



The Five Models Made Practical:

Teaching Osteopathic Students In Any Clinical Setting

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OBJECTIVES

- Describe the Five Models of Osteopathic Care and their role in guiding osteopathic clinical reasoning and patient-centered care.
- Apply the Five Models of Osteopathic Care to identify opportunities for osteopathic medical students to incorporate osteopathic principles and osteopathic manipulative treatment (OMT) into common clinical encounters.
- Demonstrate effective precepting strategies that encourage osteopathic students to explain their clinical reasoning, perform an osteopathic structural examination when appropriate, and integrate osteopathic principles into evidence-based patient care.

Structure and Function

The body's structure and movement influence health and function.



NEUROLOGIC

Nervous System Influences

The nervous system regulates, coordinates, and influences all body functions.



The Five Models of Osteopathic Care

A whole-person approach to health and healing

Mind-Body Connection

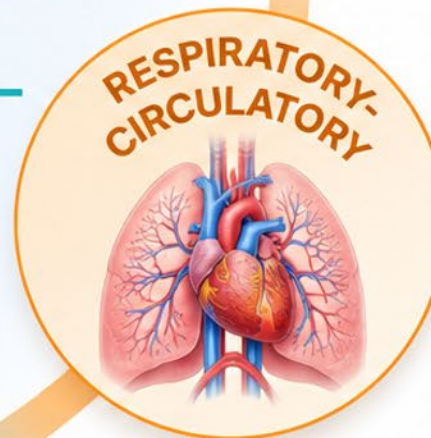
Emotions, beliefs, behaviors, and relationships influence health and well-being.



RESPIRATORY-CIRCULATORY

Circulation and Respiration

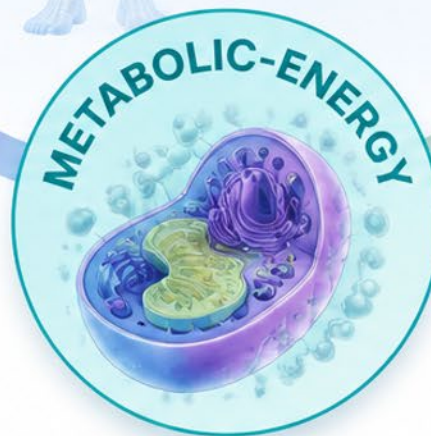
Efficient respiratory and circulatory function supports optimal health.



METABOLIC-ENERGY

Energy and Metabolism

The body's ability to obtain, use, and balance energy is essential for healing and maintenance.



5 MODELS

Model	Physiologic Functions	Anatomic Correlates	Patient Care*
Biomechanical 	Posture and motion	Postural muscles, spine, extremities	Alleviate SD to restore normal motion and function throughout
Respiratory-Circulatory 	Respiration, circulation, venous and lymphatic drainage	Diaphragms- thoracic inlet, thoracic/abdominal, pelvic, tentorium cerebelli, costal cage	Remove mechanical impediments to respiration and circulation and relieve congestion and edema by improving venous and lymphatic drainage
Neurological 	Control, coordination, and integration of body functions; sensation	Head(organs of senses), brain, spinal cord, Autonomics , peripheral nerves, Chapman's Points	Restore normal sensation, neurologic processes, and control

5 MODELS (CONTINUED)

Model	Physiologic Functions	Anatomic Correlates	Patient Care*
Metabolic-Energy 	Metabolic processes, homeostasis, energy balance, regulatory processes; immunological activities and inflammation and repair; digestion, absorption of nutrients, removal of waste; reproduction	Internal organs, endocrine glands	Restore efficient metabolic processes and bio-energetics, alleviate inflammation and infection, restore healing, repair functions and endocrine control
Behavioral 	Psychological and social activities (ex- anxiety, stress, work, family); habits (ex- sleep, drug use, sexual activities, exercise); values, beliefs	Brain	Assess and treat the whole person; collaborative partnership; individualized care



CASE #1

- **42-year-old M warehouse worker with acute low back pain after lifting boxes yesterday.**
 - History
 - Pain localized to right lumbar region
 - Worse with bending
 - PE
 - No neurologic deficits
 - No red flags
 - **Student suggests OMT**

CASE #2



55-year-old woman with 6 mo of headaches that worsen with stress and neck pain. She has 4-5 per week for the last 8 months

➤ History

- 8-10 hrs per day at a computer
- Denies N/V/D
- Well-controlled HTN and Anxiety

➤ PE

- CN II-XII intact
- No red flags

CASE #3



- **42-year-old M warehouse worker with acute low back pain after lifting boxes yesterday.**

- **History**

- Pain localized to right lumbar region
- Worse with bending

- **PE**

- No neurologic deficits
- No red flags

- **Student suggests OMT**

CASE #4

- 61-year-old man with obesity, poorly controlled diabetes, chronic knee osteoarthritis, and fatigue
- History
 - Pain localized to right lumbar region
 - Worse with bending
- PE
 - No neurologic deficits
 - No red flags
- **Student suggests OMT**



