PainWeek®

OMG OMT!
A Guide to Osteopathic Manipulative Treatment

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- No financial or corporate disclosures

Learning Objectives

- Review considerations for performing osteopathic manipulative treatment (OMT), including indications, contraindications and cautions
- Describe the science supporting OMT use in patients
- Explain how to utilize OMT procedure referral
- Review misconceptions about OMT

What Is Osteopathic Manipulative Treatment (OMT)?

Osteopathic Manipulative Treatment

- "…a set of hands-on techniques used by osteopathic physicians (DOs) to diagnose, treat, and prevent illness or injury. " – American Osteopathic Association website
- "Doctors of osteopathy (DOs) literally take a hands-on approach to musculoskeletal disorders. Osteopathic manipulation treatment (OMT) is used to help correct structural imbalances in your body, improve circulation and relieve pain." – Cleveland Clinic website
- "Therapeutic maneuvers to treat *somatic dysfunction* (defined as impaired or altered function of related components of the somatic system, including skeletal, arthrodial, and myofascial structures, as well as related vascular, lymphatic and neural elements)." - Roberge RJ, Roberge MR. Overcoming barriers to the use of osteopathic manipulation techniques in the emergency department. West J Emerg Med. 2009;10(3):184-189.

What Makes OMT Unique-Ish?

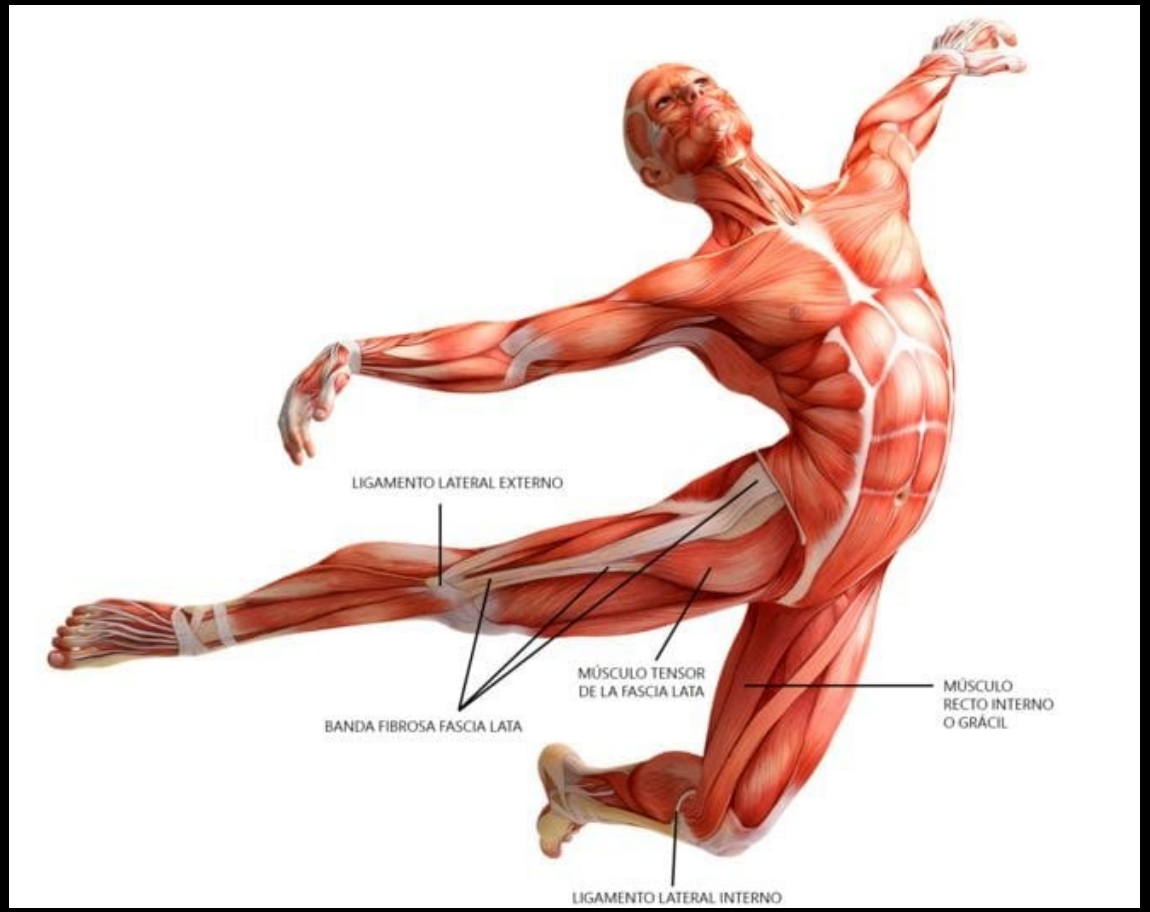
- Palpatory skills!
  - Manual diagnosis
  - Manual treatment

Misconceptions about OMT

- It is for the spine
- It is for low back pain
- Can not be done if pt. has had surgery
- It can only be done in an office
- It is not covered by insurance
- Osteopaths can only do manipulation
- Osteopaths can not practice in NYC*

Somatic Dysfunctions: TART

- Tissue texture changes
- Asymmetry
- Range of motion restriction
- Tenderness



The Exam: Structural (OSE)

- standing, seated, supine, prone
- passive and active motion
  - static skeletal eval (relative shoulder heights, iliac crest heights…)
  - dynamic skeletal eval (IR, ER, inhalation, exhalation)
  - ROM around a joint (restrictions or freedoms)
  - muscle tone (spasm, looseness, trigger points, tender points)
  - ligament (balance, laxity, tenderness)
  - tenderness (response to movement)
  - textures: edematous, ropey, hyperemic


OK, YOU MAY HEAR A CRACK...

