

# An Experiential Introduction to Osteopathic Principles, Practice and Manipulative Treatment

Lawrence LeBeau, DO  
Deborah Heath DO  
Richard LaBaere, DO, MPH



AMERICAN ACADEMY OF  
FAMILY PHYSICIANS

## Conflicts of Interest

The speakers have no conflicts of interest to report.

# Objectives

1. Discuss the 4 tenets of osteopathic medicine
2. Describe the goals and rationale for OMT procedures for a clinical case (ex. Pneumonia)
3. Perform the appropriate OMT procedures for the clinical case

# History of Osteopathic Medicine

Developed in 1874 by Andrew Taylor Still, MD

Pioneered the concept of “wellness” and recognized the importance of treating illness within the context of the whole body



# The 4 Tenets of Osteopathic Medicine

- 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.

AMERICAN ACADEMY OF FAMILY PHYSICIANS

## Five Models of Care



## Exercise #1 Physical Examination-Postural

- Pair up, decide who's the doctor and who's the patient.
- Have the patient stand with their back towards you.
- Find the A-C joints of the shoulder and determine unlevelness
- Look at the mastoid process (use ear) and identify which earlobe is closest to shoulder
- Slide your thumbs under the inferior border of the scapula and assess unlevelness
- Place your outstretched fingers on the iliac crests and assess unlevelness
- What is the potential clinical value?

AMERICAN ACADEMY OF FAMILY PHYSICIANS

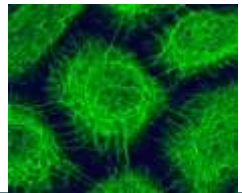
## Exercise #2 Muscle assist of fluids

- Stand up and start flexing on your toes
- Do this for a few minutes
- What are you doing?
- Did your muscles get fatigued?
- What is the potential clinical value?

AMERICAN ACADEMY OF FAMILY PHYSICIANS

## Exercise #3 Colloidal model of fascia

- Knead the model – Stretch it slowly
- Quickly pull it apart – Observe textures
- What is the potential clinical value?
  - Mechanical forces stimulate cell proliferation and vascular remodeling in living skin



Ann Surg. 2007 Nov;246(5):896-902. Tensile Forces Stimulate Vascular Remodeling and Epidermal Cell Proliferation in Living Skin. Pietramaggiore G,

AMERICAN ACADEMY OF FAMILY PHYSICIANS

## Osteopathic Manipulative Medicine Training

- 1<sup>st</sup> and 2<sup>nd</sup> year osteopathic medical students are taught approximately 150 procedures
- 5 Main Treatment Principles
  - Stretching and kneading
  - Increase range of motion
  - Tenderpoint & trigger point pain/hyperirritability reduction
  - Facilitate healing response through lymphatic/venous decongestion and improved blood flow
  - Inhibit neural reflexes



# “Top Ten” Safest, Simplest & Wide Clinical Application

1. Osteopathic Structural Exam Standing/Seated
2. Soft Tissue / Myofascial Release Technique / Muscle Energy
3. Indirect Techniques (Balanced Ligamentous Tension) Cervical/thoracic/lumbar/sacrum
4. Diaphragm Release – Thoracic Inlet / Respiratory
5. Thoraco-lumbar Junction Inhibition
6. Occipito-atlantal release and decompression
7. Venous sinus release techniques
8. Sacroiliac release techniques
9. Strain-Counterstrain techniques: C/T/L/S/Extremities
10. Lymphatic Pump techniques: thoracic and pedal

11

AMERICAN ACADEMY OF FAMILY PHYSICIANS

## Top Ten #1: Standing Structural Exam

- Determine unlevelness of landmarks
  - Mastoid process
  - AC joint
  - Inferior border of scapula
  - Iliac crests
  - PSIS



12

AMERICAN ACADEMY OF FAMILY PHYSICIANS

# Lateral Curves

- Run your fingers down the vertebral column to detect lateral curves associated with unlevel landmarks- (usually at upper thoracic and lumbar segments lumbar)
- Document your findings



# Clinical Presentation

# DEMONSTRATION

# Clinical Case – Cough & Fever

CC: 72-year-old female presents with cough and fever for 3 days.

PMHx: COPD x 10 years

Vital signs: T 100° F, P 80, BP 128/76, R 18, SpO2 92% on room air.

Heart: regular rate and rhythm, no murmurs.

Lungs: crackles on the right with diminished breath sounds in the right base.

Extremities: no edema, peripheral pulses +2/4.

2 view CXR reveals a right lower lobe infiltrate

AMERICAN ACADEMY OF FAMILY PHYSICIANS

## Goals of Treatment

- Eradicate infection by:
  - Increase rib compliance
  - improved respiration and arterial circulation
  - improved lymphatic circulation
  - decrease edema/congestion
  - improve drug delivery

## Treatment Plan

- Antibiotics
- Oxygen
- SVN treatments
- Fluids
- OMT
- Admit or treat outpatient

