



**NBOOME**<sup>®</sup>  
NATIONAL BOARD OF OSTEOPATHIC MEDICAL EXAMINERS



# COMPLEX-USA BLUEPRINT

REVISED FEBRUARY 2025

**COMLEX-USA**

**BLUEPRINT**

EFFECTIVE BEGINNING SEPTEMBER 2018  
REVISED FEBRUARY 2025

# Contents

## Introduction

Foundation for COMLEX-USA	3
Two Distinct Dimensions	4
Blueprint Schematic	5
Licensure Assessment Aligned with Medical Education Pathway	6
Test Specification Percentages for Each Examination	8

## Dimension 1: Competency Domains

Osteopathic Principles, Practice, and Manipulative Treatment	10
Osteopathic Patient Care and Procedural Skills	13
Application of Knowledge for Osteopathic Medical Practice	16
Practice-Based Learning and Improvement in Osteopathic Medical Practice	18
Interpersonal and Communication Skills in the Practice of Osteopathic Medicine	21
Professionalism in the Practice of Osteopathic Medicine	24
Systems-Based Practice in Osteopathic Medicine	27

## Dimension 2: Clinical Presentations

Community Health and Patient Presentations Related to Wellness	30
Patient Presentations Related to: Human Development, Reproduction, and Sexuality	32
Patient Presentations Related to: Endocrine System and Metabolism	35
Patient Presentations Related to: Nervous System and Mental Health	38
Patient Presentations Related to: Musculoskeletal System	42
Patient Presentations Related to: Genitourinary/Renal System and Breasts	45
Patient Presentations Related to: Gastrointestinal System and Nutritional Health	48
Patient Presentations Related to: Circulatory and Hematologic Systems	51
Patient Presentations Related to: Respiratory System	54
Patient Presentations Related to: Integumentary System	57

## References

# Introduction

The Comprehensive Osteopathic Medical Licensing Examination of the United States (COMLEX-USA) is the pathway to licensure for osteopathic physicians seeking to practice medicine. It is the principal means by which the NBOME delivers on its mission to protect the public by providing assessment of competencies for osteopathic physicians and related health care professions.

The COMLEX-USA examination series is designed to assess osteopathic medical knowledge, fundamental clinical skills, and other foundational competencies considered essential for the practice of osteopathic medicine. The primary and intended purpose of COMLEX-USA is for licensure of osteopathic physicians, and COMLEX-USA is accepted for medical licensure in all 50 states and US territories.

The COMLEX-USA Blueprint emphasizes the competencies required for generalist physicians to deliver safe and effective osteopathic medical care. The foundation of COMLEX-USA is the osteopathic approach to patient care. Its evidence-based design assures state licensing boards and the public that a DO has demonstrated minimal competence by passing a series of national standardized examinations designed for the practice of osteopathic medicine. Aligned with the education and training pathway of a DO, passing Levels 1 and 2-CE of COMLEX-USA is required for graduation with a DO degree and entry into residency training.

In the years since its implementation, the COMLEX-USA Blueprint has been reviewed and revised regularly to reflect the practice of osteopathic medicine, consistent with the recommendations of the *Standards for Educational and Psychological Testing 2014* established by the American Educational Research Association (AERA), the American Psychological Association (APA), and the National Council on Measurement in Education (NCME). The design of COMLEX-USA has transitioned from its initial conjunctive, discipline-based content organization in 1995 to today's innovative blueprint.

The current COMLEX-USA Blueprint, implemented beginning with [Level 3](#) in September 2018, features a framework that maps content to competency domains and clinical presentations. The COMLEX-USA Blueprint and test specifications for each exam were then introduced into [Level 1](#), [Level 2-PE](#), and [Level 2-CE](#) with the test cycles beginning in 2019.

Further information on the development of the COMLEX-USA Blueprint is described in “Evidence-Based Redesign of the COMLEX-USA Series” (John R. Gimpel, DO, MEd; Dorothy Horber, PhD; Jeanne M. Sandella, DO; Janice A. Knebl, DO; John E. Thornburg, DO, PhD), *The Journal of the American Osteopathic Association*, April 2017, Vol. 117, pp. 253–261. doi:10.7556/jaoa.2017.043.

# Foundation for COMLEX-USA

Osteopathic principles and practice continue to form the foundation of COMLEX-USA within both of its dimensions.

## 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.

# Two Distinct Dimensions

COMLEX-USA examination content is organized by two dimensions: Dimension 1, Competency Domains and Dimension 2, Clinical Presentations.

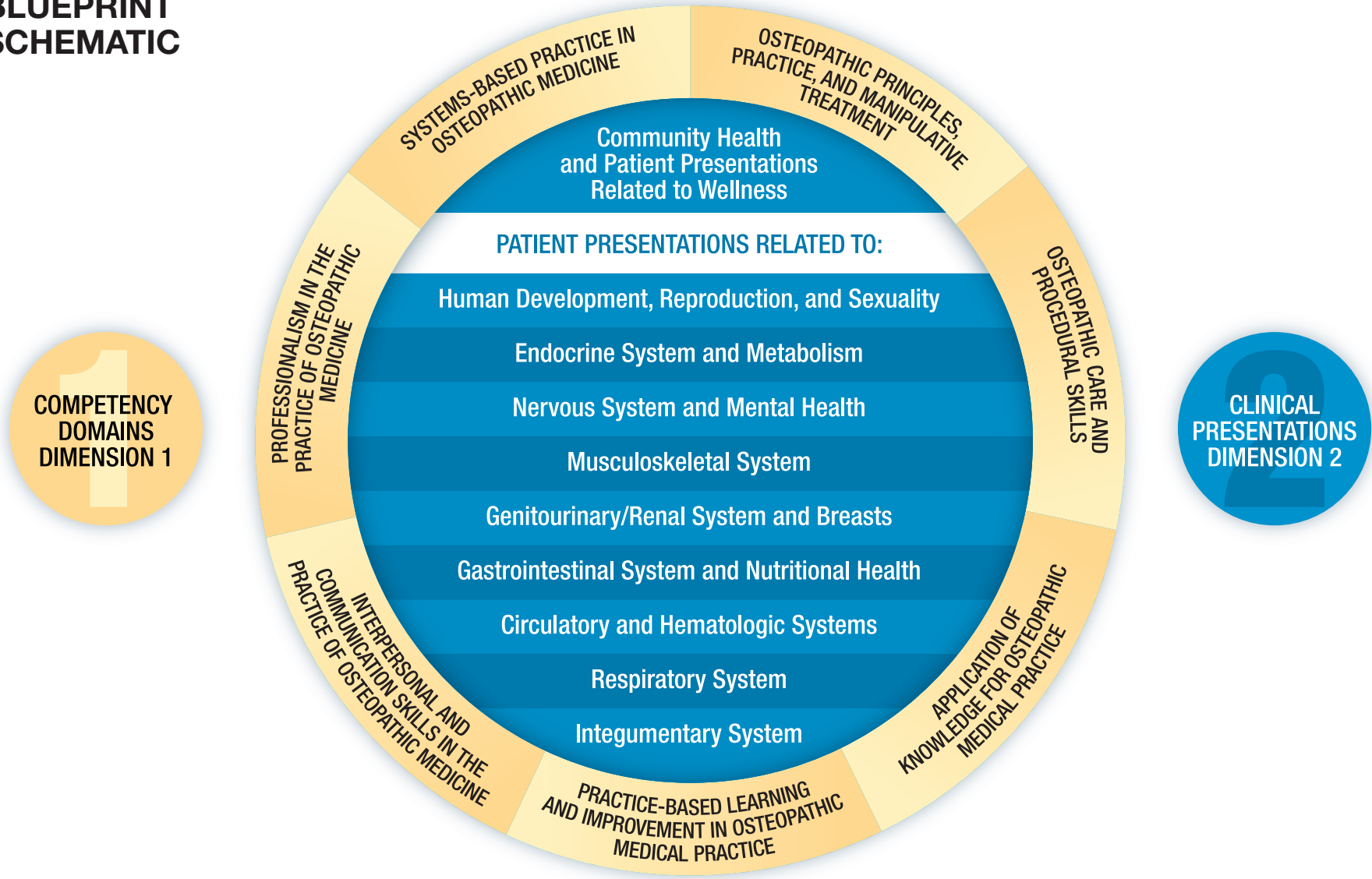
## **DIMENSION 1: COMPETENCY DOMAINS**

Dimension 1 of the COMLEX-USA Blueprint consists of the **seven COMPETENCY DOMAINS**, the related sets of foundation abilities representing the required elements and outcomes that define osteopathic knowledge, skills, experience, attitudes, values, behaviors, and established professional standards. Each competency domain is described in detail with required elements and measured outcomes. For each examination in the series, test specifications outline the content coverage as it relates to these seven competency domains.

## **DIMENSION 2: CLINICAL PRESENTATIONS**

Dimension 2 of the COMLEX-USA Blueprint consists of the **10 CLINICAL PRESENTATIONS**, which represent the manner in which a particular patient, group of patients, or a community present(s) for osteopathic medical care. These high-frequency, high-impact categories are based on evidence from osteopathic medical practice. Patient presentations span all relevant age categories, special populations, and varied clinical settings. Each clinical presentation is described in detail, further categories into topics with accompanying guides, and provides examples illustrative of the presentation. For each examination in the series, test specifications outline the content coverage as it relates to the 10 clinical presentations.

## BLUEPRINT SCHEMATIC



## LICENSURE ASSESSMENT ALIGNED WITH MEDICAL EDUCATION PATHWAY

Candidates will be required to demonstrate minimal competency across each of the seven competency domains. The outline for implementation of the two-decision-point, competency-based COMLEX-USA Blueprint is depicted here:

COMLEX-USA EXAMINATION PROGRAM			
LEVEL 1	LEVEL 2-CE	LEVEL 2-PE*	LEVEL 3
ASSESSMENT PURPOSE			
Successful promotion along licensure pathway for entry into graduate medical education: “supervised practice”			Successful promotion in graduate medical education for licensure: “unsupervised practice”
DECISION POINT 1	DECISION POINT 1	DECISION POINT 1	DECISION POINT 2
One-day computer-based examination consisting of 352 multiple-choice test questions	One-day computer-based examination consisting of 352 predominantly multiple-choice test questions	One-day 12-station standardized patient-based performance evaluation of fundamental clinical skills	Two-day computer-based examination consisting of 420 multiple-choice test questions, clinical decision-making cases, and other novel test item formats (approx. 26 additional clinical cases)

\*Please note that the Level 2-PE has been discontinued. For Level 3 eligibility pathways and details, please visit the [NBOME website](#).

