5 Things Your Osteopathic Residents Can Teach Your Allopathic Residents

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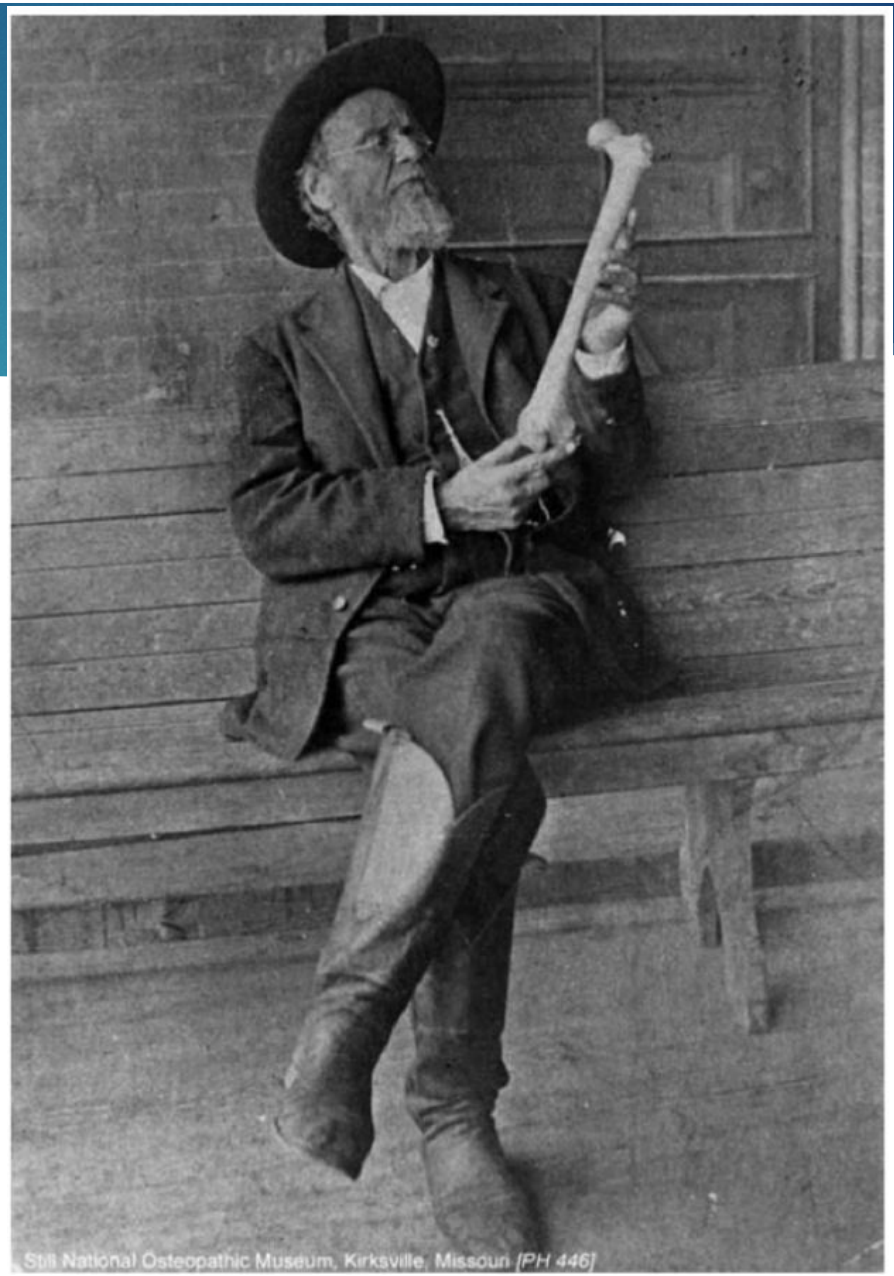
Disclosures

I have no actual or potential conflict of interest in relation to this program/presentation

