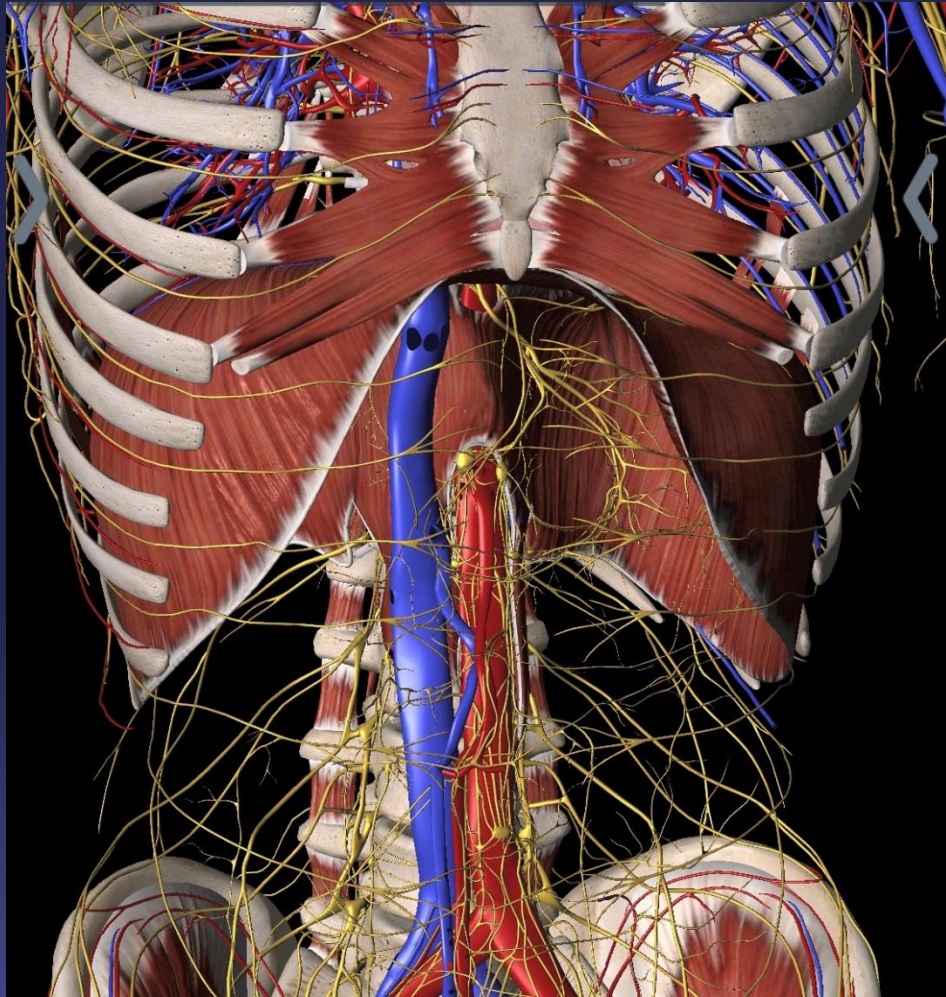
To affect a more efficient interchange of all the fluids of the body across all the tissue interfaces.

# Goal of MOPSE treatment

- Help relax the patient
- Facilitate improved rib cage and diaphragmatic movement
- Balance sympathetic and parasympathetic systems
- Facilitate the circulatory and lymphatic flow in the lung parenchyma and rib cage

## Optimizing the Diaphragm

# Optimizing the Diaphragm





# TELEMEDICINE OMT

| <b>MOPSE 8 Standard Protocol</b>    | <b>Modified Self Treatment</b>                        |
|-------------------------------------|---|
| Thoracolumbar Soft Tissue           | Modified QL/Psoas Release<br>Innominate Wedge Balance |
| Rib Raising                         | Passive Chest Openers                                 |
| Diaphragm Doming Myofascial Release | Self Diaphragm Doming Inhibitory Pressure             |
| Cervical Soft Tissue                | Cervicothoracic Muscle Energy                         |
| Suboccipital Inhibition             | Self Suboccipital Inhibition                          |
| Thoracic Inlet Myofascial Release   | Diagonal Triangular Forearm Support                   |
| Thoracic Inlet Pump                 | Diaphragmatic Breathing                               |
| Pedal Pump                          | Downward Dog Pedal Pump                               |