## CONTENT ACROSS THE EXAMINATION SERIES

<b>COMPETENCY DOMAINS: DIMENSION 1</b>		<b>MINIMUM</b>
1	Osteopathic Principles, Practice, and Manipulative Treatment	10%
2	Osteopathic Patient Care and Procedural Skills	25%
3	Application of Knowledge for Osteopathic Medical Practice	30%
4	Practice-Based Learning and Improvement in Osteopathic Medical Practice	5%
5	Interpersonal and Communication Skills in the Practice of Osteopathic Medicine	10%
6	Professionalism in the Practice of Osteopathic Medicine	5%
7	Systems-Based Practice in Osteopathic Medicine	5%
<b>CLINICAL PRESENTATIONS: DIMENSION 2</b>		<b>MINIMUM</b>
1	Community Health and Patient Presentations Related to Wellness	12%
2	Human Development, Reproduction, and Sexuality	5%
3	Endocrine System and Metabolism	5%
4	Nervous System and Mental Health	10%
5	Musculoskeletal System	13%
6	Genitourinary/Renal System and Breasts	5%
7	Gastrointestinal System and Nutritional Health	10%
8	Circulatory and Hematologic Systems	10%
9	Respiratory System	10%
10	Integumentary System	5%



## TEST SPECIFICATIONS FOR EACH EXAMINATION

DIMENSION 1: COMPETENCY DOMAINS		TEST SPECIFICATION PERCENTAGES					Series Minimum
		Level 1	Level 2-CE	Level 2-PE <sup>+</sup>		Level 3	
				HUM*	BM/BM*		
1	Osteopathic Principles, Practice, and Manipulative Treatment	12%	10%	0%	15%	10%	10%
2	Osteopathic Patient Care and Procedural Skills	6%	30%	0%	25%	40%	25%
3	Application of Knowledge for Osteopathic Medical Practice	60%	26%	0%	15%	15%	30%
3.1	Foundational Biomedical Sciences Knowledge Base	75%	25%			10%	
4	Practice-Based Learning and Improvement in Osteopathic Medical Practice	4%	7%	0%	5%	8%	5%
5	Interpersonal and Communication Skills in the Practice of Osteopathic Medicine	3%	5%	60%	20%	5%	10%
6	Professionalism in the Practice of Osteopathic Medicine	3%	7%	30%	5%	6%	5%
7	Systems-Based Practice in Osteopathic Medicine	2%	5%	0%	5%	6%	5%

DIMENSION 2: CLINICAL PRESENTATIONS		Level 1	Level 2-CE	Level 2-PE <sup>+</sup>	Level 3	Series Minimum
1	Community Health and Patient Presentations Related to Wellness	12%	12%	14%	12%	12%
2	Human Development, Reproduction, and Sexuality	5%	5%		5%	5%
3	Endocrine System and Metabolism	5%	5%		5%	5%
4	Nervous System and Mental Health	10%	10%	14%	10%	10%
5	Musculoskeletal System	13%	13%	14%	13%	13%
6	Genitourinary/Renal System and Breasts	5%	5%		5%	5%
7	Gastrointestinal System and Nutritional Health	10%	10%	14%	10%	10%
8	Circulatory and Hematologic Systems	10%	10%	14%	10%	10%
9	Respiratory System	10%	10%	14%	10%	10%
10	Integumentary System	5%	5%		5%	5%

+For the classes of 2020-2027, the Level 2-PE is substituted with verification by a candidate's COM dean that they are proficient in these important clinical skills.

\*HUM: Humanistic Domain | BM/BM: Biomedical/Biomechanical Domain

COMPETENCY DOMAINS are related sets of foundational abilities representing the required elements and outcomes that define knowledge, skills, experience, attitudes, values, behaviors, and established professional standards. They constitute a general descriptive framework for the practice of osteopathic medicine. **Required elements** articulate the essential foundational specifications, including specific, definable knowledge, skills, experiences, attitudes, values, and/or behaviors that make up the standards for the competency domain. **Measured outcomes** can be directly assessed in a reliable manner in the assessments that make up the COMLEX-USA examination program.

- 1. Osteopathic Principles, Practice, and Manipulative Treatment**
- 2. Osteopathic Care and Procedural Skills**
- 3. Application of Knowledge for Osteopathic Medical Practice**
- 4. Practice-Based Learning and Improvement in Osteopathic Medical Practice**
- 5. Interpersonal and Communication Skills in the Practice of Osteopathic Medicine**
- 6. Professionalism in the Practice of Osteopathic Medicine**
- 7. Systems-Based Practice in Osteopathic Medicine**

# Overview

Osteopathic physicians must demonstrate knowledge of osteopathic principles and practice such that care of patients is approached from the distinct behavioral, philosophical, and procedural aspects of osteopathic medical practice related to the four tenets of osteopathic medicine: 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; and 4) rational treatment is based on an understanding of the basic principles of body unity, self-regulation, and the interrelationship of structure and function. While osteopathic tenets are considered foundational to the other competency domains herein, this classification emphasizes the distinctive osteopathic foundation and approach to patient care, including osteopathic principles, the treatment of somatic dysfunction, and the use of osteopathic manipulative treatment (OMT). Osteopathic physicians must recognize, diagnose, and treat patients with somatic dysfunction using OMT in the clinical setting. The AACOM 2017 *Glossary of Osteopathic Terminology* defines OMT and somatic dysfunction as follows:

“osteopathic manipulative treatment (OMT): the therapeutic application of manually guided forces by an osteopathic physician...to improve physiologic function and/or support homeostasis that has been altered by somatic dysfunction.”

“somatic dysfunction: impaired or altered function of related components of the body framework system: skeletal, arthrodiagonal and myofascial structures, and their related vascular, lymphatic, and neural elements... Somatic dysfunction is treatable using osteopathic manipulative treatment.”

## REQUIRED ELEMENT 1.1

KNOWLEDGE OF OSTEOPATHIC PRINCIPLES, PRACTICE, AND OMT

## REQUIRED ELEMENT 1.2

SKILLS IN OSTEOPATHIC PRINCIPLES, PRACTICE, AND OMT

## REQUIRED ELEMENT 1.3

INTEGRATION OF OSTEOPATHIC PRINCIPLES, PRACTICE, AND OMT INTO CARE

**REQUIRED ELEMENT 1.1**KNOWLEDGE OF OSTEOPATHIC PRINCIPLES,  
PRACTICE, AND OMT**DEFINITION**

The osteopathic physician must demonstrate an understanding of osteopathic principles and practice, including knowledge of the basic science, mechanisms of action, and physical findings of somatic dysfunction, and basic application of OMT.

**MEASURED OUTCOMES**

The osteopathic physician must:

- describe the concept of body-mind-spirit unity and recognize its role in whole-person health care.
- describe the concept of interrelatedness of structure and function in the human body and how it guides physical examination for patient presentations, including biomechanical, respiratory, circulatory, neurologic, biopsychosocial, and metabolic structure-function relationships and their effect on the body's self-regulating and self-healing capabilities.
- describe the reciprocal effects of dysfunction within the musculoskeletal system and dysfunction within the vascular, lymphatic, neurologic, and organ systems.
- describe how the human body's self-healing and self-regulatory mechanisms affect treatment options.
- describe the scientific knowledge supporting the use of osteopathic principles, practice, and OMT, including the basic science of the mechanisms of OMT and of somatic dysfunction, and the current evidence base for the clinical application of OMT and the role of the osteopathic physician to facilitate health.
- name and define the types of physical examination findings that are consistent with somatic dysfunction.

- name, define, and describe the types of somatic dysfunction found within the 10 body regions, which are the head, cervical, thoracic, lumbar, sacral, pelvic, lower extremity, upper extremity, rib, and abdominal/visceral regions.
- describe the underlying mechanisms, signs, symptoms, and physical findings associated with viscerosomatic, somatovisceral, viscerovisceral, and somatosomatic reflexes.
- name and describe the diagnostic examination, initial positioning, monitoring, motion barriers, activating forces, therapeutic timing, repetition, and reassessments used in indirect and direct technique types of OMT, including the following: counterstrain; muscle energy; myofascial release; high velocity, low amplitude; soft tissue; lymphatic; osteopathic cranial manipulative medicine; articular; balanced ligamentous tension; ligamentous articular strain; facilitated positional release; Still; visceral; treatment of Chapman reflexes; and treatment of trigger points.
- identify the indications and contraindications of different OMT techniques.
- compare and contrast the relative value, advantages, and disadvantages of different OMT techniques.
- describe the impact of cultural, socioeconomic, and environmental considerations and of personal perspectives on a patient's health.

**REQUIRED ELEMENT 1.2**SKILLS IN OSTEOPATHIC PRINCIPLES, PRACTICE,  
AND OMT**DEFINITION**

The osteopathic physician must be able to apply osteopathic principles, including the use of OMT, to an appropriate patient care plan.

**MEASURED OUTCOMES**

The osteopathic physician must:

- incorporate osteopathic principles into problem solving in clinical settings.
- obtain medical, family, social, and cultural histories from or about the patient pertinent to the presenting concern, with emphasis on assessing potential structure-function and body-mind-spirit relationship influences.
- perform an appropriate osteopathic structural examination before and reassessment after administration of OMT.
- diagnose somatic dysfunction within the 10 body regions (head, cervical, thoracic, lumbar, sacral, pelvic, lower extremity, upper extremity, rib, and abdominal/visceral), prioritize a differential diagnosis, and develop an appropriate care plan.
- perform effective indirect and direct technique types of OMT and associated elements, including diagnostic examination, initial positioning, monitoring, motion barriers, activating forces, therapeutic timing, repetition, and reassessment. The technique types of OMT include: counterstrain; muscle energy; myofascial release; high velocity, low amplitude thrust; soft tissue; lymphatic; osteopathic cranial manipulative medicine; articular; balanced ligamentous tension; ligamentous articular strain; facilitated positional release; Still; visceral; treatment of Chapman reflexes; and treatment of trigger points.
- provide for the safety and dignity of the patient while diagnosing somatic dysfunction and administering OMT.
- communicate principles of and demonstrate use of appropriate therapeutic and rehabilitative exercises, activity modification, and supportive and adaptive devices in the management of neuromusculoskeletal dysfunction and facilitation of health.
- generate or develop a patient's care plan, respecting the patient's cultural, socioeconomic, and environmental considerations and their personal perspectives.