#1 The Importance of Touch

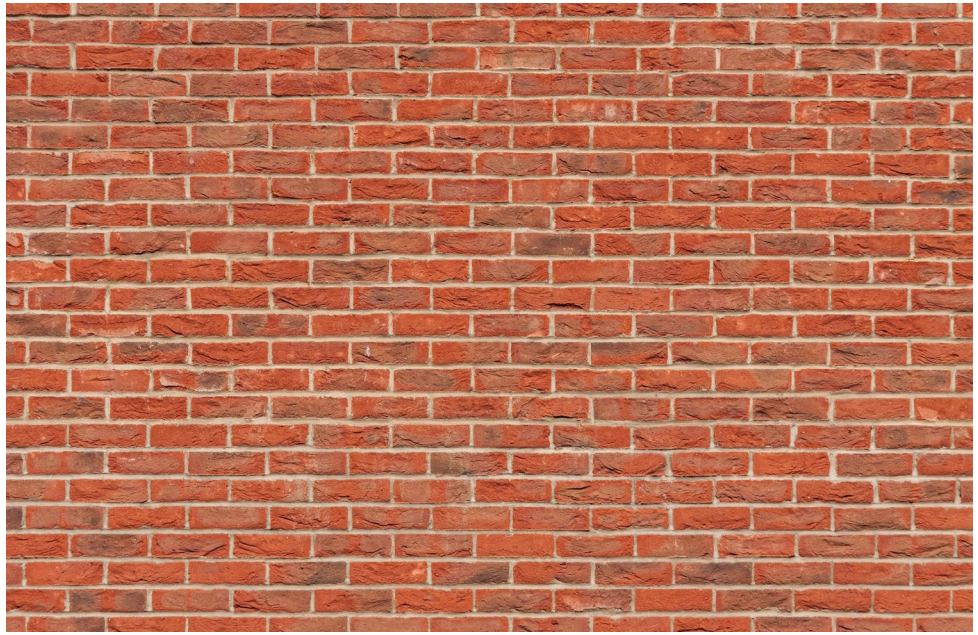
Touch as a means of learning

Osteopathic training was not originally about technique. It was about understanding the physical and anatomical findings that were consistent with health. It was about using our hands.



Touch as a way to connect

- One of the first things that we teach in osteopathic training
- This is about more than the physical contact – it is also about breaking down a wall that is very present between individual people
- Physical contact is necessary for life
- Physical contact is necessary for health



Ways for residents to bring this through

- Ways to bring this through
  - The Importance of Touch
  - The Physical Examination
  - TART