The “T”

- Techniques to alter anatomy and affect physiology
  - compression, traction, massage, pressure, ROM maneuvers, overcoming barriers
  - uses active and passive techniques
  - uses respiration to assist
  - treatment can be done prone/supine/seated/standing

Goals

- Decrease tissue tension,
- Increase joint range of motion,
- Reduce tissue hyperirritability and pain,
- Reduce tissue congestion: improve circulation,
- Inhibition of abnormal neural reflexes/tone

The 4 Tenets Spiel (the Why)

- 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 above basic principles.

  – American Osteopathic Association website

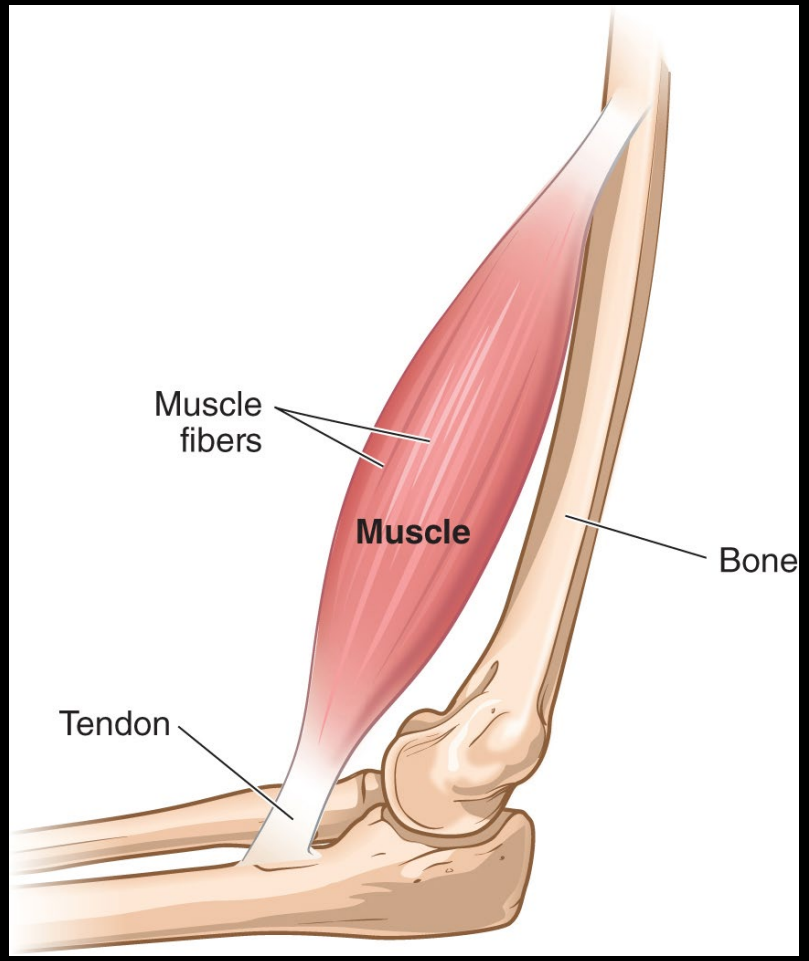
Structure and Function: Anatomy Review

- Bones and ligaments (scaffold)
- Muscles and tendons (movers)
- Joints (the axis)
- Neuro (the wiring)
- Vascular (communication, nourishment, waste removal)
- Fascia (support, stability…the key!)

Bones and Ligaments (Platform)

- Bones: Primary weight bearer of body
  - posture should emphasize weight distribution onto bone
- Ligaments: The “welding” of scaffolding
  - avascular with minimal contractile properties