**REQUIRED ELEMENT 1.3**INTEGRATION OF OSTEOPATHIC PRINCIPLES,  
PRACTICE, AND OMT INTO CARE**DEFINITION**

The osteopathic physician must demonstrate sufficient depth of knowledge and skills to recognize, diagnose, and treat patients who have somatic dysfunctions, using OMT in the clinical setting.

**MEASURED OUTCOMES**

The osteopathic physician must:

- apply osteopathic principles and practice in health and disease to resolve concerns with which patients commonly present, placing particular emphasis on optimizing homeostasis and maximizing the patient's comfort and health.
- advocate for the administration of OMT in appropriate clinical settings.
- identify viscerosomatic relationships and the role of the musculoskeletal system in the patient presentation by performing an osteopathic structural examination.
- demonstrate respect to all patients, including but not limited to respecting diversity in ethnicity, culture, gender identity and/or sexual orientation, and religious beliefs, who may express the symptoms of their somatic and/or visceral dysfunctions in various ways.
- document diagnostic information to allow for appropriate coding for evaluation and management services and OMT.
- determine the limits of their knowledge and clinical skills and seek an appropriate referral in regard to the use of OMT or the application of osteopathic principles and practice.
- report and interpret epidemiologic data in patients with musculoskeletal dysfunction.

- integrate scientific knowledge supporting the use of osteopathic principles, practice, and OMT into the clinical evaluation and management of the patient

# Overview

Osteopathic physicians must provide osteopathic medical care that is person-centered, compassionate, safe, effective, evidence-based, timely, efficient, and equitable in order to promote health and the body's self-regulatory and self-healing nature. Osteopathic physicians must consider social determinants of health in providing these elements of effective osteopathic patient care, as appropriate to their scope of practice, to patients in all populations in varied clinical settings, including outpatient, inpatient, home care, and virtual settings, across the life cycle.

This patient care involves determining and monitoring the nature of the patient's concern or reason for presentation; appropriately incorporating osteopathic principles, practice, and OMT; and implementing effective, equitable, timely, evidence-based, and mutually agreed-upon diagnostic and patient care plans, including appropriate patient education and follow-up.

This includes performing all other diagnostic and therapeutic clinical procedures essential for the area of practice. In the delivery of the highest-quality patient care, promotion of wellness, and prevention of disease, osteopathic physicians must be able to participate as members or leaders of interprofessional health care teams and foster effective communication with and among other professionals. Interprofessional team outcomes will be mapped primarily to the systems-based practice domain (Domain 7).

**REQUIRED ELEMENT 2.1**  
DATA GATHERING

**REQUIRED ELEMENT 2.2**  
DIFFERENTIAL DIAGNOSIS

**REQUIRED ELEMENT 2.3**  
ESSENTIAL CLINICAL PROCEDURES

**REQUIRED ELEMENT 2.4**  
PATIENT CARE MANAGEMENT

**REQUIRED ELEMENT 2.5**  
PATIENT EDUCATION

**REQUIRED ELEMENT 2.1**

## DATA GATHERING

**DEFINITION**

The osteopathic physician must effectively gather accurate, essential data from all sources, including the patient, secondary sources, health care records, and physical examination (including osteopathic structural examination), regardless of an individual's unique characteristics.

**MEASURED OUTCOMES**

The osteopathic physician must:

- elicit the patient's view of the concern or reason for presentation.
- elicit the essential information that contributes to a patient's presentation, including medication and allergy histories, social history, family history, sexual history, developmental milestones, and past medical and surgical histories.
- elicit a comprehensive and person-centered history, including symptoms, psychological factors, cultural considerations, need for interpretive or adaptive services, and community/social factors, from the patient and other sources as appropriate and in a timely manner.
- determine the patient's living circumstances and the depth and scope of their support community.
- elicit essential information regarding the mechanism of injury and disease presentations and/or biomechanical influences that contribute to the patient's condition.
- adapt the gathering of information effectively to the situation and interview relevant individuals in various clinical settings, which may include patients, family members, caregivers, and other members of their support community.

- gather information regarding health promotion and disease prevention through medical history-taking and physical examination regarding the biomedical, biomechanical, and biopsychosocial issues that contribute to health and disease.
- explore the patient's beliefs, concerns, expectations, and literacy about health and disease while considering contextual factors such as their age, gender, culture, literacy, sexual orientation, spirituality, and economic background.

**REQUIRED ELEMENT 2.2**

## DIFFERENTIAL DIAGNOSIS

**DEFINITION**

The osteopathic physician must formulate a differential diagnosis based on the patient evaluation and epidemiologic data, prioritize diagnoses appropriately, and determine the nature of the concern in the context of the patient's unique circumstances and in a variety of health care settings.

**MEASURED OUTCOMES**

The osteopathic physician must:

- generate, assess, and test appropriate hypotheses while gathering information about the patient and during their physical examination.
- generate and prioritize an appropriate list of potential diagnoses given the patient's history, physical examination findings, and other available data. This process should include biomedical, biomechanical, psychosocial, and cultural factors.

**REQUIRED ELEMENT 2.3**

## ESSENTIAL CLINICAL PROCEDURES

**DEFINITION**

The osteopathic physician must perform basic clinical procedures essential for the generalist practice of osteopathic medicine while respecting and considering the diverse backgrounds, identities, and personal circumstances of all patients.

**MEASURED OUTCOMES**

The osteopathic physician must:

- perform a complete physical examination including evaluation of each of the body areas (head, neck, chest, abdomen, genitalia/groin/buttocks, back/spine, and upper and lower extremities) and organ and body systems (constitutional; cardiovascular; ears, nose, mouth, and throat; eyes; genitourinary; hematologic/lymphatic/immunologic; musculoskeletal; neurologic; psychiatric; respiratory; and skin).
- perform an osteopathic structural examination and OMT.
- employ effective hygiene practices, universal precautions, and medical aseptic technique to minimize the risk of infectious transmissions.



**REQUIRED ELEMENT 2.4**  
PATIENT CARE MANAGEMENT**DEFINITION**

The osteopathic physician must provide diagnostic information; develop a safe, evidence-based, cost-effective, equitable, person-centered care plan; and use all ethical and appropriate options for the goal of relieving physical and psychological distress. Within the context of evidence-based and cost-effective care, the osteopathic physician must assess the patient's motivation, willingness, and resources to implement and adhere to the diagnostic and therapeutic plan.

**MEASURED OUTCOMES**

The osteopathic physician must:

- use an unbiased and collaborative approach with the individual and their support community to develop a care plan that addresses their unique circumstances and maximizes adherence to the plan.
- apply an osteopathic approach to develop a care plan that may include orders, prescriptions, and OMT.
- incorporate nutrition, lifestyle, and body-mind-spirit unity into care plans based on individual circumstances and beliefs.
- identify, ethically address, and appropriately relieve suffering and distress while maintaining patient dignity and respecting the unique aspect of their circumstances and lived experiences.

**REQUIRED ELEMENT 2.5**  
PATIENT EDUCATION**DEFINITION**

The osteopathic physician must assess the patient's health literacy and understanding and must counsel and educate the patient accordingly.

**MEASURED OUTCOMES**

The osteopathic physician must:

- explain the nature of the patient's concern at a level commensurate with the patient's health literacy.
- describe diagnostic procedures, therapeutic options, and care plans at a level commensurate with the patient's health literacy.



# Overview

An osteopathic physician with a fluent knowledge base in foundational biomedical and clinical sciences must be able to explain principles of health, disease, and diagnostic and treatment options. This knowledge base includes the articulation of core scientific and clinical practice principles relevant to osteopathic medical practice (e.g., health and the body's innate capacity to heal, differential diagnoses, disease etiologies, indications and contraindications, assessment of the risks and benefits of diagnostic and therapeutic interventions).

Knowledge fluency is fundamental to a generalist osteopathic physician's competency to practice osteopathic medicine, and it is demonstrated by the ability to efficiently interpret, process, and skillfully apply principles of foundational biomedical and clinical sciences in a timely manner.

Osteopathic physicians must be able to understand and apply knowledge and principles related to diversity, equity, and inclusion. Osteopathic physicians must reject harmful misconceptions about race, gender, and other characteristics in the application of knowledge. Also important to an osteopathic physician's knowledge competency is the ability to formulate appropriate clinical questions, retrieve evidence to inform patient care, acquire additional and evolving knowledge for lifelong learning, and apply this knowledge for continuous practice improvement.

The principles that underlie the human condition, including its biologic complexity, genetic diversity, homeostatic mechanisms, structure-function interrelationships and development, and interactions of systems and environmental influences, guide the osteopathic physician in the understanding of health and the diagnosis and treatment of disease.

## REQUIRED ELEMENT 3.1

FOUNDATIONAL BIOMEDICAL SCIENCES  
KNOWLEDGE BASE

## REQUIRED ELEMENT 3.2

CLINICAL SCIENCES KNOWLEDGE BASE

## REQUIRED ELEMENT 3.3

CONTINUOUS KNOWLEDGE BASE DEVELOPMENT  
AND LIFELONG LEARNING

**REQUIRED ELEMENT 3.1**FOUNDATIONAL BIOMEDICAL SCIENCES  
KNOWLEDGE BASE**DEFINITION**

Given the various clinical presentations common and important to osteopathic medical practice and described herein, the osteopathic physician must be able to demonstrate the application of knowledge of clinically applicable foundational biomedical science concepts related to patient care and health, homeostasis, structure-function relationships, prevention, and disease, and do so in an integrated, person-centered, and osteopathic manner.