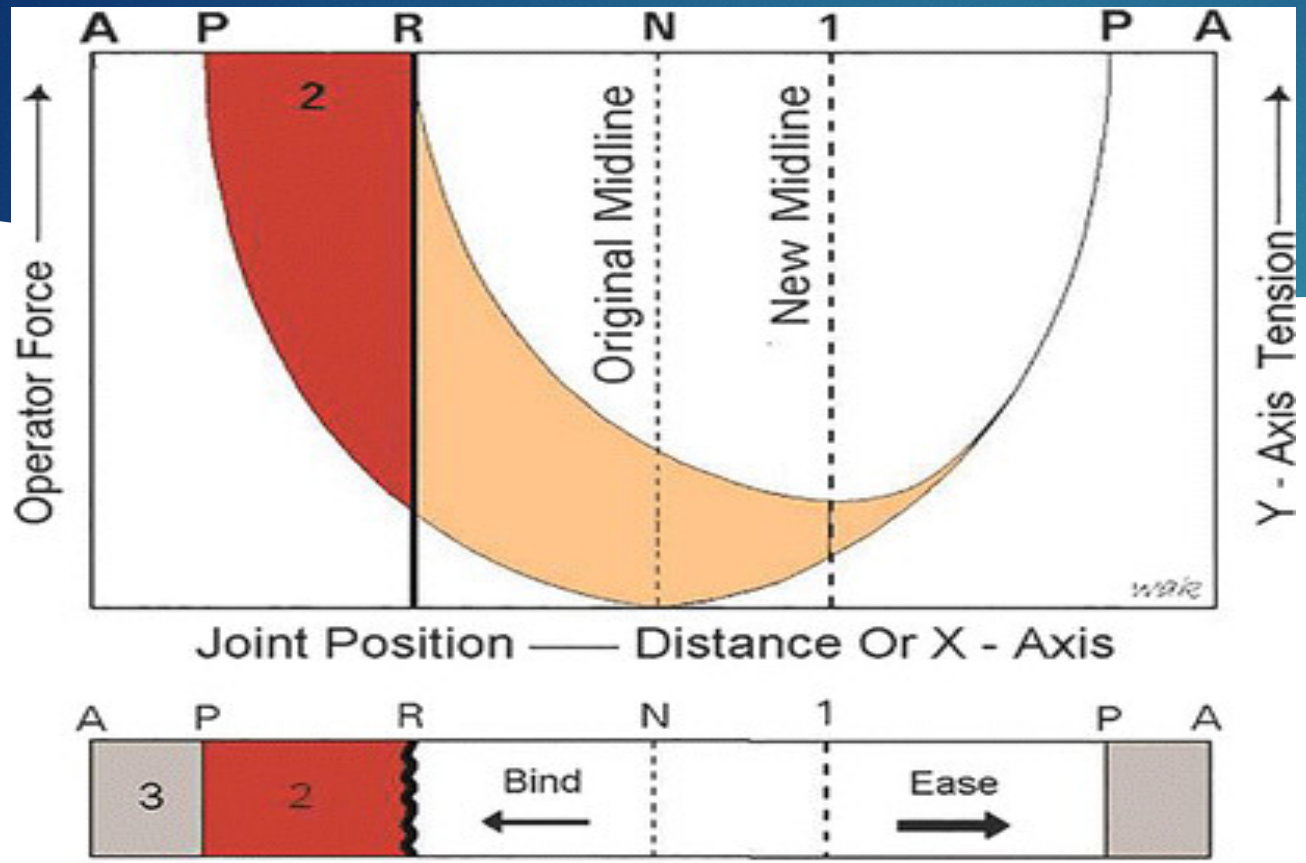
- Its about recognizing when something is wrong

#2 The Importance of Barriers

Physiologic vs Non-physiologic Barriers

- Hard to initially understand but becomes so integral to treatment that most osteopathic students forget that they didn't know how to effectively find a barrier

- This is something that is necessary for effective treatment
- This is something that has to be practiced



Key: A = Anatomic barrier
P = Physiologic barrier
R = Restrictive or "pathologic" barrier
N = Midline or original neutral point of motion
1 = New midline in plane with somatic dysfunction
2 = Motion loss in somatic dysfunction
3 = Range between physiologic and anatomic barriers
= Motion loss

Legend:

Somatic dysfunction quantity and quality of joint motion. (From Ward RC, exec, eds. Foundations of Osteopathic Medicine. 2nd ed. Philadelphia, PA: Lippincott Williams & Wilkins; 2003:852.)

The Neutral Point

- the position of a non-dysfunctional joint at rest, with equal myofascial forces pulling it in all directions

Types of Barriers

Physiologic Barrier

- a point at which a patient can actively more any given joint

Anatomic barrier

- a point at which a physician can passively move any given joint
- any movement beyond the anatomic barrier will cause ligament, tendon, or skeletal injury

