

Osteopathy – Back to the Basics:

Plus a view of the future of Osteopathy in the ACGME-AOA post grad ed merger

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OBJECTIVES OF THIS TALK:

- To review of the Principles of Osteopathic medicine, including the Five Models, which are the basis of the milestones for current Osteopathic postgraduate education
- To introduce some of the newer paradigms for weight loss and nutrition, and how teaching patients about these fits into A.T. Still's holistic approach to patient care
- To demonstrate some simple Osteopathic techniques which are easily and quickly performed in the outpatient 15 minute visit
- To suggest one potential benefit of the ACGME-AOA post graduate education merger, and how it could benefit overall health care in this country



"The object of the doctor is to seek health; anyone can find disease"

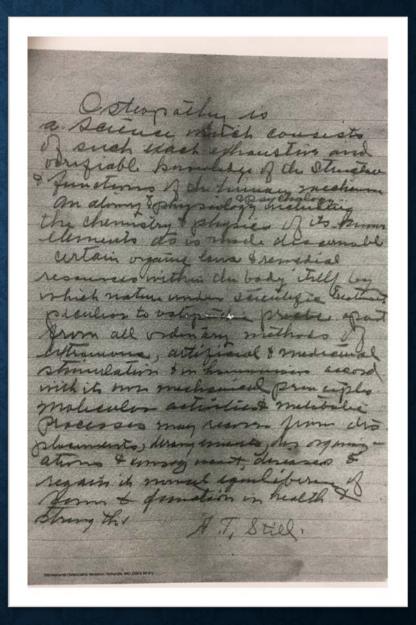
A.T. Still

WHAT IS OSTEOPATHY?

In the words of A.T. Still

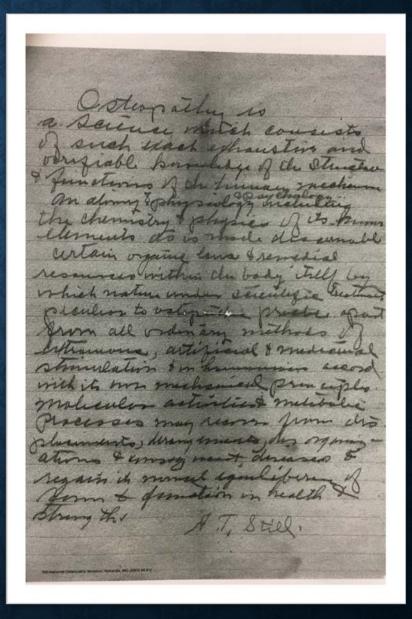
A.T. STILL'S DEFINITION OF OSTEOPATHY

Osteopathy is a science which consists of such exact exhaustive & verifiable knowledge of the structure & functions of the human mechanism Anatomy & physiology (& psychology) including the chemistry & physics of its known elements as is made discernable certain organic laws & remedial resources within the body itself by which nature under scientific treatment peculiar to osteopathic practice apart from all ordinary methods of extraneous, artificial & mechanical stimulation & in harmonious accord with its own mechanical principals, molecular activities & metabolic processes may recover from displacements, derangements, disorganizations & consequent (?) disease & regain its normal equilibrium of form & function in health & strength¹



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TENETS OF OSTEOPATHY

Body, mind, spirit

The body has ability to heal itself

Form follows function

- 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.

CLASSICAL OSTEOPATHIC PHILOSOPHY

• A.T. Still's Fundamental concepts of osteopathy can be organized in terms of **health**, **disease** and patient care

• Heath

- 1. Health is a natural state of harmony.
- 2. The human body is a perfect machine created for health and activity
- 3. A healthy state exists as long as there is normal flow of body fluids and nerve activity

Disease

- 4. Disease is an effect of underlying, often multifactorial causes.
- 5. Illness is often caused by mechanical impediments to normal flow of body fluids and nerve activity
- 6. Environmental, social, mental and behavioral factors contribute to the etiology of disease and illness

CLASSICAL OSTEOPATHIC PHILOSOPHY CONTINUED

Patient Care

- 7. The human body provides all the chemicals necessary for the needs of its tissues and organs
- 8. Removal of mechanical impediments allows optimal body fluid flow, nerve function, and restoration of health.
- 9. Environmental, cultural and social, mental and behavioral factors need to be addressed as part of any management plan.
- 10. Any management plan should realistically meet the needs of the individual patient. ¹
- A.T. Still was ahead of his time in his concept of holistic medicine, believing that we had to treat the whole patient, not just the symptoms and cause of a disease.