**MEASURED OUTCOMES**

The osteopathic physician must effectively apply clinically relevant foundational biomedical science knowledge related to:

- the molecular, biochemical, tissue, and cellular bases of health and disease.
- medical genetics.
- the anatomic and structural bases of health and disease.
- the physiologic and pathologic bases of health and disease.
- the microbiologic and immunologic bases of health and disease.
- pharmacologic principles and pharmacotherapeutics in health and disease.
- neurosciences.
- biopsychosocial sciences.
- epidemiology and population sciences.

**REQUIRED ELEMENT 3.2**

## CLINICAL SCIENCES KNOWLEDGE BASE

**DEFINITION**

Given the various clinical presentations common and important to osteopathic medical practice and described herein, the osteopathic physician must be able to demonstrate the application of knowledge of established and evolving clinical science concepts related to patient care and health, homeostasis, structure-function relationships, prevention, and disease, and do so in an integrated, person-centered, osteopathic manner.

**MEASURED OUTCOMES**

The osteopathic physician must effectively apply clinical science knowledge related to disciplines pertaining to the primary care-oriented focus of osteopathic medical practice, including generalist concepts from the following specialties:

- emergency and acute care medicine
- family medicine
- general internal medicine and its subspecialties (e.g., allergy/immunology, cardiology, endocrinology, gastroenterology, hematology, infectious diseases, nephrology, oncology, pulmonary medicine, rheumatology)
- preventive and occupational medicine
- neurology
- obstetrics and gynecology
- reproductive health care
- care for patients of all gender identities
- osteopathic neuromusculoskeletal medicine
- pain medicine, hospice, and palliative care
- physical medicine and rehabilitation
- pediatrics and adolescent medicine
- geriatrics

- psychiatry and behavioral medicine
- general surgery and its subspecialties (e.g., colon and rectal, neurologic, pediatric, plastic, thoracic, urologic, and vascular)
- orthopedics and sports medicine
- anesthesiology
- otorhinolaryngology and ophthalmology
- radiology
- pathology
- dermatology
- other clinical discipline areas relevant to primary care in osteopathic medicine

**REQUIRED ELEMENT 3.3**CONTINUOUS KNOWLEDGE BASE DEVELOPMENT  
AND LIFELONG LEARNING**DEFINITION**

The osteopathic physician must demonstrate the ability to acquire and sustain knowledge of applicable foundational biomedical and clinical science concepts appropriate for clinical practice for lifelong learning, including, as applicable, at the point of care.

**MEASURED OUTCOMES**

The osteopathic physician must demonstrate the ability to:

- incorporate new developments in foundational biomedical and clinical science knowledge relevant to the practice of osteopathic medicine into clinical practice.
- provide inclusive care using current evidence-based practice guidelines.

# Overview

Practice-based learning and improvement is the continuous self-evaluation of osteopathic medical practice, using evidence-based medicine approaches to develop best practices that will continuously improve patient experiences of care, reduce inefficiencies and redundancies, and result in optimal and equitable patient care outcomes.

Osteopathic physicians must assimilate and apply evidence-based medicine principles and practices, fundamental biostatistical and epidemiologic concepts, clinical decision-making skills, and methods to evaluate relevance and validity of established and evolving scientific evidence. Osteopathic physicians must also appraise the clinical significance of research evidence.

Osteopathic physicians must demonstrate the use of best medical evidence, practical strategies for integrating evidence-based principles and practices into patient care, and systematic methods relating to continuous self-evaluation of clinical practice patterns and practice-based improvements, including those that reduce medical errors, address disparities in health care, and promote health. Osteopathic physicians must set learning and quality improvement goals and must incorporate feedback and reflection into daily practice.

## REQUIRED ELEMENT 4.1

FUNDAMENTAL EPIDEMIOLOGIC CONCEPTS

## REQUIRED ELEMENT 4.2

CLINICAL DECISION-MAKING TOOLS

## REQUIRED ELEMENT 4.3

EVIDENCE-BASED MEDICINE PRINCIPLES AND PRACTICES

## REQUIRED ELEMENT 4.4

CLINICAL SIGNIFICANCE OF RESEARCH EVIDENCE AND STATISTICAL INFERENCES

## REQUIRED ELEMENT 4.5

TRANSLATING EVIDENCE INTO PRACTICE AND CONTINUOUS LEARNING

## REQUIRED ELEMENT 4.6

CONTINUOUS EVALUATION, FEEDBACK, AND REFLECTION FOR THE IMPROVEMENT OF OSTEOPATHIC CLINICAL PRACTICE

**REQUIRED ELEMENT 4.1**

## FUNDAMENTAL EPIDEMIOLOGIC CONCEPTS

**DEFINITION**

The osteopathic physician must articulate and apply fundamental epidemiologic concepts to practice-based learning and improvement.

**MEASURED OUTCOMES**

The osteopathic physician must:

- interpret features and meanings of different types of data, including quantitative and qualitative, and different types of scales (e.g., nominal, dichotomous, ordinal, continuous).
- interpret measures of central tendency, including mode, median, and mean, and measures of variability, including variance and standard deviation.
- explain and interpret measures of frequency of disease, injury, and death in forms of rate, ratio, and proportion, including incidence and prevalence.

**REQUIRED ELEMENT 4.2**

## CLINICAL DECISION-MAKING TOOLS

**DEFINITION**

The osteopathic physician must interpret literature regarding research and clinical topics for use in understanding disease- and patient-oriented evidence.

**MEASURED OUTCOMES**

The osteopathic physician must:

- conduct, interpret, and apply systematic reviews (e.g., meta-analysis) of literature regarding specific research and clinical topics with an understanding of limitations, such as design bias and sources of scientific uncertainty.

- compare and contrast disease- and patient-oriented evidence in the interpretation of literature.
- identify and apply population health data to address health care disparities.

**REQUIRED ELEMENT 4.3**

## EVIDENCE-BASED MEDICINE PRINCIPLES AND PRACTICES

**DEFINITION**

The osteopathic physician must learn and apply evidence-based osteopathic medical principles and practices.

**MEASURED OUTCOMES**

The osteopathic physician must:

- access the best-available/highest level of evidence, in order to answer a clinical question with accuracy and maximum efficiency.
- critically appraise the available evidence and its validity, impact, and applicability.
- evaluate and apply evidence in a manner that takes into consideration a patient's cultural, socioeconomic, and environmental influences and personal perspectives.

**REQUIRED ELEMENT 4.4**

## CLINICAL SIGNIFICANCE OF RESEARCH EVIDENCE AND STATISTICAL INFERENCES

**DEFINITION**

The osteopathic physician must determine the clinical significance of research evidence.

**MEASURED OUTCOMES**

The osteopathic physician must:

- judge and interpret aspects of statistical inference and hypothesis testing (e.g., decision errors, sample size, power, confidence intervals, degree of freedom, blinding, external and internal validity, number needed to treat, number needed to harm, sample size) as applied to osteopathic medical practice.
- interpret pretest/posttest probabilities in diagnostic and screening tests, as applied to osteopathic medical practice.
- identify and explain potential biases in research that could have implications on health care.

**REQUIRED ELEMENT 4.5**

## TRANSLATING EVIDENCE INTO PRACTICE AND CONTINUOUS LEARNING

**DEFINITION**

The osteopathic physician must apply evidence-based medicine to clinical practice.

**MEASURED OUTCOMES**

The osteopathic physician must:

- use information technology to optimize learning and to access and manage medical information online.
- communicate best clinical evidence, including osteopathic principles and practice, to patients and colleagues in a respectful manner.



**REQUIRED ELEMENT 4.6**CONTINUOUS EVALUATION, FEEDBACK, AND  
REFLECTION FOR THE IMPROVEMENT OF  
OSTEOPATHIC CLINICAL PRACTICE**DEFINITION**

The osteopathic physician must identify, describe, and apply systematic methods relating to continuous evaluation of personal osteopathic clinical practice patterns, practice-based improvements, and the reduction of medical errors. The osteopathic physician must do so using information about individual patients, populations of patients, or communities to improve care.

**MEASURED OUTCOMES**

The osteopathic physician must:

- describe the nature, function, and utilization of strategies in quality improvement and health failure modes and effects analysis.
- incorporate regular feedback and reflection into practice, as well as set learning and improvement goals that promote health equity and cultural competency.

# Overview

Osteopathic physicians must demonstrate the knowledge, skills, experience, attitudes, values, and behaviors that facilitate accurate and efficient information gathering, empathetic rapport building, and effective information giving in interactions with the patient, their support community, and other members of the interprofessional collaborative team.

Osteopathic physicians must also demonstrate the ability to effectively document and synthesize clinical findings, diagnostic impressions, and diagnostic and treatment instructions in verbal, written, and electronic format.

Osteopathic physicians must incorporate appropriate accommodations, including interpretation and translation services, when non-shared language barriers exist. Interpersonal and communication skills for osteopathic medical practice are based on the incorporation of inclusive, unbiased, and culturally sensitive knowledge. These skills must be used to determine the nature of the patient's concern, to develop, maintain, and conclude the therapeutic relationship, and to facilitate patient education, shared decision-making, and implementation of diagnostic and care plans.

Effective communication skills include active listening involving verbal and nonverbal behaviors. It is essential for osteopathic medical practice that the approach be person-centered, holistic, comprehensive, compassionate, and respectful of the unique characteristics and lived experiences of the individual.

**REQUIRED ELEMENT 5.1**  
ELICITING INFORMATION

**REQUIRED ELEMENT 5.2**  
RAPPORT BUILDING

**REQUIRED ELEMENT 5.3**  
INFORMATION GIVING

**REQUIRED ELEMENT 5.4**  
WRITTEN AND/OR ELECTRONIC DOCUMENTATION  
AND COMMUNICATION

**REQUIRED ELEMENT 5.1**

## ELICITING INFORMATION

**DEFINITION**

The osteopathic physician must communicate effectively with the patient and their support community in an inclusive and culturally sensitive manner in order to establish a diagnostic impression and to help ascertain the nature of the concern or reason for presentation. The osteopathic physician must begin interviews by encouraging full expression of concerns and must gather information in an unbiased manner that results in effective exchange of information and collaboration with other individuals, including patients, their support community, and members of their interprofessional team.