Pathologic barrier

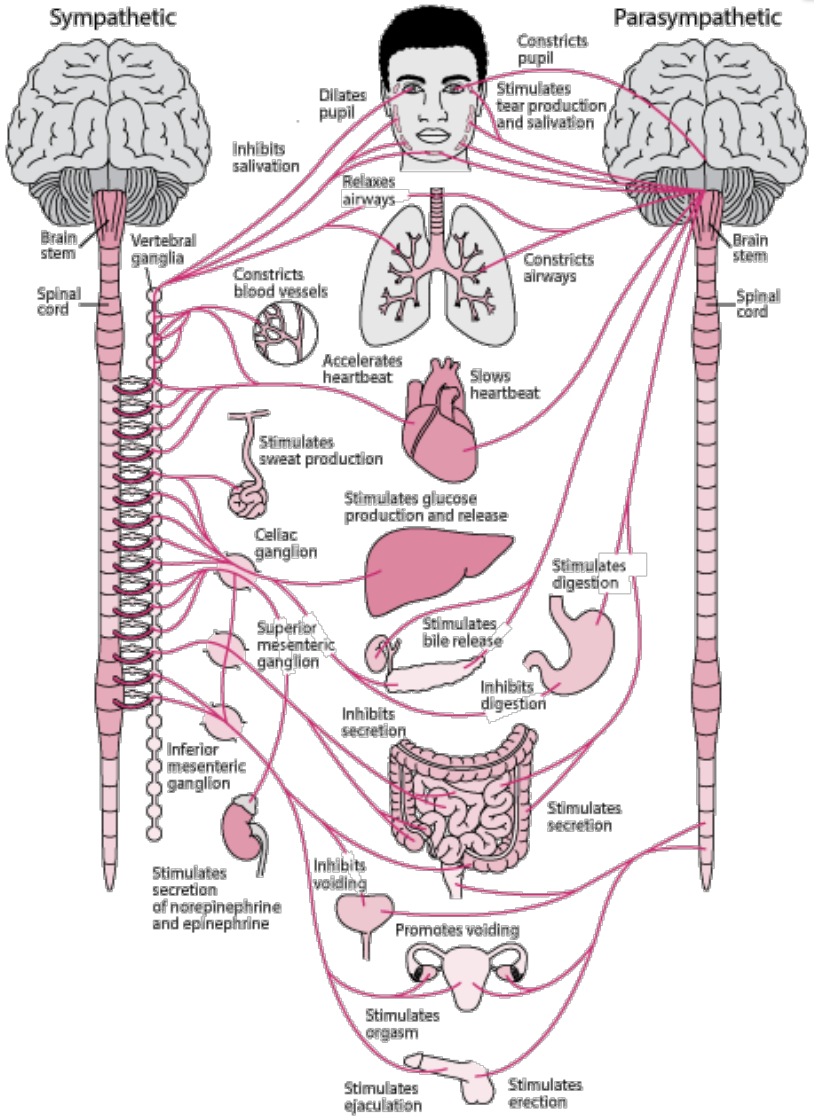
- a restrictive barrier due to a somatic dysfunction that lies before the physiologic barrier and prevent full range of motion of that joint

The “End feel”

- Quality of motion palpated when a joint is brought passively to its final barrier of motion.
  - the focal tissue turgor at the region of the somatic dysfunction
  - the tethering actions of the muscle and fascia, which are being stretched.

- Nebulous or rubbery
  - reflex-related somatic dysfunctions.
- Firm and distinctive
  - mechanical-type arthrodial dysfunctions.