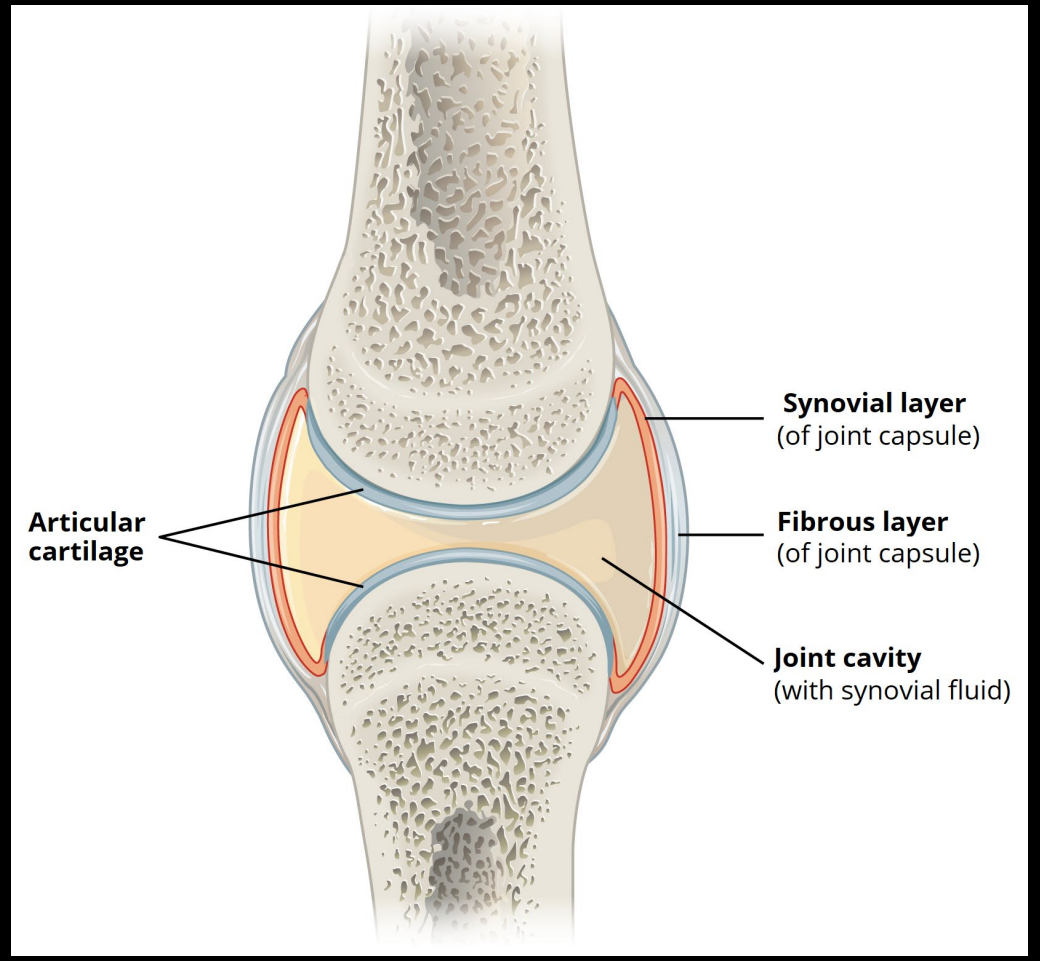
Muscles and Tendons (Movers)



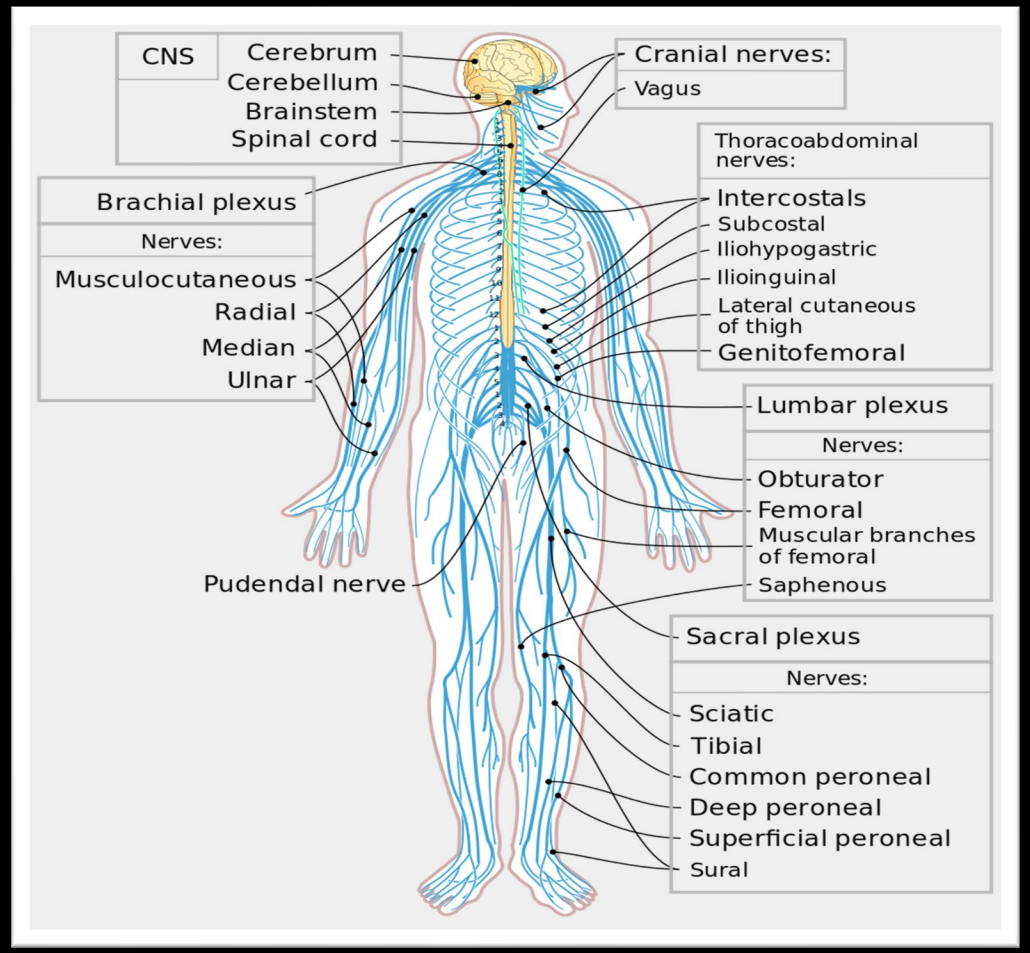
- Muscles
  - Tone controlled by muscle spindle and golgi tendon organs
  - Proprioceptive organization
  - Threat response
- Tendons
  - Fibrous: condensation of fascia around muscle
  - Less vascular than muscle
  - Attach by sharpy fibers to bone