# Modified Self Treatment

Rule #1

Do Not Hurt Yourself



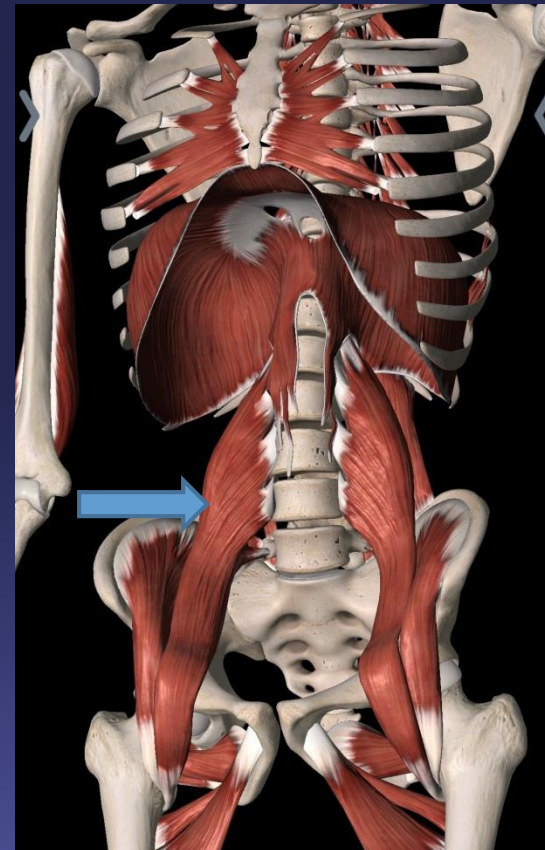
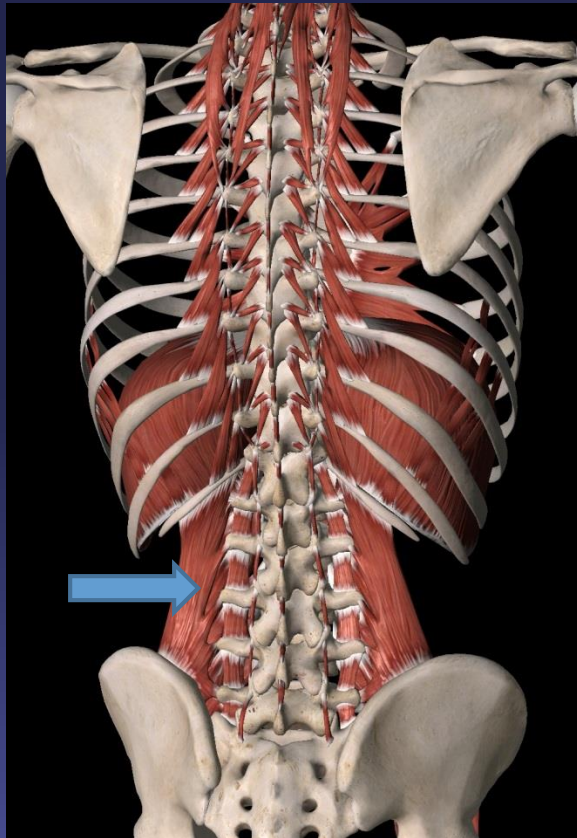
# Modified Self Treatment

## You May Need:

- Flat hard surface
- A pair of shoes (or craniosacral wedges)
- A rolled towel (or yoga bolster)
- A wall
- “Listening” fingers