#3 Using Autonomic Techniques



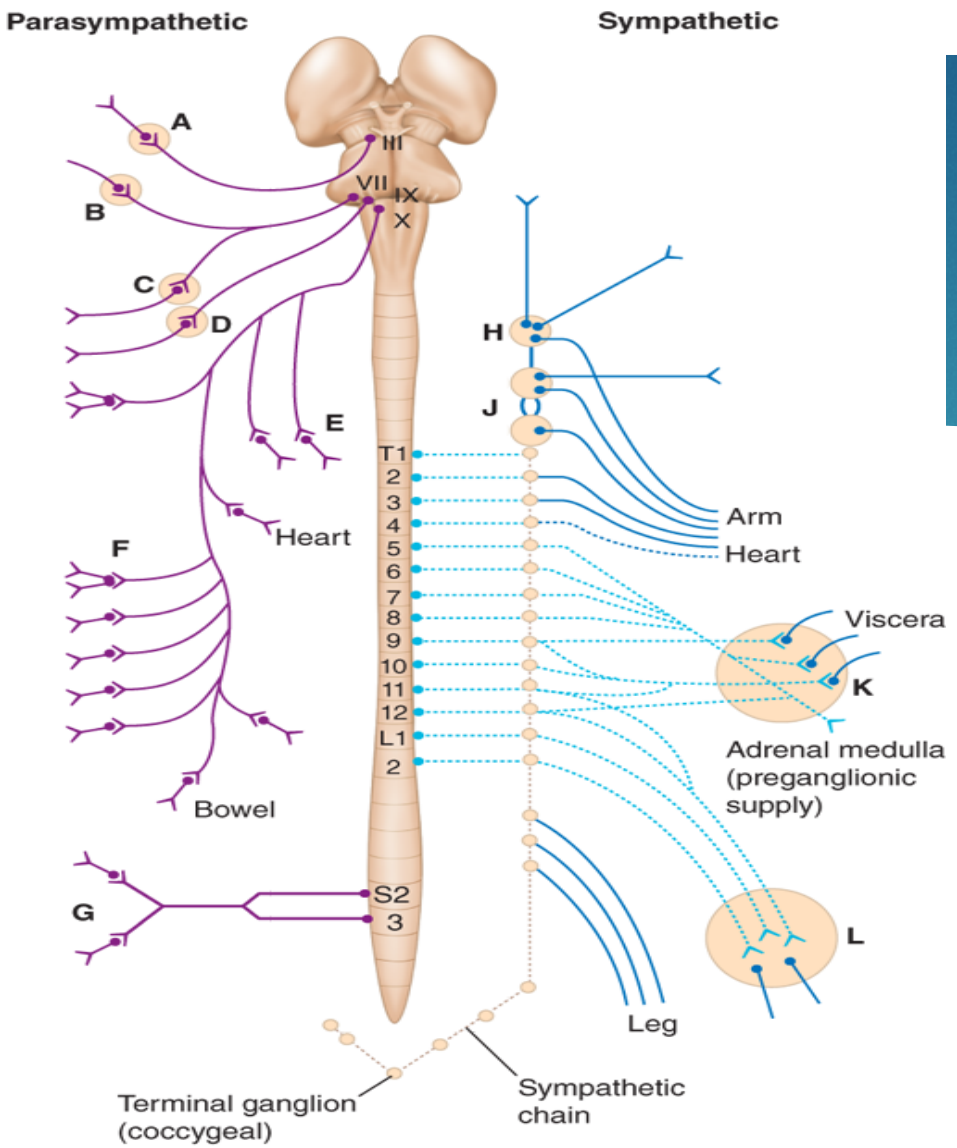
Common Ground

- Autonomic nervous system (ANS)
  - innervates the entire neuraxis
  - influences all organ systems
  - regulates blood pressure (BP), heart rate, sleep, glandular, pupillary, bladder and bowel function.
  - It maintains organ homeostasis and operates automatically

Osteopathic Tenets

1. The body is a unit; 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 upon an understanding of the basic principles of body unity, self-regulation, and the interrelationship of structure and function.

Autonomic Review



Parasympathetic system
from cranial nerves III, VII, IX, X and from sacral nerves 2 and 3

- **A** Ciliary ganglion
- **B** Sphenopalatine (pterygopalatine) ganglion
- **C** Submandibular ganglion
- **D** Otic ganglion
- **E** Vagal ganglion cells in the heart wall
- **F** Vagal ganglion cells in bowel wall
- **G** Pelvic ganglia

Sympathetic system
from T1-L2
Preganglionic fibers
Postganglionic fibers

- **H** Superior cervical ganglion
- **J** Middle cervical ganglion and inferior cervical (stellate) ganglion including T1 ganglion
- **K** Coeliac and other abdominal ganglia
- **L** Lower abdominal sympathetic ganglia

Source: J.L. Jameson, A.S. Fauci, D.L. Kasper, S.L. Hauser, D.L. Longo, J. Loscalzo: Harrison's Principles of Internal Medicine, 20th Edition

Schematic representation of the autonomic nervous system. (From M Moskowitz: Clin Endocrinol Metab 6:77, 1977.)