DOES OSTEOPATHY WORK?

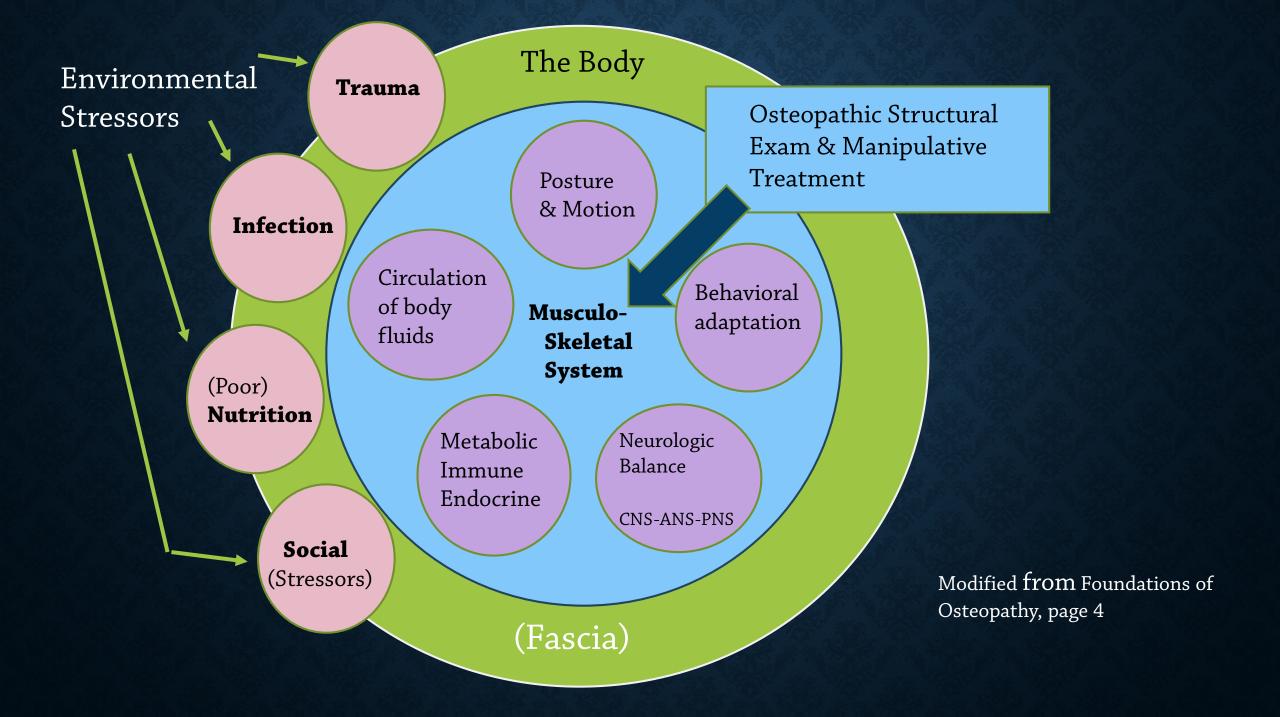
- What makes it seem as if Osteopathy does not 'work' is that it is so often applied to cases which are
 essentially lost causes.
- Sure, OMT can help those with radicular pain, or advanced DJD of the spine, or pre-replacement knee pain or hip pain. But treating somatic dysfunction early to improve lymphatic flow and self-healing mechanisms would have been even *better*.
- It is like thinking you can make a broken down truck run better by giving it a tune up and changing the oil.
- The tune up and oil change should have occurred on a regular basis throughout the life of the car....
 Not waiting until it is a broken down clunker and then trying to revive it with preventive maintenance!