Joints (the Axis)

- Specialized bone connections
  - Requires good circulation in and out
  - Motion is mediated by proprioceptive input



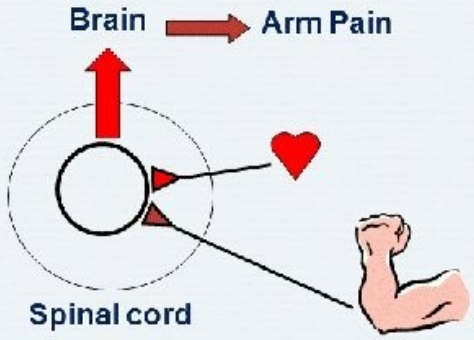
Neuro (the Wiring)



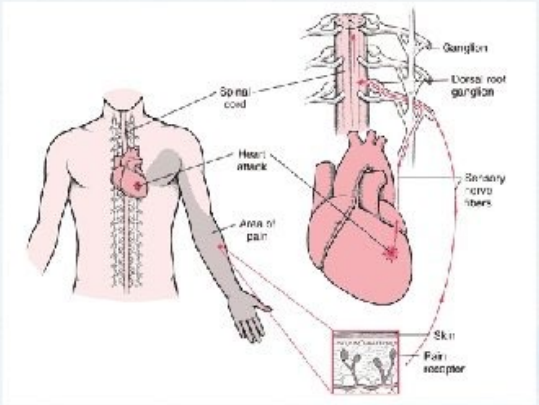
- Motor, sensory, autonomic
- Reflex: viscero-somatic; somato-visceral; somato-somatic
- General tone effected by CNS factors

Referred Pain:
Viscerosomatic Convergence

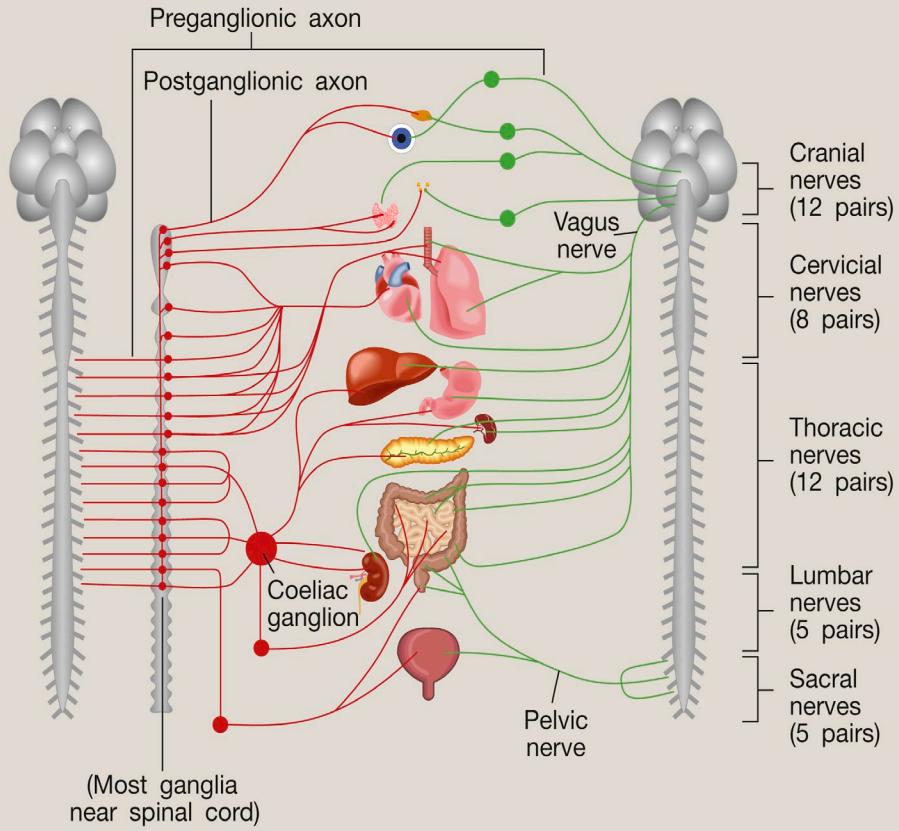
Viscerosomatic convergence:
Primary afferents from myocardium and somatic region of left arm converge on same projection neuron in spinal cord