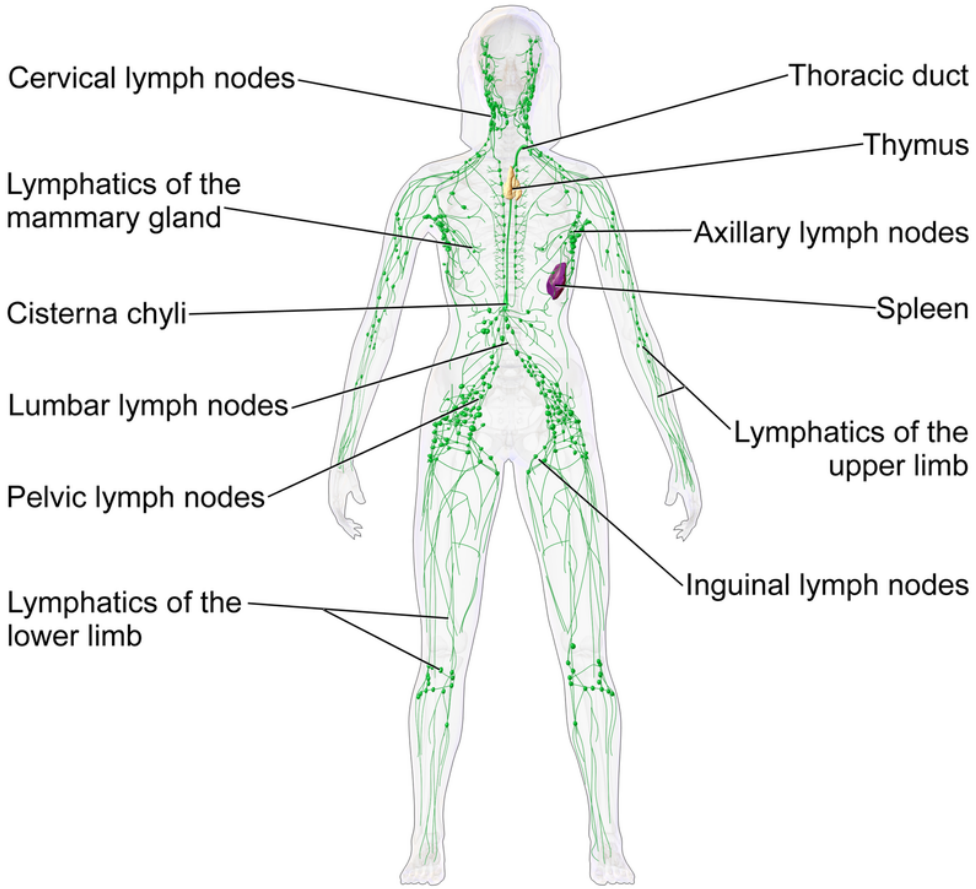
Citation: Disorders of the Autonomic Nervous System, Jameson J, Fauci AS, Kasper DL, Hauser SL, Longo DL, Loscalzo J. *Harrison's Principles of Internal Medicine, 20e;* 2018. Available at: https://accessmedicine.mhmedical.com/content.aspx?sectionid=192532741&bookid=2129&Resultclick=2 Accessed: May 02, 2019