OSTEOPATHIC COLLEGES OF MEDICINE IN THE U.S.



THE FIVE OSTEOPATHIC MODELS

And the Osteopathic Recognition Milestones



THE FIVE MODEL SYSTEM

- Biomechanical model
- Respiratory-Circulatory model
- Neurological model
- Metabolic-Energy model
- Behavioral model

• *the musculoskeletal system can be viewed as the core that links these fiver coordinated body functions. [Foundations, page 4]

BIOMECHANICAL MODEL

Anatomical Correlates

- Postural muscles
- spine
- Extremities
- (Fascia, ligaments)

Physiological Functions

- Posture and motion
- (Exercise or lack of exercise)
- (Overuse/traumatic injuries)

MUSCULOSKELETAL

This is obviously where OMT fits in.

We will review a few techniques which are simple to incorporate into everyday office practice.

It also includes direction for patients on the importance of stretching and exercise



RESPIRATORY-CIRCULATORY MODEL

Anatomical Correlates

- Thoracic inlet/outlet
- Thoracic diaphragms
- Pelvic diaphragm
- Tentorium cerebelli
- Costal cage
- (Blood vessels)
- (Lymphatic channels)

Physiological Functions

- Respiration
- Circulation
- Venous drainage
- Lymphatic drainage

MUSCULOFASCIALYMPHANGIOSKELETAL

OMT fits in here, too.

In fact, as you saw in AT Still's definition, Osteopathy refers to ALL elements, and improving function of them to restore health

• diaphragm releases

thoracic outlet

pelvic diaphragm

respiratory diaphragm

tentorum cerebelli

• lymphatic pump techniques



NEUROLOGICAL MODEL

Anatomical Correlates

- Head (organs of special senses hearing, vision, smell)
- Brain
- Spinal cord
- Autonomic nervous system
- Peripheral nerves

Physiological Functions

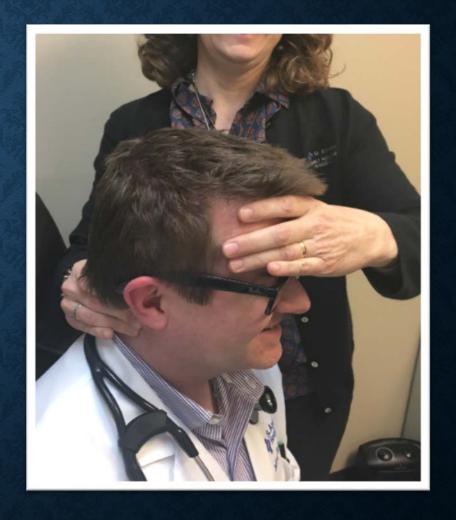
- Control, coordination and integration of body functions
- Protective mechanisms
- Sensation
- (sleep)

NEUROMUSCULOFASCIALYMPHANGIOSKELETAL

OMT fits in here, too.

Even those not doing cranial will appreciate the power of the OA release –

The importance of sleep, and the glymphatic flush is now coming out in the literature -

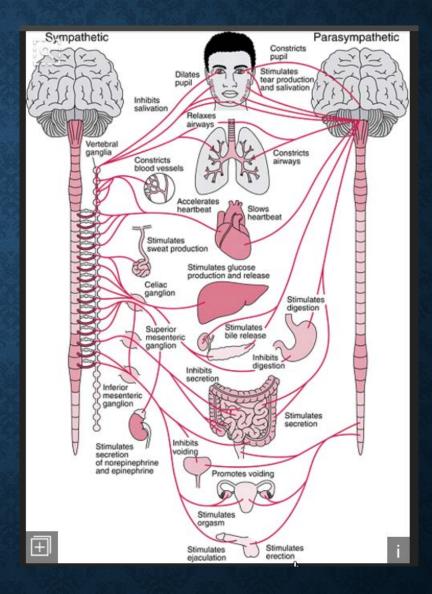


AUTONOMIC NERVOUS SYSTEM - SCHEMATIC

Just to highlight the importance of the OA region,

As well as the LS and sacral regions to the parasympathetic system,

And the rib cage, dorsal and lumbar spine to the sympathetic nervous system.