# Modified Self Treatment

## Modified QL/Psoas Release



# Modified Self Treatment

## Modified QL/Psoas Release

- Lay Supine with hands behind one knee, other leg straight
- **Pull knee** closer **to chest** with exhalation (as the diaphragm moves cephalad)
  - Typically done 2-3 times or until knee is comfortably snug
- **Toes up** to the ceiling
- Muscle Energy: **isometric press** of bent knee away from the chest for **5 seconds**
  - Typically done twice for each side

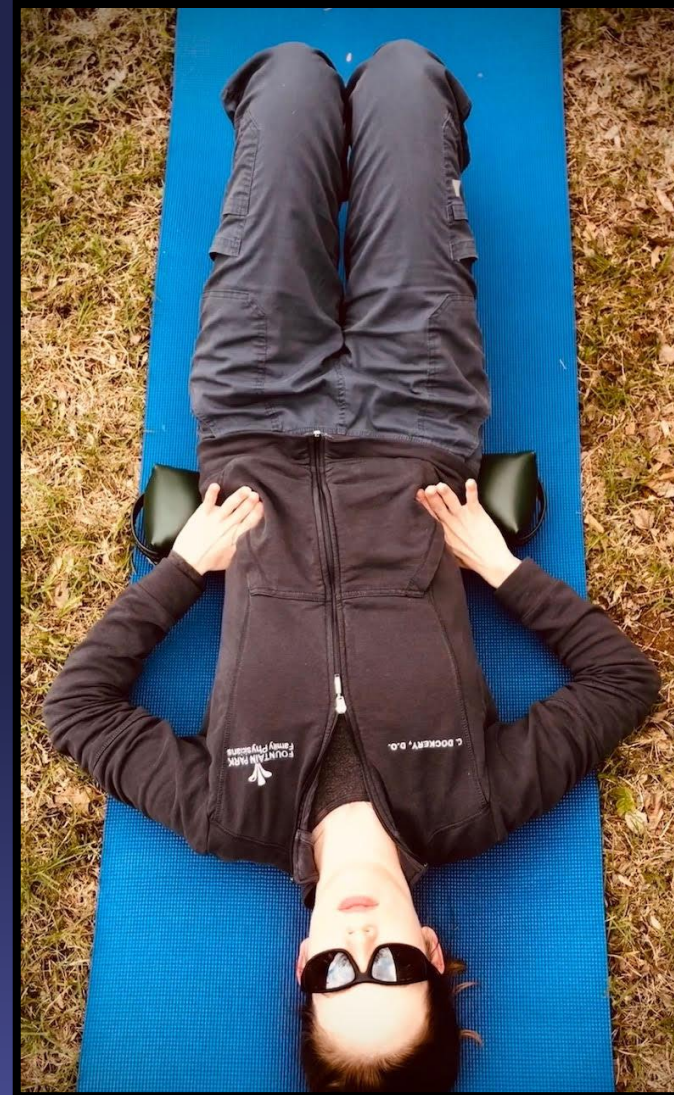




# Modified Self Treatment

## Innominate Wedge Balance

- **Evaluate** pelvic innominates as to which is anterior, and which is posterior in supine position
  - Anterior will be lower
  - Posterior will be higher
- **Place wedges** (or wedge modifications) on posterior aspects of innominates
  - Higher wedge behind posterior innominate
  - Lower wedge behind anterior innominate
- Innominates should now be balanced
- Allow **gravity** to passively adjust innominates



# Modified Self Treatment

## Passive Chest Opener

- Use a yoga bolster (or rolled towel banded together)
- Place **along the spine** from lumbar to occiput while lying in supine position
- **Deep breathing**
- Allow **gravity to passively stretch** anterior muscles

Can do with the Innominate Wedge Balance.

Also good for reducing stress and internal rotation of chest and shoulders.