**MEASURED OUTCOMES**

The osteopathic physician must:

- allow patients (or other persons being interviewed) to complete their opening statements without interruption in order to elicit the full set of patient concerns.
- use open-ended and closed-ended questions effectively.
- listen actively, using appropriate verbal and nonverbal techniques, including appropriate eye contact and touch.
- use accommodations as necessary to communicate with patients and to minimize potential language or other barriers to effective information exchange.

**REQUIRED ELEMENT 5.2**

## RAPPORT BUILDING

**DEFINITION**

The osteopathic physician must develop, maintain, and conclude the therapeutic relationship and demonstrate competence in the rapport-building functions of the interview while respecting individual characteristics and lived experiences.

**MEASURED OUTCOMES**

The osteopathic physician must:

- communicate interest in, respect for, support of, and empathy for the patient.
- understand all relevant individuals' perspectives and concerns.
- provide closure to interviews by summarizing and affirming agreements, asking whether there are remaining concerns, and planning follow-up as necessary (e.g., next visit and awareness of unexpected outcomes).
- communicate effectively with patients in all emotional states in a nonjudgmental manner and resolve relational barriers between the physician, other health care professionals, and the patient.
- communicate effectively and encourage open communication with the patient as appropriate during clinical procedures, including OMT.
- clarify their role in the patient's care and/or on the health care team with the patient and their support community.

**REQUIRED ELEMENT 5.3**

## INFORMATION GIVING

**DEFINITION**

The osteopathic physician must effectively provide patient education and information, ensuring understanding of their condition and the diagnostic and/or treatment options and recommendations. This includes achieving consensus between the patient and their support community and the physician. It also includes facilitating the informed consent process and recommending mutually agreed-upon diagnostic and/or therapeutic steps or health promotion and disease prevention strategies. Additionally, it includes enhancing coping mechanisms and encouraging appropriate lifestyle changes to avoid illness and to promote and maintain health.

**MEASURED OUTCOMES**

The osteopathic physician must:

- share information using inclusive and culturally sensitive terminology and concepts.
- summarize discussions, check for understanding, and conclude conversations by ensuring that all questions and concerns have been thoroughly addressed.
- encourage active patient participation in decision-making while verifying the patient and their support community willingness, motivation, and means to follow the care plan as part of informed consent.
- communicate the philosophy of osteopathic principles and practice and of OMT.
- communicate with compassion any news that may evoke distress, sorrow, anger, or other emotion, such as any applicable information relative to terminal illness, disability, death, and dying.
- enhance coping skills by exploring the social and psychological consequences of the condition and the treatment.



- effectively communicate directions for next steps related to diagnostic and treatment care plans.
- recommend and explain appropriate disease prevention and health promotion strategies, including lifestyle changes and available community support services.

**REQUIRED ELEMENT 5.4****WRITTEN AND/OR ELECTRONIC DOCUMENTATION  
AND COMMUNICATION****DEFINITION**

The osteopathic physician must demonstrate effective written and electronic communication in patient care and in working as a member of the interprofessional collaborative team.

**MEASURED OUTCOMES**

The osteopathic physician must:

- document subjective elements (e.g., information provided by the patient or a secondary source) of the medical, surgical, family, medication, allergy, social, cultural, and sexual histories and review of systems, as appropriate.
- document objective patient information (e.g., physical examination findings, laboratory/diagnostic test results, imaging results) as appropriate.
- document a reasonable diagnostic assessment or differential diagnosis as supported by diagnostic hypotheses, as well as subjective and objective findings and data as appropriate.
- document elements of the patient care and follow-up or disposition plan, as appropriate.



# Overview

Osteopathic physicians must understand and adhere to the ethical, behavioral, and social science principles that underpin medical professionalism, demonstrating accountability to patients, society, and the profession. Osteopathic physicians must consistently display high moral and ethical standards in the conduct of medical education, training, research, and practice. This conduct includes properly establishing, maintaining, and concluding the physician-patient relationship in a manner that is altruistic, compassionate, and conscientious.

Osteopathic physicians must exemplify integrity, humanistic behavior, and a responsiveness to the needs of patients that supersedes self-interest. They must show respect for the patient as a person and demonstrate cultural sensitivity and responsiveness to a diverse patient population. While professionalism also includes a commitment to excellence and continuous professional development, these attributes are classified in the practice-based learning and improvement domain (Domain 4).

**REQUIRED ELEMENT 6.1**

KNOWLEDGE OF ETHICS AND PROFESSIONALISM

**REQUIRED ELEMENT 6.2**

HUMANISTIC BEHAVIOR

**REQUIRED ELEMENT 6.3**

PRIMACY OF PATIENT NEED

**REQUIRED ELEMENT 6.4**ACCOUNTABILITY AND DUTY IN THE PHYSICIAN-  
PATIENT RELATIONSHIP**REQUIRED ELEMENT 6.5**

CULTURAL COMPETENCY

**REQUIRED ELEMENT 6.8**ETHICAL PRINCIPLES IN PRACTICE AND  
RESEARCH

**REQUIRED ELEMENT 6.1**

## KNOWLEDGE OF ETHICS AND PROFESSIONALISM

**DEFINITION**

The osteopathic physician must demonstrate sufficient knowledge and awareness of the diverse behavioral and social sciences that provide the foundation for the professionalism competency, including medical ethics and social accountability and responsibility. The osteopathic physician should be aware of human diversity and be appropriately responsive.

**MEASURED OUTCOMES**

The osteopathic physician must:

- articulate moral, legal, and ethical guidelines for professional behaviors, and apply them equitably.
- explain and apply the ethical principles of autonomy, beneficence, nonmaleficence, fidelity, justice, and utility.
- identify the patient's social and economic situation, capacity for self-care, and ability to participate in shared decision-making.
- identify and describe the impact of social inequalities in health care, including public health crises, and the social factors that are determinants of health outcomes.
- understand reasons for inequitable health outcomes, including structural bias, health disparities, and systemic factors.
- comprehend and apply the concepts of social accountability and responsibility.

**REQUIRED ELEMENT 6.2**

## HUMANISTIC BEHAVIOR

**DEFINITION**

The osteopathic physician must demonstrate respect, altruism, compassion, integrity, honesty, and trustworthiness toward patients of all backgrounds, cultures, and identities.

**MEASURED OUTCOMES**

The osteopathic physician must:

- exhibit respect and compassion for the patient's autonomy, dignity, and privacy.
- exhibit openness, honesty, and trustworthiness with patients and their families in the completion of all reports and during the provision of evidence in any formal inquiries, including those related to litigation.
- uphold and advocate for equitable and inclusive values in all aspects of health care.

**REQUIRED ELEMENT 6.3**

## PRIMACY OF PATIENT NEED

**DEFINITION**

The osteopathic physician must demonstrate responsiveness to the unique needs of diverse patients and populations that supersedes self-interest. The osteopathic physician must recognize the disparities present within various communities.

**MEASURED OUTCOMES**

The osteopathic physician must:

- use reason and appropriate judgment, incorporating the patient's perspective and considering the impact of the patient's socioeconomic stability, culture, and individual circumstances.

- respect patient autonomy and the right of the patient to be fully involved in decisions about care.
- respect the right of the patient to personal privacy and dignity during evaluation and management by providing care that is inclusive of all aspects of the patient's identity.

**REQUIRED ELEMENT 6.4**

## ACCOUNTABILITY AND DUTY IN THE PHYSICIAN-PATIENT RELATIONSHIP

**DEFINITION**

The osteopathic physician must properly establish, maintain, and conclude the physician-patient relationship in accordance with ethical and legal standards. The osteopathic physician must be answerable for all actions and their consequences, including effects on patients, the public, and the profession.

**MEASURED OUTCOMES**

The osteopathic physician must:

- take appropriate action to protect patients from risk if the physician has good reason to believe that they or a colleague may not be fit to practice or when unprofessional behavior compromises patient care or represents a threat to patients or others (e.g., impairment, substance use, incompetence, unethical conduct, inappropriate relationships, discriminatory practices).
- adhere to proper ethical and legal standards in the establishment and maintenance of the physician-patient relationship by examining, diagnosing, and treating patients in a consensual manner.
- promote shared decision-making and provide care that is accessible, inclusive, and equitable, recognizing the patient's life experiences, background, and identity.



**REQUIRED ELEMENT 6.5**

## CULTURAL COMPETENCY

**DEFINITION**

The osteopathic physician must demonstrate sensitivity, respect, and responsiveness to all patients with respect to culture, religion, age, gender, sexual orientation, socioeconomic circumstances, and mental and physical abilities.

**MEASURED OUTCOMES**

The osteopathic physician must:

- demonstrate cultural awareness, respect, and responsiveness when communicating with the patient, their support community, and other members of the health care team.
- discuss cultural issues openly and be responsive to culturally based cues, interpreting the implications of symptoms as they are expressed by patients from diverse cultures and circumstances.

**REQUIRED ELEMENT 6.8**ETHICAL PRINCIPLES IN PRACTICE AND  
RESEARCH**DEFINITION**

The osteopathic physician must demonstrate knowledge and application of ethical and equitable principles relevant to osteopathic medical practice and research, particularly in the areas of confidentiality of patient information, access to care, regulation of care, provision or withholding of care, and the conduct of research.

**MEASURED OUTCOMES**

The osteopathic physician must:

- provide appropriate care to address physical, emotional, and spiritual needs and to minimize needless helplessness or suffering.
- use ethical principles pertaining to provision or withholding of clinical care, including diagnostic and treatment modalities that are considered futile.

# Overview

Osteopathic physicians must understand the larger context and systems of health care and the broader system of linked goals. They must effectively identify and utilize system resources to maximize the health of the individual and the community or population at large, taking into consideration marginalized or underserved individuals. This facilitates improving the individual experience of care, improving the health of populations, and reducing the per capita costs of care.

Osteopathic physicians must work well as members and leaders of interprofessional health care teams, identifying areas for improvement to promote care and a culture that enhances quality and patient safety, as well as reduces medical errors, inequities, needless pain and suffering, helplessness, and waste and other inefficiencies.