METABOLIC-ENERGY MODEL

Anatomical Correlates

- Internal organs
- Endocrine glands
- (Microbiome)

Physiological Functions

- Metabolic processes
- Homeostasis
- Energy balance
- Regulatory processes
- Immunological activities
- Inflammation and repair
- Digestion of nutrients
- Absorption of nutrients
- Removal of waste
- Reproduction

MUSCULOSKELETAL > NEUROMUSCULOSKELETAL > NEUROMUSCULOFASCIALYMPHANGIOSKELETAL

Or

NMFLAM for short?

OBESITY AND DIABETES

- The biggest threat to health in developing countries
- We are missing a big opportunity if we do not address this with patients
- Most physicians do not want to confront obesity
 - Patients won't listen
 - Patients resist change
 - Patients will be insulted if we draw attention to their obesity
 - Insurance won't pay for visits with primary diagnosis of obesity
 - It is to difficult to lose weight once it has been gained
 - People have arthritis and pain and cannot exercise
 - There is too much conflicting information about what to eat and what not to eat!

HOPE FOR OBESITY AND DIABETES

foreword by TIMOTHY NOAKES

Why your body's own insulin is the key to controlling your weight

THE

OBESITY CODE

> UNLOCKING THE SECRETS OF WEIGHT LOSS

> > JASON FUNG, MD

foreword by NINA TEICHOLZ

DR. JASON FUNG

author of The Obesity Code

THE

DIABETES

CODE

PREVENT AND
REVERSE
TYPE 2 DIABETES
NATURALLY

FACTS ABOUT OBESITY AND DIABETES

- Type 2 diabetes was at one time rare, but in 2017, 14.3% of adults in the U.S. have type 2 diabetes, and 38% have pre-diabetes now the new 'norm'
- In 1980, only 1% of Chinese had diabetes, and now it has risen to 11.3% (1160% increase in one generation!)
- Obesity and diabetes are related (especially central obesity)
- This increase has occurred in the last 40 years

A HISTORY LESSON

- "Syndrome X" in the 90s becomes
- **\rightarrow** "The metabolic syndrome" in the 2000s which becomes
- \rightarrow "Pre-Diabetes" in the 2010s
- ALL are related to fatty liver disease

CAUSED BY EATING TOO MANY CARBOHYDRATES AND SUGARS

WHAT WOULD AT STILL DO?

- Tell people to eat less!
- Of course, that is what we have been telling people for years. Eat less and exercise more. Dr. Fung explains why this approach does not work
- A calorie is not a calorie calories in/calories out is faulty
- Diabesity is a hormonal disease caused by eating too many foods that turn to sugars, increasing insulin output and leading to insulin resistance, which is the basis of type 2 diabetes
- Intermittent fasting can prevent, treat and cure diabetes

BEHAVIORAL MODEL

Anatomical Correlates

- Brain
- (?microbiome)

Physiological Functions

- Psychological and social activities
 - Anxiety
 - Stress
 - Work
 - Family
- Habits
 - Sleep (or lack of)
 - Drug abuse
 - Sexual activities
 - Exercise
- Values, Attitudes, Beliefs (spirit)

STRESS REDUCTION AND SLEEP

- Stress plays a major roll in health, multiple studies verify this
- Counsel patient on exercise, offer counseling for depression
- Sleep is key, studies now showing that lack of sleep is a major risk factor in many disease process and in the inflammatory process
- The "glymphatic flush" occurs during deep sleep that clears the brain of waste products without sleep, these build up