Myocardial Infarction

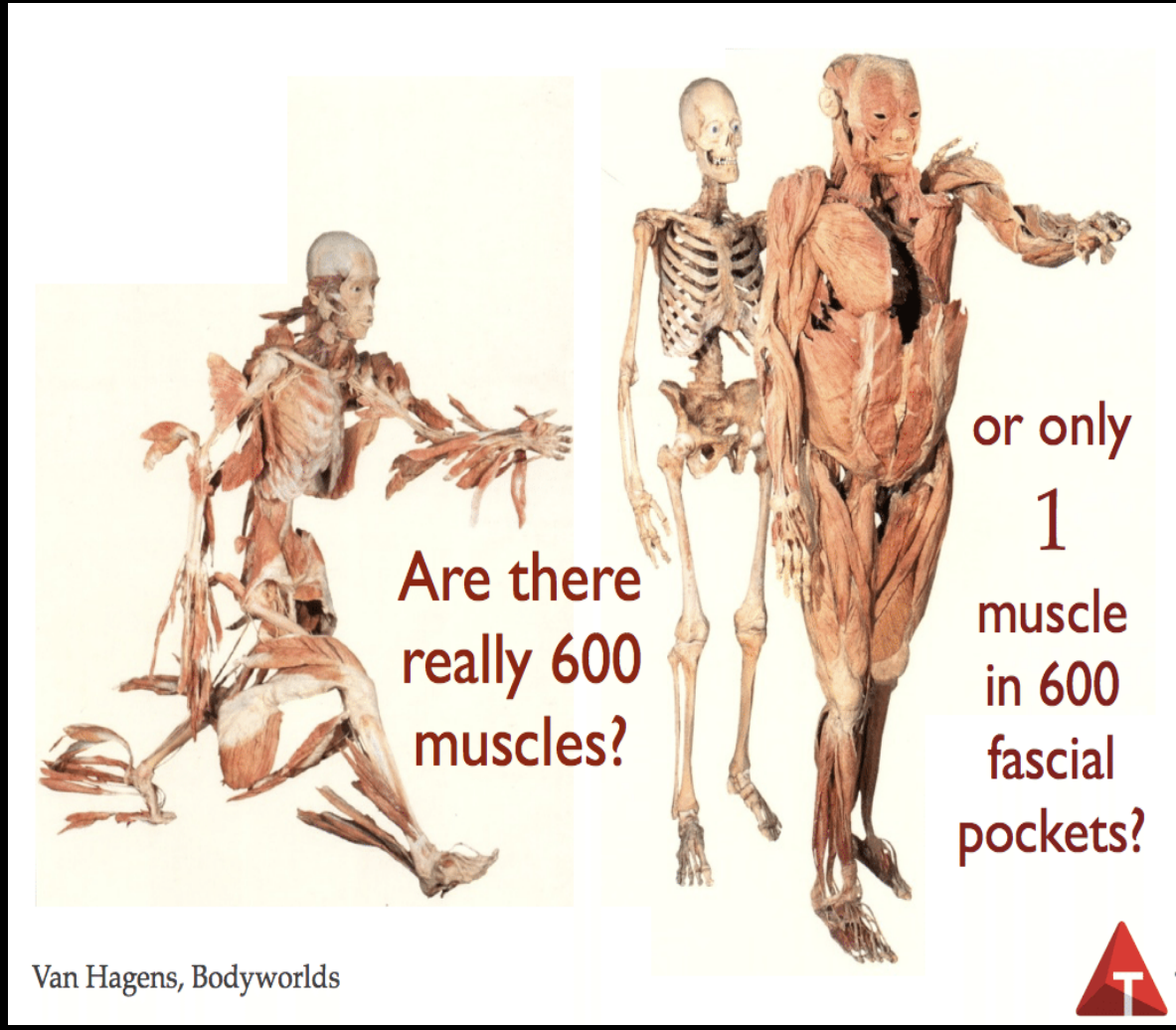


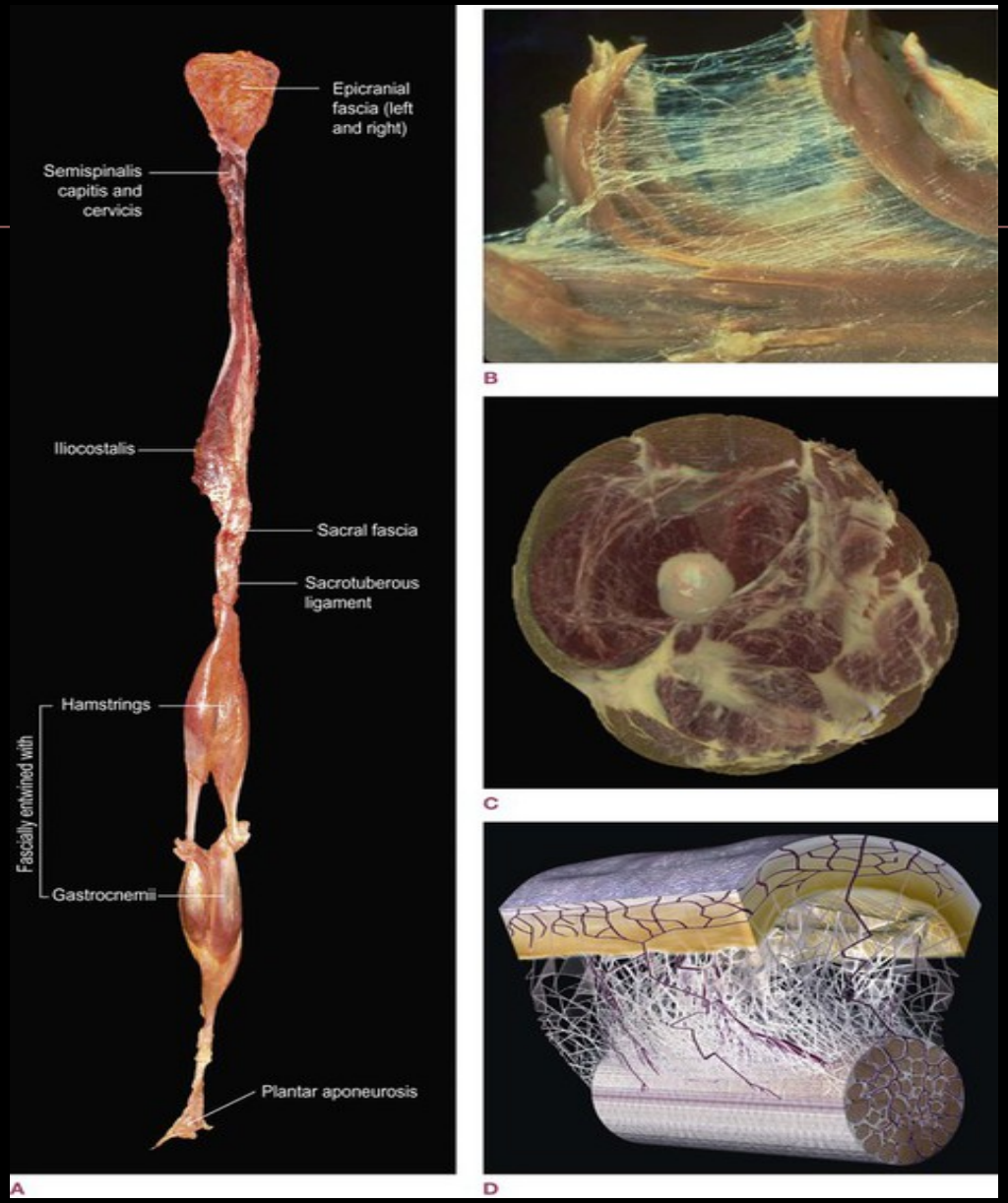