CASE #5

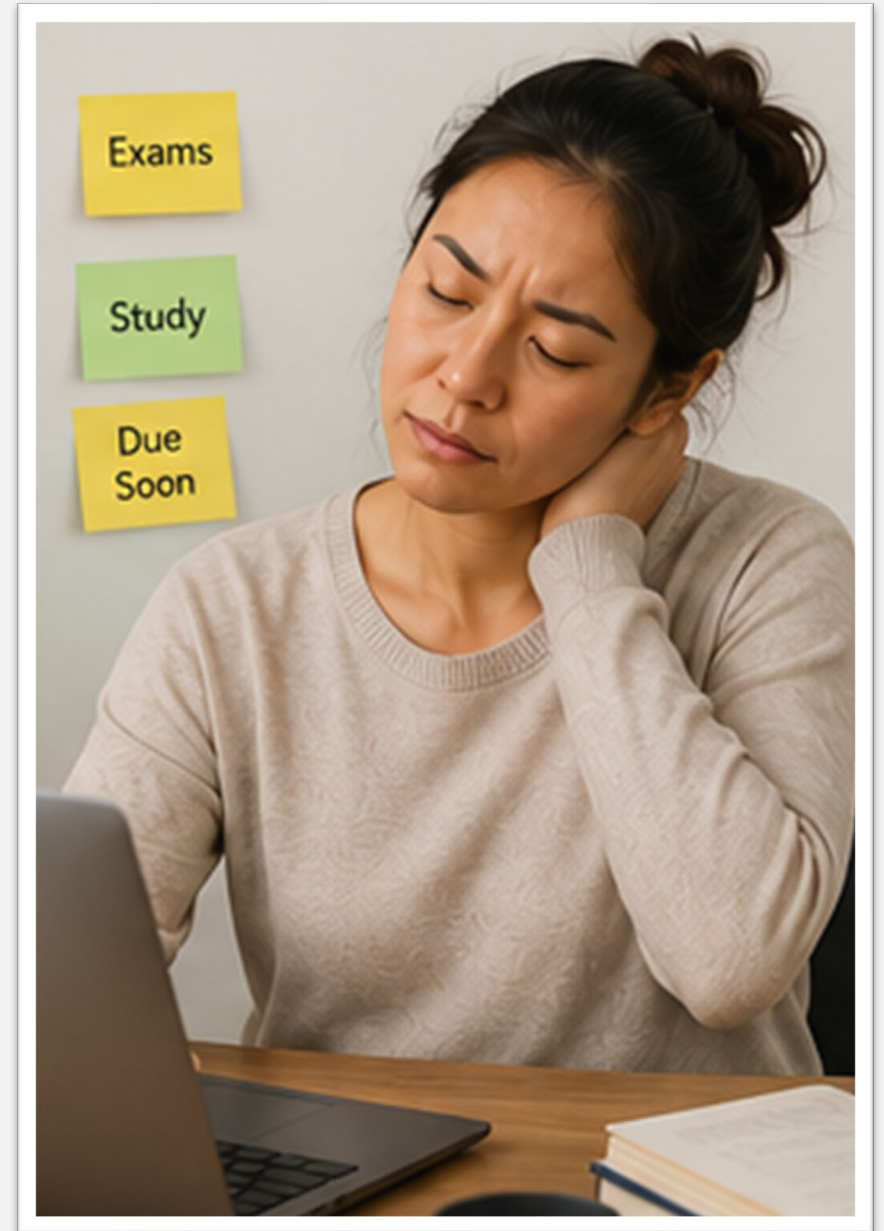
29-year-old graduate student with chronic neck pain during examination week.

➤ History

- Poor sleep
- High Stress

➤ PE

- No neurologic deficits



CASE #6

74 to F with chronic LBP

- History
 - Heart Failure
 - Diabetes
 - Poor sleep
 - Deconditioning
 - Falls
- PE
 - No neurologic deficits



Autonomics: Visceral Innervation

Viscera	Sympathetic (Spinal Levels)	Parasympathetic
Head and Neck	T1–4	CN III, VII, IX, X
Heart	T1–5	Vagus
Lung	T2–7	Vagus
Esophagus	T3–6	Vagus
Stomach	T5–9	Vagus
Liver	T5–9	Vagus
Gallbladder	T5–9	Vagus
Spleen	T5–9	Vagus
Pancreas	T5–9	Vagus
Duodenum (before ligament of Treitz)	T5–9	Vagus
Jejunum	T10–11	Vagus
Ileum	T10–11	Vagus
Ascending Colon & Proximal 2/3 Transverse Colon (Appendix)	T10–11	Vagus
Distal 1/3 Transverse Colon	T12–L2	S2–4
Descending & Sigmoid Colon	T12–L2	S2–4
Rectum	T12–L2	S2–4

Autonomics: Visceral Innervation Continued

Viscera	Sympathetic (Spinal Levels)	Parasympathetic
Kidneys	T10–L1	Vagus
Adrenal Medulla	T10–11	Vagus
Upper Ureters	T10–11	Vagus
Lower Ureters	T12–L1	S2–4
Bladder	T11–L2	S2–4
Gonads	T10–11	S2–4
Uterus and Cervix	T10–L2	S2–4
Erectile Tissue (Penis/Clitoris)	T11–L2	S2–4
Prostate	T11–L2	S2–4
Upper Extremities	T2–7	None
Lower Extremities	T10–L2	None

FINAL DISCUSSION

- What model best explains the patient's symptoms?
- What evidence supports your reasoning?
- What structural findings did you identify?
- Would OMT contribute to this patient's care?
- What contraindications should we consider?
- How does OMT complement the rest of the treatment plan?
- How will you measure whether your treatment was successful?



References

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