OSTEOPATHIC MILESTONES

Inserting the Five Models of Osteopathy into the ACGME milestones

OSTEOPATHIC PRINCIPLES IN PATIENT CARE

Patient Care 1: Osteopathic Principles for Patient Care				
Level 1	Level 2	Level 3	Level 4	Level 5
Describes the inclusion of osteopathic principles, including the four tenets, when caring for patients Incorporates osteopathic principles when obtaining a history, performing an examination, synthesizing a differential diagnosis, and devising a patient care plan with direct assistance from supervisor	Incorporates osteopathic principles, including the four tenets, to promote health and wellness in patients with common conditions Incorporates osteopathic principles when obtaining a history, performing an examination, interpreting diagnostic testing, synthesizing a differential diagnosis, and devising a patient care plan, with supervision	Independently incorporates osteopathic principles to include the four tenets to promote health and wellness in patients with complex or chronic conditions Independently incorporates osteopathic principles when obtaining a history, performing an examination, interpreting diagnostic testing, synthesizing a differential diagnosis, and devising a patient care plan for patients with common conditions	Mentors others to incorporate osteopathic principles to promote health and wellness Independently incorporates osteopathic principles when obtaining a history, performing an examination, interpreting diagnostic testing, synthesizing a differential diagnosis, and devising a patient care plan for patients with multiple comorbidities	Role models and teaches the effective use of osteopathic tenets to optimize patient health Role models and teaches the effective use of osteopathic focused history, exam, and treatment to minimize the need for further diagnostic testing or intervention
Comments: Not Yet Achieved level 1				
,				

OSTEOPATHIC PRINCIPLES IN PATIENT CARE

Patient Care 2: Examination, Diagnosis, and Treatment				
Level 1	Level 2	Level 3	Level 4	Level 5
Performs general osteopathic structural examination, including assessment for somatic dysfunction, through identification of tenderness, asymmetry, restricted range of motion, and tissue texture abnormalities with direct assistance from supervisor Performs treatment of somatic dysfunction with direct assistance from supervisor	Performs osteopathic structural examination and diagnoses somatic dysfunction appropriate to patient condition, with supervision Performs treatment of somatic dysfunction in common conditions, with supervision	Independently performs accurate and complete osteopathic structural examination and diagnoses somatic dysfunction appropriate to patient condition Independently performs treatment of somatic dysfunction in common conditions	Mentors others to diagnose and treat somatic dysfunction Independently performs accurate and complete osteopathic structural examination and diagnoses somatic dysfunction appropriate to complex patients Independently performs treatment of somatic dysfunction in complex conditions in a patient with multiple comorbidities	Role models and teaches accurate and complete osteopathic structural examination and diagnoses somatic dysfunction appropriate to complex patients
Comments: Not Yet Achieved level 1				

OSTEOPATHIC PRINCIPLES IN MEDICAL KNOWLEDGE

Osteopathic Principles for Medical Knowledge				
Level 1	Level 2	Level 3	Level 4	Level 5
Demonstrates knowledge of the four tenets and the five model concept* of osteopathic medicine Describes basic	Describes the application of the four tenets and osteopathic five model concept in patient care Describes appropriate	Applies knowledge of the four tenets and osteopathic five model concept in patients with common conditions Applies knowledge of	Mentors others to apply the four tenets and osteopathic five model concept and utilize OMT Applies knowledge of the four tenets and	Role models and teaches the four tenets and osteopathic five model concept in all aspects of patient care
techniques of osteopathic manipulative treatment (OMT)	OMT techniques for common patient presentations Demonstrates	appropriate OMT techniques to formulate a patient-centered care plan	osteopathic five model concept in patients with complex conditions and presentations	teaches OMT techniques to formulate a patient-centered care plan
Demonstrates knowledge of absolute and relative contraindications of OMT	knowledge of the risk versus benefit of OMT		Applies knowledge of advanced OMT techniques to formulate a patient-centered care plan	
Comments: Not Yet Achieved level 1				