Techniques – where to start

- Suboccipital decompression
  - Vagus Nerve balance
  - Parasympathetic

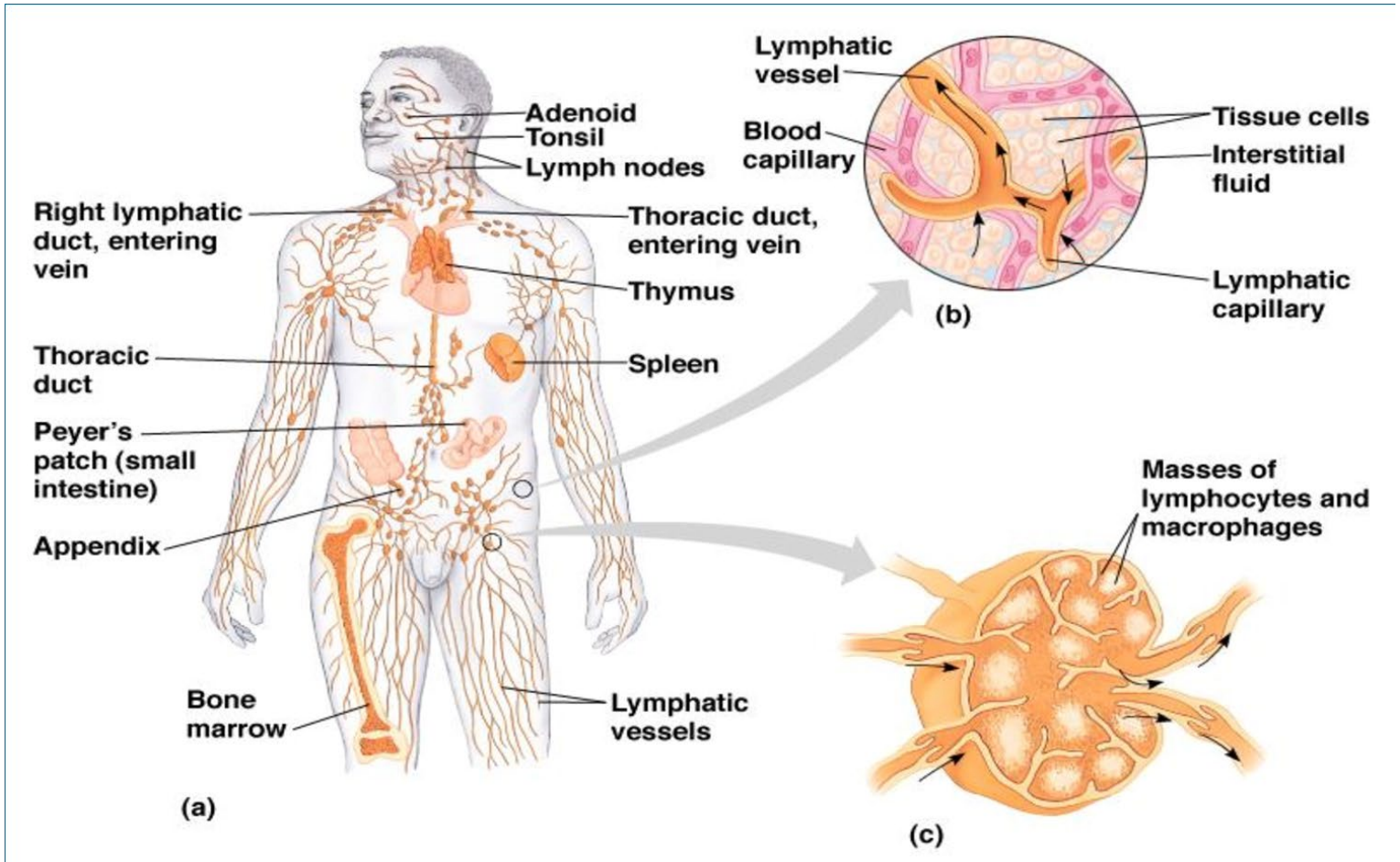
- Rib raising
  - Sympathetic Chain Stimulation

#4 Using Lymphatic Techniques



The Lymphatic System

- Network of tissues and organs that help rid the body of toxins, waste and other unwanted materials
- Primary function of the lymphatic system is to transport lymph, a fluid containing infection-fighting white blood cells, throughout the body.



Techniques – Where to Start

- Thoracic pump

- Pedal pump

#5 Muscle Energy Manipulation

Muscle Energy Techniques

Treatment that requires exertion of the patient's muscles

- on request
- from a precisely controlled position
- in a specific direction
- against a distinctly executed counterforce

Postisometric relaxation

- mobilization technique that applies gentle force to improve "articulation," and thereby restore previously restricted motion.

Cautions and Contraindications

- Patient is in a coma, uncooperative, too young to follow commands, or unresponsive
-
- Very safe technique generally
- Very versatile and can be used in conjunction with other techniques

How it is performed

- Accurate diagnosis
- Position the body part to be treated at the position where the restrictive barrier is just beginning to be engaged, or where the tissue tension is just palpable
- Physician helps the patient obtain an effective direction of movement
- Physician directs the patient to contract the appropriate muscle(s) or muscle group
- Physician applies counterforce in opposition to and equal to the patient's muscle contraction
- Generally requires 3 to 5 seconds, but the duration varies with the size of the muscle being treated
- Patient is directed to relax by gently ceasing the contraction, while the physician simultaneously matches the decrease in patient force.
- This usually takes 1 to 2 seconds (postrelaxation phase)
- Physician takes up the slack permitted by the procedure (e.g., moving the joint towards its new restrictive barrier in all three planes in the case of an isometric muscle energy procedure)

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