Sympathetic and parasympathetic outflow

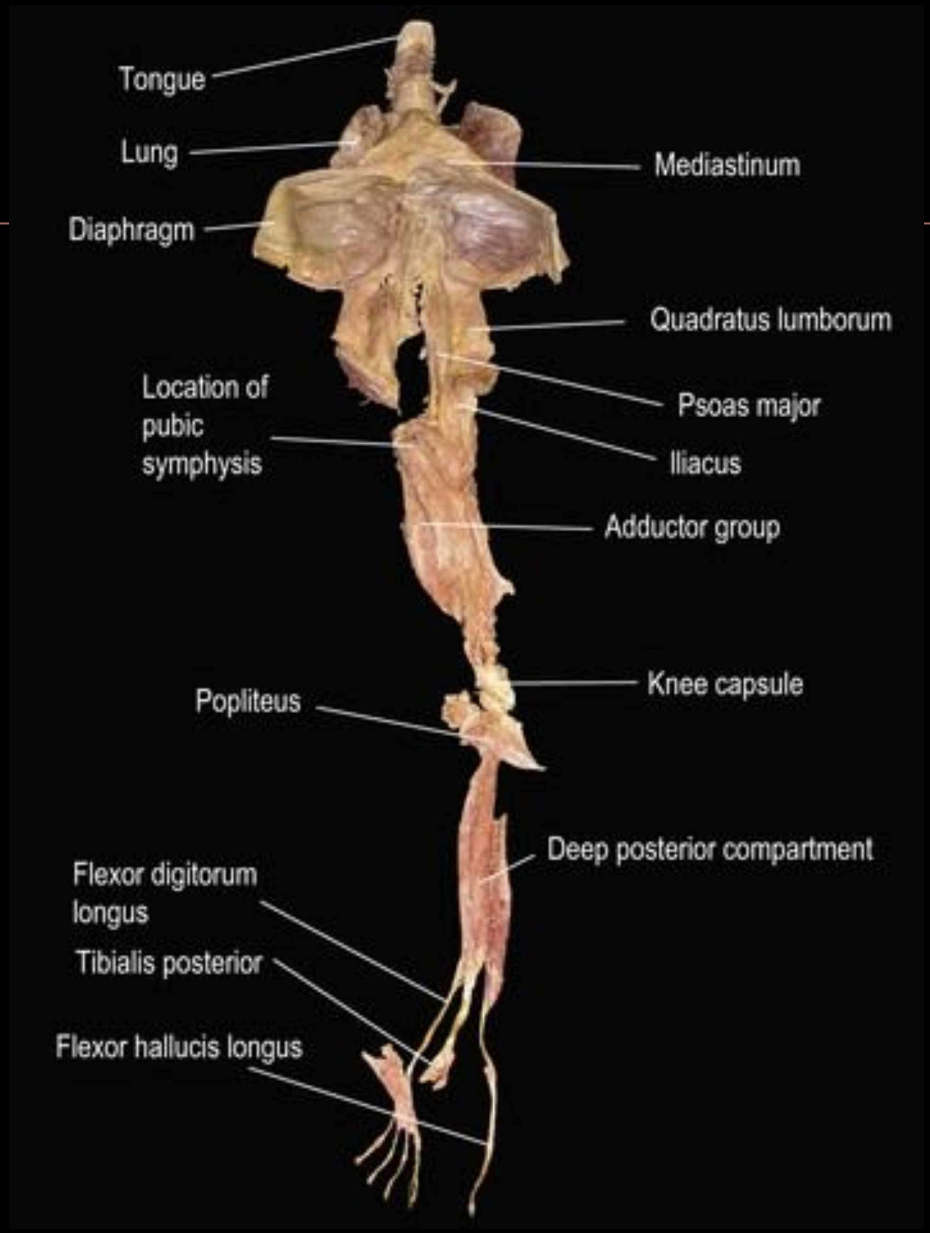


Fascia (the Force!)