**REQUIRED ELEMENT 7.1**  
HEALTH SYSTEMS AWARENESS

**REQUIRED ELEMENT 7.2**  
ENGAGE IN AN INTERPROFESSIONAL HEALTH  
CARE TEAM FOR OPTIMAL PATIENT- AND  
POPULATION-CENTERED CARE

**REQUIRED ELEMENT 7.3**  
INCORPORATE CONSIDERATIONS OF  
COST AWARENESS AND RISK-BENEFIT  
ANALYSIS IN CARE

**REQUIRED ELEMENT 7.4**  
ADVOCATE FOR ALL PATIENTS WITHIN THE HEALTH  
CARE SYSTEM

**REQUIRED ELEMENT 7.5**  
IMPROVE HEALTH SYSTEMS AND PATIENT SAFETY

**REQUIRED ELEMENT 7.1**

## HEALTH SYSTEMS AWARENESS

**DEFINITION**

The osteopathic physician must understand in-person and virtual health care delivery systems, including but not limited to: Medicare, Medicaid, managed care, the Veterans Health Administration, formularies, accountable care organizations, and patient-centered medical homes, all of which affect the practice of osteopathic physicians and the care of patients and the community.

**MEASURED OUTCOMES**

The osteopathic physician must:

- know the various types of medical practices and national health care delivery systems, including types of third-party coverage and methods of payment and how these systems and practices impact different patient populations.
- understand the impact of health care delivery systems on patient care at the national level, including the potential for these systems to influence disparities in health care.
- identify global issues affecting the health of patients and communities.

**REQUIRED ELEMENT 7.2**ENGAGE IN AN INTERPROFESSIONAL HEALTH  
CARE TEAM FOR OPTIMAL PATIENT- AND  
POPULATION-CENTERED CARE**DEFINITION**

The osteopathic physician must understand the function of the interprofessional health care team and their role in the team and optimize team performance across the health care system for safe, quality patient- and population-centered care.

**MEASURED OUTCOMES**

The osteopathic physician must:

- identify and define the roles of trainees (i.e., medical students and residents) and other health care professionals as members of the interprofessional collaborative team.
- collaborate with team members of varied personal and professional backgrounds.
- promote an inclusive environment, where all perspectives are valued, to optimize patient care.
- obtain consultations and provide referrals for patients judiciously.

**REQUIRED ELEMENT 7.3**INCORPORATE CONSIDERATIONS OF COST  
AWARENESS AND RISK-BENEFIT ANALYSIS IN CARE**DEFINITION**

The osteopathic physician must consider how to allocate resources (by evaluating value, quality, cost, risk-benefit analysis, equitable distribution, and potential wastes) in patient care and the health care system.

**MEASURED OUTCOMES**

The osteopathic physician must:

- incorporate considerations of cost awareness, risk-benefit analysis, and perception of value in patient- and/or population-based care.
- make cost-effective decisions in the provision of optimal patient care (e.g., request consultations effectively, use diagnostic tests judiciously, participate in effective transitions of care) involving health care and resource allocation.

**REQUIRED ELEMENT 7.4**ADVOCATE FOR ALL PATIENTS WITHIN THE HEALTH  
CARE SYSTEM**DEFINITION**

The osteopathic physician must be an advocate for all patients within the health care system.

**MEASURED OUTCOMES**

The osteopathic physician must:

- recognize and work to reduce logistical and systems-based barriers to patient care.
- support equity in health care to reduce health disparities.
- maintain high-quality, inclusive care for all patients.

**REQUIRED ELEMENT 7.5**

## IMPROVE HEALTH SYSTEMS AND PATIENT SAFETY

**DEFINITION**

The osteopathic physician must understand, advocate for, and apply methods for the evaluation and improvement of patient care systems, with the goal of improving patient safety and quality of care.

**MEASURED OUTCOMES**

The osteopathic physician must:

- identify and use known effective methods for recognizing health system errors, implementing potential system solutions, and improving patient safety and systems of care (e.g., error reporting, root cause analysis, training to improve effective transitions of care, best practices for safe prescribing, infection control, disease reporting, disaster management).

CLINICAL PRESENTATIONS represent the manner in which a particular patient, group of patients, or community presents to osteopathic physicians. The emphasis within each clinical presentation is on high-frequency and high-impact categories based on evidence from osteopathic medical practice.

Clinical presentations detail the reasons patients present to osteopathic physicians and reflect patients of all ages and gender identities and from diverse backgrounds, cultures, and abilities, in varied clinical settings.

Clinical Presentation 1 also includes topics related to patient safety, health care systems, medical ethics and jurisprudence, and public health and their impact on both patient and community health and wellness.

## SECTION INTRODUCTIONS

Every clinical presentation has the same introduction:

“Patient presentations span all ages and gender identities, reflecting patients from diverse backgrounds, cultures, and abilities and their reasons for presenting to osteopathic physicians in varied clinical settings.”

**1. Community Health and Patient Presentations Related to Wellness**

**2. Human Development, Reproduction, and Sexuality**

**3. Endocrine System and Metabolism**

**4. Nervous System and Mental Health**

**5. Musculoskeletal System**

**6. Genitourinary/Renal System and Breasts**

**7. Gastrointestinal System and Nutritional Health**

**8. Circulatory and Hematologic Systems**

**9. Respiratory System**

**10. Integumentary System**

Patient presentations span all ages and gender identities, reflecting patients from diverse backgrounds, cultures, and abilities and their reasons for presenting to osteopathic physicians in varied clinical settings. This clinical presentation focuses on topics related to patient safety, health care systems, medical ethics and jurisprudence, and public health and their impact on both patient and community health and wellness.

<b>1.1</b>	<b>END-OF-LIFE/PALLIATIVE CARE</b>
<b>1.2</b>	<b>PATIENT SAFETY</b>
<b>1.3</b>	<b>PUBLIC HEALTH</b>
<b>1.4</b>	<b>RISK ASSESSMENT</b>
<b>1.5</b>	<b>HEALTH PROMOTION AND DISEASE PREVENTION</b>
<b>1.6</b>	<b>HEALTH INFORMATICS AND BIostatISTICS</b>
<b>1.7</b>	<b>LABORATORY AND DIAGNOSTIC TESTING RELATED TO COMMUNITY HEALTH AND WELLNESS</b>

Clinical presentations in this category may include, but are not limited to, the following conditions or situations prompting patients to present for osteopathic medical care:

<b>Anticipatory guidance for infants and children</b>	dental care • feeding • preconception and prenatal counseling • sudden infant death syndrome • toilet training
<b>End of life</b>	advance directives • medical futility • palliative care • surrogate decision-making
<b>Disease screening</b>	cancer • cardiovascular disorders • screening programs • sexually transmitted infections
<b>Environmental issues</b>	heavy-metal poisoning • outbreaks/pandemics/epidemics • secondhand smoke
<b>Data application to health care</b>	artificial/augmented intelligence • biostatistics • business of medicine • documentation • epidemiology • research • study design elements
<b>Health care delivery</b>	advocacy and policy • medication safety • pre- and postprocedure counseling • pre- and postoperative care • transitions of care • value-based care
<b>Modifiable risk factors</b>	chronic stress • physical inactivity • poor diet • poor sleep habits • smoking • substance use disorder
<b>Community safety</b>	child, intimate partner, and elder abuse • fall prevention • gun safety • motor vehicle operation safety • protective device use • sexual assault • vaccinations
<b>Wellness examinations</b>	adult • child • neonatal • travel



Patient presentations span all ages and gender identities, reflecting patients from diverse backgrounds, cultures, and abilities and their reasons for presenting to osteopathic physicians in varied clinical settings. This clinical presentation may include items testing the application of research, professionalism, and systems-based practice involving this body system.

<b>2.1</b>	<b>SEXUAL DEVELOPMENT AND MATURATION, INCLUDING VARIATIONS IN SEXUAL DEVELOPMENT AND GENDER IDENTITY</b>
<b>2.2</b>	<b>AGING MILESTONES</b>
<b>2.3</b>	<b>DEVELOPMENTAL DELAY</b>
<b>2.4</b>	<b>CONGENITAL ANOMALIES, MALFORMATIONS, PRIMARY AND ACQUIRED IMMUNODEFICIENCY DISORDERS</b>
<b>2.5</b>	<b>FAILURE TO THRIVE</b>
<b>2.6</b>	<b>INFERTILITY</b>
<b>2.7</b>	<b>PREGNANCY PREVENTION AND CONTRACEPTION</b>
<b>2.8</b>	<b>OBSTETRICS, INCLUDING LABOR AND DELIVERY</b>
<b>2.9</b>	<b>COMPLICATIONS DURING PREGNANCY AND THE POSTPARTUM PERIOD</b>
<b>2.10</b>	<b>PREGNANCY LOSS</b>
<b>2.11</b>	<b>NEONATAL CONDITIONS</b>
<b>2.12</b>	<b>IMPAIRMENT OF SEXUAL FUNCTION</b>
<b>2.13</b>	<b>PHYSICAL EXAM FINDINGS RELATED TO HUMAN DEVELOPMENT, REPRODUCTION, AND SEXUALITY</b>
<b>2.14</b>	<b>LABORATORY AND DIAGNOSTIC TESTING RELATED TO HUMAN DEVELOPMENT, REPRODUCTION, AND SEXUALITY</b>

Clinical presentations in this category may include, but are not limited to, the following conditions or situations prompting patients to present for osteopathic medical care:

<b>Abortion and pregnancy loss</b>	complete • elective • incomplete • inevitable • missed • recurrent • spontaneous • therapeutic • threatened	<b>Maternal, fetal, and neonatal infections</b>	fetal and neonatal (antepartum, intrapartum, postpartum) • maternal bacterial (gonococcal, streptococcal) • maternal viral (TORCH) • neonatal sepsis
<b>Antepartum care</b>	calorie consumption • dermatologic changes • multiple gestation • physiologic changes of pregnancy • preconception counseling	<b>Labor and delivery</b>	bloody show • labor induction • preterm labor • rupture of membranes • stages of labor • uterine rupture
<b>Congenital/genetic neonatal anomalies or malformations</b>	androgen insensitivity • branchial cyst • congenital adrenal hyperplasia • congenital hypogonadism • craniosynostosis • Down syndrome • Klinefelter syndrome • laryngomalacia • pyloric stenosis • thyroglossal duct cyst • Turner syndrome • virilization • Wilson disease	<b>Medical complications during pregnancy</b>	appendicitis • cholecystitis • diabetes • hypertension • hypoglycemia • hypothyroidism • pyelonephritis • substance misuse
<b>Congenital neonatal immunodeficiencies</b>	ataxia-telangiectasia • chronic granulomatous disease • DiGeorge syndrome • hyper IgM syndrome • severe combined immunodeficiency • Wiskott-Aldrich syndrome • X-linked agammaglobulinemia	<b>Neonatal integumentary conditions</b>	erythema toxicum • milia • seborrheic dermatitis • vascular birthmark
<b>Contraception</b>	abstinence and fertility awareness • barrier methods • implantable • injectable • oral • surgical (tubal ligation, vasectomy) • vaginal rings	<b>Placental abnormalities</b>	abruptio placentae • gestational trophoblastic disease • hydatidiform mole • placenta accreta • placenta marginatum • placenta previa • placental insufficiency
<b>Developmental milestones</b>	<b>by domain:</b> cognitive • language/communication • physical (gross/fine motor) • social/emotional <b>by life stage:</b> infant • child • adolescent • adult • geriatric	<b>Postpartum care</b>	lactation • postpartum depression • postpartum hemorrhage • postpartum psychosis
<b>Fertility assistance</b>	embryo harvesting, storage, and implantation • infertility evaluation • in vitro fertilization	<b>Pregnancy complications</b>	cervical insufficiency • eclampsia • ectopic pregnancy • HELLP syndrome • hyperemesis gravidarum • oligohydramnios • polyhydramnios • preeclampsia
<b>Fetal growth abnormalities</b>	intrauterine growth restriction • large for gestational age • small for gestational age	<b>Preterm infant complications</b>	necrotizing enterocolitis • patent ductus arteriosus • retinopathy of prematurity
<b>Gender in reproduction</b>	differences of sexual development • gender-affirming care • reproductive health care for transgender patients	<b>Reproductive and sexual maturity milestones</b>	menarche • menopause • perimenopause • puberty
<b>Hemolytic disease of the newborn</b>	ABO incompatibility • Rh isoimmunization	<b>Sexual dysfunction</b>	dyspareunia • erectile dysfunction • priapism • reduced/absent desire, arousal, or orgasm • vaginismus
		<b>Transient neonatal conditions</b>	birth injury • colic • glycogen storage disorders • hydrocele • hyperbilirubinemia • hypotonic infant • meconium ileus • respiratory distress of the newborn (meconium aspiration, tachypnea) • transient hypogonadism

CONSTITUTIONAL SIGNS  
AND SYMPTOMS

anorexia  
chills  
fatigue  
fever  
generalized weakness  
jaundice  
malaise  
night sweats  
unintentional weight loss

PHYSICAL EXAMINATION  
FINDINGS AND EVALUATIONS

Apgar scoring  
bimanual ovarian and uterine palpation  
cervical examination in labor  
Chapman reflex  
external genitalia inspection and palpation  
fetal status indicators  
gynecologic speculum examination  
Leopold maneuvers  
pallor  
symphysis fundal height  
sexual maturity rating (Tanner stage)  
tender points  
viscerosomatic/somatovisceral reflexes

LABORATORY AND  
DIAGNOSTIC TESTING

amniocentesis  
 $\beta$ -HCG level  
bilirubin levels  
biophysical profile  
blood gas analysis  
bone age measurement  
bone density studies  
cervical culture and sensitivity  
colposcopy  
CT scanning  
endometrial biopsy  
fetal heart rate tracing  
genetic screening  
glucose tolerance testing  
Gram staining  
hemoglobin electrophoresis  
karyotyping  
lactic acid level  
lumbar puncture  
MRI  
newborn screening testing  
prenatal laboratory panel  
prolactin level  
radiography  
semen analysis  
sex hormone levels  
tocography  
ultrasonography

Patient presentations span all ages and gender identities, reflecting patients from diverse backgrounds, cultures, and abilities and their reasons for presenting to osteopathic physicians in varied clinical settings. This clinical presentation may include items testing the application of research, professionalism, and systems-based practice involving this body system.

**3.1 VARIATIONS OF WEIGHT AND STATURE****3.2 ENDOCRINE AND NECK MASSES****3.3 HYPOTHERMIA AND HYPERTHERMIA****3.4 POLYURIA, POLYDIPSIA, POLYPHAGIA; DIABETES****3.5 PHYSICAL EXAM FINDINGS RELATED TO THE ENDOCRINE AND NEUROENDOCRINE SYSTEMS AND METABOLISM****3.6 LABORATORY AND DIAGNOSTIC TESTING RELATED TO THE ENDOCRINE AND NEUROENDOCRINE SYSTEMS AND METABOLISM**

Clinical presentations in this category may include, but are not limited to, the following conditions or situations prompting patients to present for osteopathic medical care:

<b>Adrenal masses</b>	adrenal cortex tumor • hyperaldosteronism • neuroblastoma	<b>Parathyroid disorders</b>	hyperparathyroidism • hypoparathyroidism • parathyroid cancer
<b>Amino acid metabolism disorders</b>	homocystinuria • maple syrup urine disease • phenylketonuria • tyrosinemia • urea cycle disorders	<b>Salivary gland disorders</b>	sialadenitis • salivary gland neoplasms
<b>Autoimmune endocrine disorders</b>	Addison disease • Cushing syndrome • Graves disease • Hashimoto thyroiditis • type 1 diabetes (including hyperosmolar hyperglycemic state, ketoacidosis, neuropathy, retinopathy)	<b>Stature-based abnormalities</b>	gigantism • short stature
<b>Carbohydrate metabolism disorders</b>	galactosemia • glycogen storage diseases • hereditary fructose intolerance	<b>Temperature regulation</b>	fever in immunocompromised patients • fever of undetermined etiology • heat exhaustion • heat stroke • hypothermia from environmental exposure
<b>Cardiometabolic disorders</b>	hyperinsulinemia • metabolic syndrome • type 2 diabetes	<b>Testicular disorders</b>	5- $\alpha$ reductase deficiency • hypogonadism
<b>Hereditary cancer syndromes</b>	familial adenomatous polyposis • Li-Fraumeni syndrome • Lynch syndrome • multiple endocrine neoplasia • von Hippel-Lindau disease	<b>Thyroid disorders</b>	hyperthyroidism (including thyrotoxic crisis) • hypothyroidism (including myxedema crisis) • medullary carcinoma • papillary carcinoma • thyroid adenoma • thyroid cancer • thyroid nodule • thyroiditis • thyromegaly
<b>Hypothalamic pituitary disorders</b>	craniopharyngioma • diabetes insipidus • hypopituitarism • pituitary tumor • prolactinoma • syndrome of inappropriate antidiuretic hormone secretion	<b>Weight variations</b>	excessive weight gain • obesity
<b>Inborn errors of metabolism</b>	Gaucher disease • mitochondrial disorders • Niemann-Pick disease • Tay-Sachs disease		
<b>Lipid metabolism disorders</b>	dyslipidemia • familial hypercholesterolemia • hyperlipidemia		
<b>Neuroendocrine tumors</b>	carcinoid syndrome • carcinoid tumors • medullary thyroid cancer • pheochromocytoma		
<b>Nutritional disorders</b>	kwashiorkor • protein-calorie malnutrition • vitamin deficiency		
<b>Ovarian dysfunction</b>	polycystic ovary syndrome • primary ovarian failure		
<b>Pancreatic disorders</b>	hypoglycemia • Zollinger-Ellison syndrome		

CONSTITUTIONAL SIGNS  
AND SYMPTOMS

anorexia  
chills  
fatigue  
fever  
generalized weakness  
jaundice  
malaise  
night sweats  
unintentional weight loss

PHYSICAL EXAMINATION  
FINDINGS AND EVALUATIONS

acanthosis nigricans  
acromegaly  
adipose distribution  
Chvostek sign  
exophthalmos  
galactorrhea  
gynecomastia  
hirsutism  
hyper/hyporeflexia  
lid lag  
lymphadenopathy  
macroglossia  
pallor  
peripheral neuropathy findings  
retinopathy  
striae  
tender points  
thyromegaly  
tremors  
Trousseau sign  
viscerosomatic/somatovisceral reflexes

LABORATORY AND  
DIAGNOSTIC TESTING

autoantibody testing  
CT scanning  
DXA scanning  
electrolyte levels  
fine-needle aspiration  
glucose testing  
hemoglobin A1c testing  
hormone assays  
monofilament testing  
MRI  
nuclear medicine imaging  
radiography  
ultrasonography  
urine testing

Patient presentations span all ages and gender identities, reflecting patients from diverse backgrounds, cultures, and abilities and their reasons for presenting to osteopathic physicians in varied clinical settings. This clinical presentation may include items testing the application of research, professionalism, and systems-based practice involving this body system.