OSTEOPATHIC PRINCIPLES OF PRACTICE-BASED LEARNING AND IMPROVEMENT

Osteopathic Principles of Practice-based Learning and Improvement				
Level 1	Level 2	Level 3	Level 4	Level 5
Performs osteopathic- focused literature review Acknowledges gaps in osteopathic knowledge and expertise Describes evidence- based medicine principles and how they relate to osteopathic patient care	Incorporates osteopathic literature into rounds, case presentations, or didactic sessions Incorporates feedback to develop a learning plan to better apply the osteopathic five model concept to patient care Performs self-evaluation of osteopathic practice patterns	Prepares and presents osteopathic-focused scholarly activity or didactic session Expands learning plan to incorporate specialty-relevant research to better apply the five model concept to patient care Performs self-evaluation of osteopathic practice patterns and practice—based improvement activities	Prepares and presents osteopathic-focused scholarly activity at local, regional, or national meeting Modifies learning plan based upon clinical experience utilizing the osteopathic five model concept Performs self-evaluation of osteopathic practice patterns and practice-based improvement activities using systematic methodology	Performs and publishes peer-reviewed research related to osteopathic principles Independently pursues knowledge of new and emerging OMT techniques Teaches OMT techniques at regional or national meetings
Comments: Not Yet Achieved level 1				

OSTEOPATHIC PRINCIPLES FOR INTERPERSONAL AND COMMUNICATION SKILLS

Osteopathic Principles for Interpersonal and Communication Skills							
Level 1	Level 2	Level 3	Level 4	Level 5			
Describes the tenets of osteopathic principles to patients and families Develops a positive relationship with patients Demonstrates knowledge of cultural competency and its impact on communication	Describes the tenets of osteopathic principles to interprofessional collaborative team members Participates in shared decision making in regards to osteopathic care plan, utilizing easy to understand language Incorporates cultural competency into	Utilizes appropriate verbal and non-verbal skills (including touch) when communicating with patients, families, and interprofessional collaborative team members Engages patient in shared decision making in regailds to osteopathic care plan	Mentors others to communicate with patients, families, and interprofessional collaborative team members Utilizes appropriate verbal and non-verbal skills to coordinate team-based patient care activities Uses patient-centered	Role models and teaches patient engagement in shared decision making in regards to osteopathic care plan			
	customized communication	Uses patient-centered communication to manage conflict	communication to manage conflict in complex situations				
Comments: Not Yet Achieved level 1							

OSTEOPATHIC PRINCIPLES FOR SYSTEMS-BASED PRACTICE

Osteopathic Principles for Systems-Based Practice						
Level 1	Level 2	Level 3	Level 4	Level 5		
Demonstrates knowledge of distinctive osteopathic patient care in the health care delivery system Demonstrates knowledge of required medical documentation related to diagnosis and treatment of somatic dysfunction	Provides cost-effective osteopathic patient care within a health care delivery system, with supervision Recognizes patient barriers to quality osteopathic patient care Documents somatic dysfunction and codes OMT, with supervision	Independently provides cost-effective osteopathic patient care within a health care delivery system Assists patients in obtaining quality osteopathic patient care Independently documents somatic dysfunction and codes OMT	Mentors others to document somatic dysfunction and code OMT Coordinates cost- effective osteopathic patient care within the health care delivery system Identifies and remedies system deficiencies related to osteopathic patient care	Develops optimal, cost- effective osteopathic patient care within the health care delivery system Demonstrates leadership in organized advocacy efforts for the osteopathic profession		
Comments: Not Yet Achieved Level 1						