# Modified Self Treatment

## Self Diaphragm Doming Inhibitory Pressure

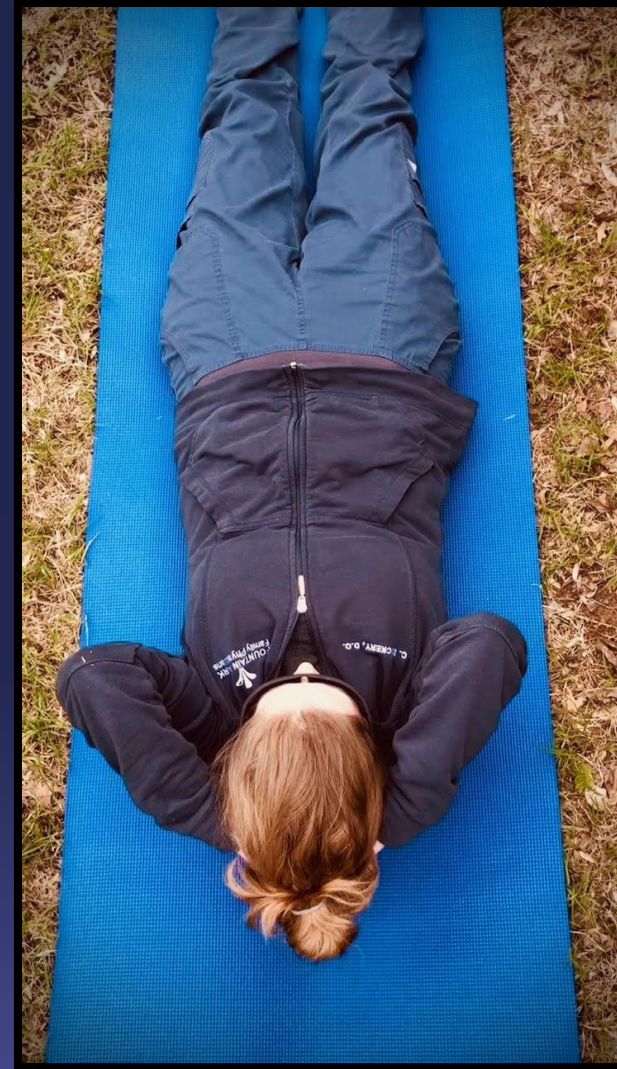
- Supine position
- Wrap fingers around bottom of rib cage into diaphragm
- Ease fingers into tender areas (**Inhibitory Pressure**)
- **Breathe** deep while gently holding pressure until no longer tender
- Move along rib cage



# Modified Self Treatment

## Cervicothoracic Muscle Energy

- Supine position
- Interlace fingers and place behind base of head
- **Gently flex head** towards chest to a gentle stretch
- Hold head in place for an **isometric press** gently towards ground for **5 seconds**
- Relax
- Gently flex further and repeat press





# Modified Self Treatment

## Self Suboccipital Inhibition

- Supine or leaned back
- Press fingers into suboccipital muscles and hold **inhibitory pressure** until relaxed
- May also **fine tune** with myofascial adjustments