- Binds and envelopes
- Has contractile properties
- Contiguous in multiple planes




Epicranial fascia (left and right)
Semispinalis capitis and cervicis
Iliocostalis
Sacral fascia
Sacrotuberous ligament
Hamstrings
Fascially entwined with
Gastrocnemii
Plantar aponeurosis
A
B
C
D


Tongue
Lung
Diaphragm
Mediastinum
Quadratus lumborum
Location of pubic symphysis
Psoas major
Iliacus
Adductor group
Knee capsule
Popliteus
Deep posterior compartment
Flexor digitorum longus
Tibialis posterior
Flexor hallucis longus

Touch Points

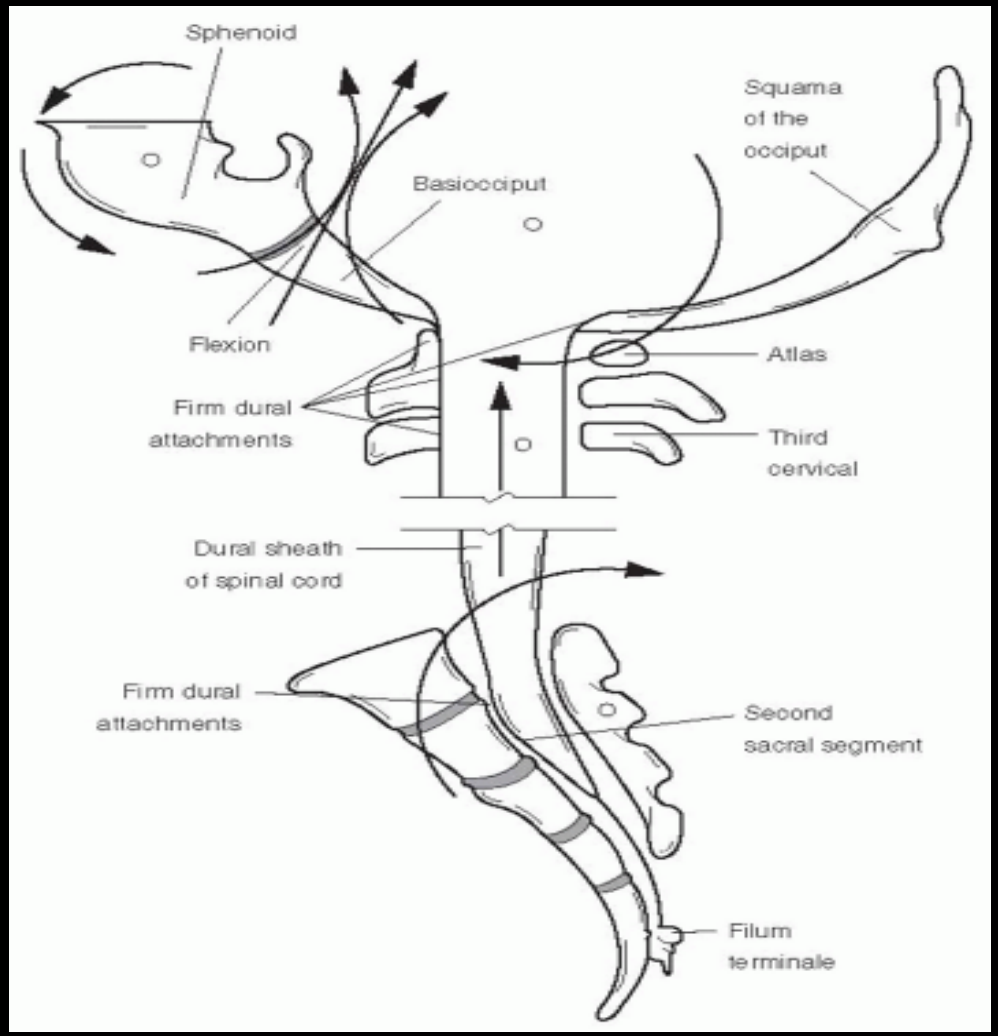
- The patients experience
  - PTSD
  - Pain/discomfort
  - Vulnerability