OSTEOPATHIC PRINCIPLES FOR PROFESSIONALISM

Osteopathic Principles for Professionalism							
Level 1	Level 2	Level 3	Level 4	Level 5			
Recognizes own bias in issues of culture, religion, age, gender, sexual orientation, and mental and physical disabilities Identifies the effect of osteopathic principles and practice, including touch on the patient-physician relationship Respects the contributions of members of the health care team	Demonstrates nondiscriminatory behavior in all interactions, including with diverse and vulnerable populations Recognizes patient's unique perception of touch and how this influences osteopathic patient care Identifies the risk of boundary violations in the osteopathic patient- physician relationship Participates in team- based, compassionate, end-of-life care, utilizing the osteopathic tenets Preserves patient dignity during diagnosis and treatment of somatic dysfunction Respects and honors patient refusal to receive specific types of OMT	Demonstrates compassionate practice of osteopathic medicine, even in context of disagreement with patient beliefs Incorporates recognition	Mentors others in utilizing the osteopathic tenets and appropriate use of touch in all patient care settings Mentors others in managing difficult osteopathic patient-physician relationships while ensuring patient care needs are met Coordinates the health care team in providing compassionate end-of-life care utilizing the osteopathic tenets Promotes public confidence in osteopathic medicine	Develops policies and procedures regarding compassionate practice of osteopathic medicine Demonstrates leadership in the advancement of patient-centered osteopathic health care Develops policies and procedures regarding the management of difficult osteopathic patient-physician relationships, while ensuring patient care needs are met			
Comments: Not Yet Achieved Level 1							

THE EFFECT OF THE MILESTONES

- In our effort to achieve the milestones for our DO residents, it is necessary to provide an Osteopathic learning environment for them –
- Creating a learning environment for DO residents within the context of an ACGME residency
 has the effect of teaching non-DO physicians the principles of Osteopathy in the environment
 of patient care
 - Teach MD residents how to refer patients for OMT
 - Teach MD attendings how to direct DO residents to provide OMT in the hospital and clinic setting
 - Teach DO residents how they can model their unique approach as

SIMPLE TECHNIQUES FOR EVERY DAY PATIENT CARE

You don't have to lay the patient down or have an OMT table in order to deliver Osteopathic treatment!

SEATED CERVICAL MUSCLE ENERGY

- While examining your patient, gently assess segmental motion of the cervical spine while they are seated.
- It takes seconds to get a regional motion (rotation, side-bending, flexion and extension), and then within a few seconds you can feel where specific somatic dysfunctions are located.
- Find the barrier, treat it where you find it using muscle energy principles



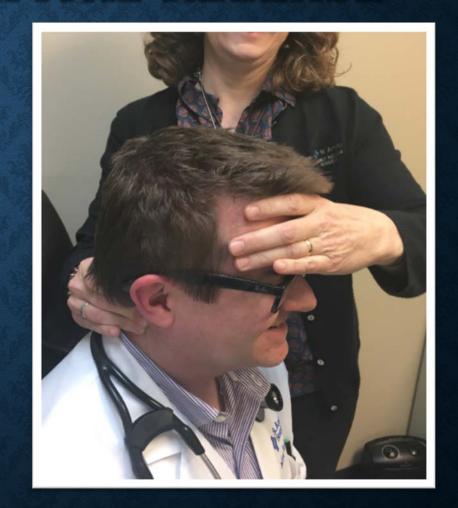
RIB RAISING/THORACIC ARTICULATION SEATED

- This technique can be used to assess motion, and then to treat
- Introduce side-bending and rotation using the upper arm as a fulcrum (or use the patient's shoulder with))
- This is an articulatory and myofascial technique
- Improves respiratory function, among other benefits, and affects sympathetic tone at the rib heads



SEATED CRANIO-OCCIPITAL RELEASE

- Standing beside patient, place your back hand at the base of the skull, and provide a lifting motion
- Stabilize the head by holding your opposite hand against the forehead, gently wrapping around the sides of the head (not too much pressure)
- Lift gently, and imagine the skull expanding and contracting (you cranialists will have an easier time of this). Your patients often feel a sensation that the sinuses are opening.



OTHER SIMPLE TECHNIQUES TO CONSIDER

- Straighten out the ilia and pelvis if it is really noticeable [can be done fairly easily on a gyn table]
- Supine OA decompression, especially in setting of headache or nausea or neck pain [may need to make sure gyn tables have room in the corner for you to get in]
- Lumbar stretching or articulation or HVLA if you are comfortable
- Spencer techniques if you find muscle imbalances (don't wait for shoulder pain!) [patient sidelying on gyn table]

STICK EM UP STRETCH

- Hold hands up at level of ears
- Breathe deeply for 30 seconds
- Turn head from side to side, slowly, 4 or 5 times

• → looses up joints, fascia in upper back, activates the lower trapezius

SUPINE LUMBAR DECOMPRESSION

- Lay supine on firm surface
- Hands on the thighs
- Apply only 25-50% pressure down toward feet
- Breathe deeply 3 to 5 times, and feel the lower back stretch.