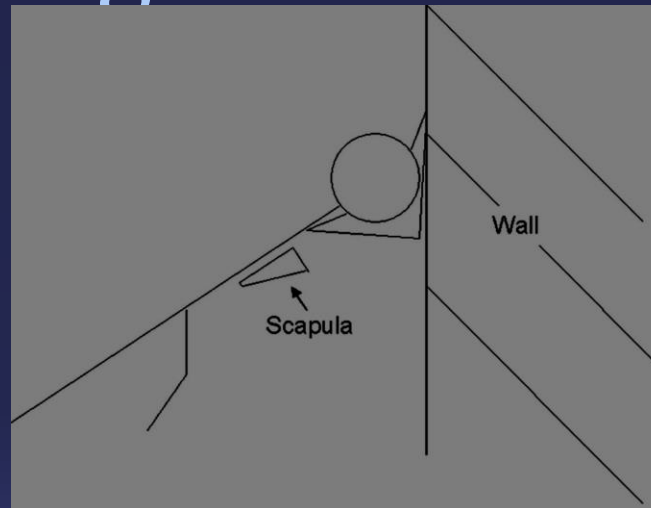
# Modified Self Treatment

## Diagonal Triangular Forearm Support

1. Interlock your fingers, making an equilateral triangle with your forearms as you place them against a wall.
2. Place the fontanelles in the center of that triangle.
3. Walk away from the wall, so that your torso now slants toward the wall. Some weight is now on your head.
4. Lower your chest and press your elbows and forearms into the wall, using the pressure to pull your shoulders far away from the wall.
5. Draw your shoulder blades back, down and apart, still pressing against the wall with your elbows and forearms. Press your shoulders, but not your head, away from the wall.
6. Stay like this for 30 seconds.
7. Now come away from the wall and stand up straight.

# Modified Self Treatment

## Diagonal Triangular Forearm Support



Fishman, Loren & Wilkins, Allen & Ovadia, Tova & Konnoth, Caroline & Rosner, Bernard & Schmidhofer, Sarah. (2011). Yoga-Based Maneuver Effectively Treats Rotator Cuff Syndrome. *Topics in Geriatric Rehabilitation*. 27. 151–161. [10.1097/TGR.0b013e31821bfe68](https://doi.org/10.1097/TGR.0b013e31821bfe68).

# Modified Self Treatment

Diagonal Triangular  
Forearm Support





# Modified Self Treatment

## Diaphragmatic Breathing

Divide breath into two parts:

1. Belly breath (below diaphragm)
2. Chest breath (above diaphragm)

**Inhale: breathe into belly, breathe into chest**

**Exhale: breathe out of belly, breathe out of chest**

Repeat x 10.



# Modified Self Treatment

## Downward Dog Pedal Pump

- Downward dog or modified downward dog
- **Press back** into hamstrings and calves while remaining on toes
- **Lift sacrum** up
- **Alternate heels down**



# Resources

- MOPSE trial
  - Noll DR, Degenhardt BF, Johnson JC. Multicenter Osteopathic Pneumonia Study in the Elderly: Subgroup Analysis on Hospital Length of Stay, Ventilator-Dependent Respiratory Failure Rate, and In-hospital Mortality Rate. *J Am Osteopath Assoc* 2016;116(9):574–587. doi: <https://doi.org/10.7556/jaoa.2016.117>.
  - <http://www.ctosteopathic.org/documents/rome-ne-2011/AOA2011MOPSE%20Presentation.pdf>
  - Keinking, Kurt. ACOFP 54<sup>th</sup> Annual Convention & Scientific Seminars: OMT Evidence Based Medicine. 2017.
  - [https://www.acofp.org/ACOFPIPIMIS/Acofporg/PDFs/ACOF17/handouts/FRIDAY/Fri\\_pm\\_200\\_Heinking,%20Kurt\\_OMT%20Evidence%20Based%20Medicine.pdf](https://www.acofp.org/ACOFPIPIMIS/Acofporg/PDFs/ACOF17/handouts/FRIDAY/Fri_pm_200_Heinking,%20Kurt_OMT%20Evidence%20Based%20Medicine.pdf)
  - <https://www.do-touch.net/mopse/>
- Fishman, Loren & Wilkins, Allen & Ovadia, Tova & Konnoth, Caroline & Rosner, Bernard & Schmidhofer, Sarah. (2011). Yoga-Based Maneuver Effectively Treats Rotator Cuff Syndrome. *Topics in Geriatric Rehabilitation*. 27. 151–161. 10.1097/TGR.ob013e31821bfe68.
- Essential Anatomy 5 Medical App for images



# More Resources

Oklahoma City Study Group: meets one Sunday afternoon each month at St. Anthony's residency

- Please send your email address if you'd like to be on their mailing list for the next meeting date and topic



## POLL: Future Goals

Would there be an interest in a yearly OMT-specific update for local physicians to improve and refresh their OMT skillset?



# POLL: Future Goals

Would you be available to be a table trainer or presenter for an annual OMT update?



# Questions and Answers