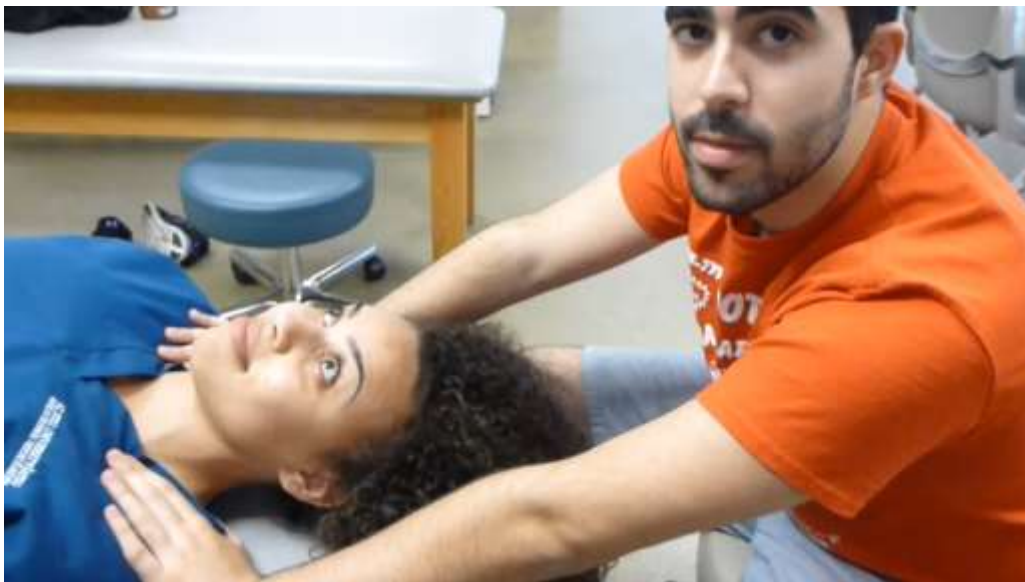
AMERICAN ACADEMY OF FAMILY PHYSICIANS



## Top Ten #4: Thoracic Inlet Release



1. Patient supine and physician at patient head
2. Fingers contact the clavicle
3. Thumbs contact the posterior trapezius
4. Assess shoulders for preferred motion in side-bending, rotation, flexion/extension
5. Position shoulders in the preferred 3 planes of motion = Balanced Ligamentous Tension (BLT)
6. Instruct patient: "hold your breath in for as long as possible." Wait for exhalation, then reposition to new barriers (BLT again)
7. Repeat and recheck



# Top Ten: Springing Rib Raising

1. Place both hands on Rib heads at inferior rib cage
2. Spring ribs anteriorly until tension is felt, wait until relaxation is felt.
3. Relax the pressure and spring again until warmth is felt
4. Repeat rhythmically as you move superiorly to Scapula spine
5. Perform on both sides



## Rib Raising

Dr. Gregory Hollick

# Top Ten: Pedal Pump

1. Patient supine, physician at patient's feet
2. Place palms of hands on balls of feet
3. Dorsiflex feet to initial tension
4. Rhythmically spring feet with gentle pressure
5. Observe abdomen for wave-like motion
6. Continue for 1 – 2 minutes, to patient tolerance, or until less tension is felt



Pedal Pump shown



## Pedal Pump

Dr. Gregory Hollick

## Efficacy of OMT as an adjunctive treatment for hospitalized patients with pneumonia: RCT

- Conclusions: ITT analysis found no differences between groups. PP analysis found significant reductions in LOS, duration of intravenous antibiotics, and respiratory failure or death when OMT was compared to CCO. Given the prevalence of pneumonia, adjunctive OMT merits further study.

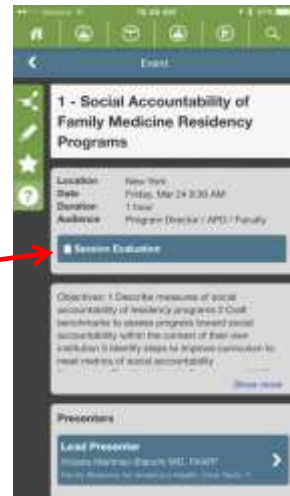
Noll et al. Osteopathic Medicine and Primary Care 2010, 4:2

## Final Summary Slide

- Top Ten OMT Techniques
  - Safe, Simple, Wide Application
- Integrate safe, simple osteopathic manipulative procedures into patient care in a changing multi-professional training environment.

Please...  
Complete the  
session evaluation.

Thank you.



## References Related to OMT and Lymphatics

- Knott,EM et al. JAOA Oct 2005;105(10):447-456.** Increased Lymphatic Flow in the Thoracic Duct During Manipulative Intervention.
- Rivers,WE et al. JAOA Nov 2008;108(11):646-651.** Short-term Hematologic and Hemodynamic Effects of Osteopathic Lymphatic Techniques: A Pilot Crossover Trial
- Noll,DR et al. Osteopathic Medicine and Primary Care 2010, 4:2.** Efficacy of osteopathic manipulation as an adjunctive treatment for hospitalized patients with pneumonia: a randomized controlled trial.
- Hodge LM et al. . Lymphat Res Biol. 2007;5(2):127-133.** Abdominal lymphatic pump treatment increases leukocyte count and flux in thoracic duct lymph.
- Hodge LM,et al. Lymphat Res Biol. 2010;8(2):103-110.** Lymphatic pump treatment mobilizes leukocytes from the gut associated lymphoid tissue into lymph.
- Hodge,L. Itn'l j of Osteopathic Med. 2012 15 (1), 13-21.** Osteopathic Lymphatic pump techniques to enhance immunity and treat pneumonia.



AMERICAN ACADEMY OF  
FAMILY PHYSICIANS

---

**STRONG MEDICINE FOR AMERICA**