REVERSE PLANK

Engages the muscle groups that are often not working well.

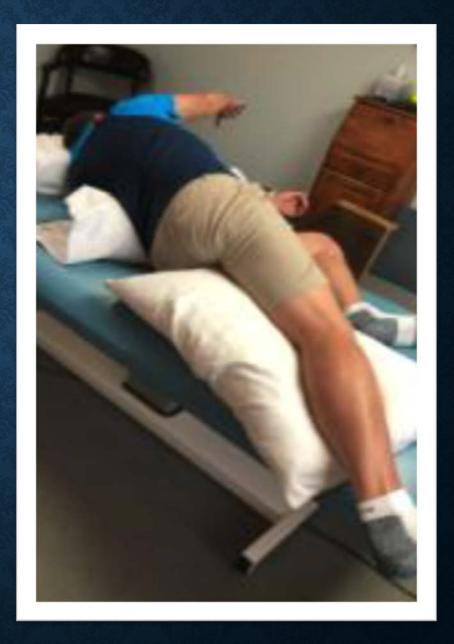
May need to treat out somatic dysfunction first

- 2 pillows under the knees
- Toes to Nose, straighten knees,
- Push elbows into bed and raise hips
- Tighten abdominals & gluteals more
- To lift the buttocks off the tables
- Hold 5 seconds and rest. Repeat 5 to 10 times once a day



QUADRATUS LUMBORUM STRETCH

- Side-lying with
- pillow at head,
- Pillow rolled up under the opposite side
- Pillow also supporting knee on same side
- Myofascial stretch with forearm and hand
- Using resisted hip ABDuction
- Reach with the arm and the leg



OSTEOPATHIC TREATMENT IN PREVENTION

A recap

OMT IN PREVENTION

- A major goal of Osteopathic Medicine is to use well applied manual therapy in treatment of the patient in order to improve the structure and function of the body, and therefore to enhance health and longevity.
- This goal is available to all of us, not just those who 'specialize' in OMT.
- OMT is not just for treatment of back pain! It is much better to **prevent back pain from happening**, than to treat it once it occurs. And because we have demonstrated that segmental relationships exist between the spine and the viscera, we can rest assured knowing that improving motion and treating somatic dysfunction can improve function of other structures in the body (the viscera)

OSTEOPATHY IN PREVENTION

- Osteopathy is not just about manipulation --
- Counseling patients on the importance of
 - proper nutrition,
 - Stretching and exercise
 - stress reduction
 - Sleep
 - Reduction in screen time
- are key functions we should include in our treatment

OKLAHOMA CITY OSTEOPATHIC STUDY GROUP

- Meets the second (usually) Sunday of each month except March and December (usually)
- Good for up to 4 hours of CME credit for OOA members [we do not charge dues]
- Collaborative learning environment with several of the best DO manipulation specialists in the area,
 as well as physical therapists, medical massage therapists and dentists
- Meets at the SSM Health St. Anthony Family Medicine residency, in the POB at 608 NW 9th, suite 2000
- To get on the email list, contact Suzanne Ferguson, <u>suzanneferguson03@gmail.com</u>, or Sabrina Schrader, Sabrina.L.Schrader@ssmhealth.com.
 - Come learn with us!

CITATIONS -

- Foundations of Osteopathy, 3rd Ed. Anthony D. Chila, DO, FAAO editor, Lipincott, Williams & Wilkins, 2011
- American Family Physician, Osteopathic Manipulative Treatment: A Primary Care Approach,
 editorial, 2019 Feb 15: 99 (4): 214
- The Diabetes Code, Jason Fung, MD, Greystone Books, 2018