Models of Osteopathic Medicine

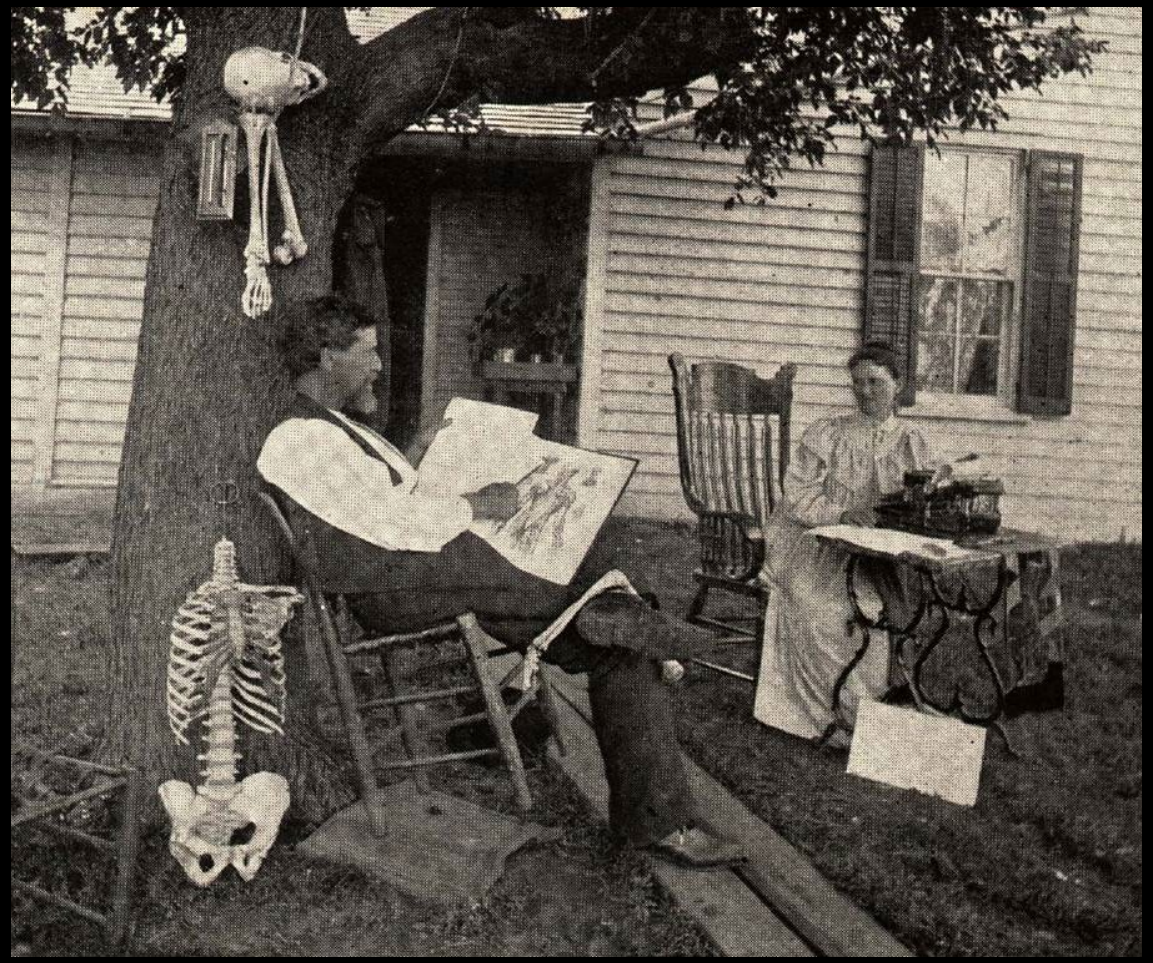
- Biomechanical:
- Respiratory-circulatory:
  - Fascial considerations
  - Zink model/CCP
- Neurological:
  - viscero-somatic and other reflex
- Metabolic-energetic:
  - Allostatic load
- Behavioral:
  - Allostatic load

Models: Sutherland Model (Cranial Model)

- Balance of ligaments around structures
- The cranial model: balanced membranous tension



History of OMT



- AT Still
  - Did not develop for back pain

History of OMT: How Has it Evolved?

- Over the past 130ish years
  - Spanish flu
  - Pain applications: fibro, LBP, NP, CP
  - Medical applications: vertigo, CAP, OM

How is it different from chiropractic… or PT, or whatever?

- I am not a chiropractor, massage therapist, or PT so not an expert on those!

- Similar techniques but wider context
- Some different techniques incorporated within the medical model
  - See cautionary tale!
- No treatment plans but geared to findings

A Famous Comedian Explains!

Cautionary Tale!

Can All DOs Perform OMT Procedure?

- Yes! But not all do.

- PCPs vs specialty care
- NMM specialists

- Others trained…maybe?

When to Consider?

- Address global structural issues
  - Posture, gait imbalance, large areas of pain/dysfunction
- Reduce compensations and guarding
  - move towards ideal
- Other TX has failed to produce desired goals
- Pt. preference
- Very good for: fluid issues, VSR, cranial, ligament irritability, reduce MSK contribution to allostatic load

Contraindications and Cautions

- No absolute contraindications to those who specialize in OMT, but there are some generally accepted cautions:
  - Untreated malignancy
  - Recent fracture site
  - Pt. touch averse
  - Unstable joint/ligament laxity
  - Osteoporosis
  - Cauda Equina syndrome
  - Open wound
- These do not preclude OMT but choice of technique may change!

Frequent Questions

- How and when to order?
- How to find a DO who does OMT?
  - American Academy of Osteopathy (AAO) website
- How long does a treatment last?
- How often does it get done?
- Will the patient feel worse afterward?
- Can I (you) do OMT?

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Resources

- American Academy of Osteopathy (AAO)
  - https://www.academyofosteopathy.org/
- American osteopathic Association
  - https://osteopathic.org/
- Your states osteopathic association: Most states have them.

Thank you!

- Questions?