<b>4.1</b>	<b>ANXIETY</b>
<b>4.2</b>	<b>DISTURBANCES OF MOOD/DEPRESSIVE DISORDERS</b>
<b>4.3</b>	<b>COGNITIVE DISTURBANCES</b>
<b>4.4</b>	<b>DISTURBANCES OF BEHAVIOR AND PERCEPTION</b>
<b>4.5</b>	<b>LIFE ADJUSTMENT AND STRESSORS</b>
<b>4.6</b>	<b>DISTURBANCES OF THE SPECIAL SENSES</b>
<b>4.7</b>	<b>HEADACHE</b>
<b>4.8</b>	<b>SPEECH AND LANGUAGE DISTURBANCES</b>
<b>4.9</b>	<b>MOVEMENT DISTURBANCES</b>
<b>4.10</b>	<b>SEIZURES</b>
<b>4.11</b>	<b>SENSORY DISTURBANCES AND PAIN</b>
<b>4.12</b>	<b>SLEEP DISTURBANCES</b>
<b>4.13</b>	<b>SUBSTANCE USE DISORDERS</b>
<b>4.14</b>	<b>NERVOUS SYSTEM TRAUMA</b>
<b>4.15</b>	<b>WEAKNESS AND PARALYSIS</b>
<b>4.16</b>	<b>PHYSICAL EXAM FINDINGS RELATED TO THE NERVOUS SYSTEM AND MENTAL HEALTH</b>
<b>4.17</b>	<b>LABORATORY AND DIAGNOSTIC TESTING RELATED TO THE NERVOUS SYSTEM AND MENTAL HEALTH</b>

Clinical presentations in this category may include, but are not limited to, the following conditions or situations prompting patients to present for osteopathic medical care:

<b>Anxiety disorders</b>	agoraphobia • breath-holding spells • generalized anxiety disorder • illness anxiety disorder • panic disorder • separation anxiety disorder • social anxiety disorder • specific phobia	<b>Entrapment neuropathies</b>	anterior interosseous syndrome • carpal tunnel syndrome • cubital tunnel syndrome • meralgia paresthetica • pronator teres syndrome • radiculopathy • tarsal tunnel syndrome • thoracic outlet syndrome
<b>Autoimmune disorders</b>	Guillain-Barré syndrome • multiple sclerosis • myasthenia gravis	<b>Eye and vision disorders</b>	blepharitis • cataracts • corneal abrasion • floaters • glaucoma • iritis • nystagmus • orbital floor fracture • refractive error • strabismus • subconjunctival hemorrhage • uveitis
<b>Bipolar and related disorders</b>	bipolar I disorder • bipolar II disorder • cyclothymic disorder	<b>Facial/cranial nerve dysfunction</b>	Bell palsy • Ramsay Hunt syndrome
<b>Brain tumors</b>	astrocytoma • ependymoma • medulloblastoma • meningioma • oligodendroglioma • schwannoma	<b>Feeding and eating disorders</b>	anorexia nervosa • binge-eating disorder • bulimia • pica
<b>Cerebrovascular disorders</b>	amaurosis fugax • stroke • transient ischemic attack	<b>Gender dysphoria</b>	in children • in adolescents • in adults • nonbinary
<b>Consciousness disorders</b>	coma • delirium • locked-in syndrome • somnolence	<b>Head and spinal cord injuries</b>	brain concussion • diffuse axonal injury • epidural hematoma • mild traumatic brain injury • spinal cord injury • subarachnoid hemorrhage • subdural hemorrhage • traumatic brain injury
<b>Depressive disorders</b>	disruptive mood dysregulation disorder • major depressive disorder • persistent depressive disorder • premenstrual dysphoric disorder • suicidal ideation	<b>Headache syndromes</b>	cluster headache • migraine • tension-type headache
<b>Disruptive, impulse-control, and conduct disorders</b>	conduct disorder • intermittent explosive disorder • oppositional defiant disorder	<b>Movement disorders</b>	ballism • chorea • dystonia • essential tremor • myoclonus • restless legs syndrome • Tourette syndrome
<b>Dissociative disorders</b>	amnesia • depersonalization/derealization disorder • dissociative identity disorder	<b>Nervous system infections</b>	encephalitis • Lyme disease • meningitis • toxoplasmosis
<b>Ear and auditory disorders</b>	acoustic neuroma • benign paroxysmal positional vertigo • cerumen impaction • eustachian tube dysfunction • hearing loss • labyrinthitis • Ménière disease • neoplasms • otosclerosis • tinnitus • tympanic membrane perforation	<b>Neurodegenerative disorders</b>	amyotrophic lateral sclerosis • Creutzfeldt-Jakob disease • dementia (Alzheimer disease, frontotemporal dementia, Lewy body dementia, mild cognitive impairment, vascular neurocognitive disorder) • Horner syndrome • Huntington disease • multiple system atrophy • normal pressure hydrocephalus • Parkinson disease
<b>Elimination disorders</b>	encopresis • enuresis		
<b>Encephalopathies</b>	chronic traumatic encephalopathy • Reye syndrome • Wernicke-Korsakoff encephalopathy		





<b>Neurodevelopmental disorders</b>	attention deficit hyperactivity disorder • autism spectrum disorder • cerebral palsy • intellectual disabilities • selective mutism • specific learning disorders
<b>Neuropathic pain disorders</b>	complex regional pain syndrome • postherpetic neuralgia • trigeminal neuralgia
<b>Obsessive-compulsive disorders</b>	body dysmorphic disorder • excoriation disorder • hoarding • obsessive-compulsive disorder • trichotillomania
<b>Personality disorders</b>	antisocial • avoidant • borderline • dependent • histrionic • narcissistic • obsessive-compulsive • paranoid • schizoid • schizotypal
<b>Schizophrenia spectrum</b>	brief psychotic disorder • catatonia • delusional disorder • schizoaffective disorder • schizophrenia • schizophreniform disorder
<b>Seizure disorders</b>	absence seizures • epilepsy • febrile seizures
<b>Sleep disorders</b>	circadian rhythm sleep disorders • hypersomnolence • insomnia • narcolepsy • night terrors • obstructive sleep apnea • parasomnias • somnambulism
<b>Somatic symptoms and related disorders</b>	conversion disorder • factitious disorder • illness anxiety disorder • malingering • somatic symptom disorder
<b>Spinal cord disorders</b>	anterior cord syndrome • cauda equina syndrome • syringomyelia
<b>Substance-related and addictive disorders</b>	alcohol (including withdrawal) • caffeine • cannabis • gambling • hallucinogens • inhalants • opioids • sedatives • stimulants • tobacco
<b>Trauma and stressor-related disorders</b>	acute stress disorder • adjustment disorder • grief reaction • posttraumatic stress disorder • reactive attachment disorder
<b>Voice disorders</b>	traumatic dysphonia • vocal cord paralysis

### CONSTITUTIONAL SIGNS AND SYMPTOMS

anorexia  
chills  
fatigue  
fever  
generalized weakness  
jaundice  
malaise  
night sweats  
unintentional weight loss

### PHYSICAL EXAMINATION FINDINGS AND EVALUATIONS

abdominal reflex  
acalculia  
action tremor  
agnosia  
agraphia  
akinesia  
alexia  
anomia  
aphasia  
apraxia  
ataxia  
athetosis  
audiologic testing  
Brudzinski sign  
Chapman reflexes

clonus  
cognitive function testing  
cogwheel rigidity  
corneal reflex  
cremasteric reflex  
deep tendon (muscle stretch) reflexes  
dysarthria  
dysdiadochokinesia  
dyskinesia  
dysphasia  
fundoscopic abnormalities  
Glasgow coma scale scoring  
heel-to-shin test  
Hoffmann sign  
Kernig sign  
muscle tone testing  
nuchal rigidity  
orthostatic hypotension  
pallor  
plantar reflex (Babinski sign)  
pupillary light reflex  
red reflex  
Romberg sign  
slit-lamp examination  
tender points  
tuning-fork testing  
viscerosomatic/somatovisceral reflexes  
visual acuity testing

### LABORATORY AND DIAGNOSTIC TESTING

angiography  
audiologic testing  
autoimmune marker blood testing  
cerebrospinal fluid analysis  
CT scanning  
electroencephalography  
MRI  
nuclear medicine imaging  
PET scanning  
self-report questionnaires  
serum creatine kinase level  
transcranial Doppler ultrasonography  
vitamin levels (e.g., vitamin B<sub>12</sub>, folate)

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<b>5.1</b>	<b>POSTURAL AND SPINAL VARIATIONS</b>
<b>5.2</b>	<b>BACK PAIN AND SOMATIC DYSFUNCTION OF THE PELVIS, SACRUM, AND LUMBAR AND THORACIC SPINE</b>
<b>5.3</b>	<b>NECK PAIN AND SOMATIC DYSFUNCTION OF THE CERVICAL SPINE</b>
<b>5.4</b>	<b>GAIT VARIATIONS</b>
<b>5.5</b>	<b>JOINT PAIN, STIFFNESS, AND SWELLING</b>
<b>5.6</b>	<b>MUSCLE SYMPTOMS</b>
<b>5.7</b>	<b>CHEST WALL PAIN AND SOMATIC DYSFUNCTION OF THE THORACIC REGION AND RIBS</b>
<b>5.8</b>	<b>HEAD, OROFACIAL, AND TEMPOROMANDIBULAR JOINT PAIN AND SOMATIC DYSFUNCTION OF THE HEAD AND NECK</b>
<b>5.9</b>	<b>PAIN AND SOMATIC DYSFUNCTION OF THE EXTREMITIES</b>
<b>5.10</b>	<b>MUSCULOSKELETAL TRAUMA, INCLUDING FRACTURES AND DISLOCATIONS</b>
<b>5.11</b>	<b>SCIATICA AND RADICULAR SYMPTOMS</b>
<b>5.12</b>	<b>MUSCULOSKELETAL MASSES</b>
<b>5.13</b>	<b>SOMATIC MANIFESTATIONS OF SYSTEMIC DISEASE</b>
<b>5.14</b>	<b>VISCEROSOMATIC AND RELATED REFLEXES</b>
<b>5.15</b>	<b>PHYSICAL EXAM FINDINGS RELATED TO THE MUSCULOSKELETAL SYSTEM</b>
<b>5.16</b>	<b>LABORATORY AND DIAGNOSTIC TESTING RELATED TO THE MUSCULOSKELETAL SYSTEM</b>

Clinical presentations in this category may include, but are not limited to, the following conditions or situations prompting patients to present for osteopathic medical care:

<b>Bone disorders</b>	apophysitis • Osgood-Schlatter disease • osteitis deformans • osteogenesis imperfecta • osteomalacia • osteopenia • osteoporosis	<b>Lower extremity disorders</b>	Blount disease • femoral anteversion • genu varus/valgus • hip dysplasia • leg length inequality • Legg-Calvé-Perthes disease • medial tibial torsion • metatarsus adductus • patellar tracking syndrome • patellofemoral syndrome • pes planus • severe physiologic bowing • slipped capital femoral epiphysis • tibiotalar effusion
<b>Chronic pain disorders</b>	fibromyalgia • myalgic encephalomyelitis (chronic fatigue syndrome) • myofascial pain syndrome	<b>Soft tissue disorders</b>	benign hypermobility • bursitis • costochondritis • iliotibial band syndrome • necrotizing fasciitis • plantar fasciitis
<b>Connective tissue disorders</b>	Ehlers-Danlos syndrome • Marfan syndrome • mixed connective tissue disease • scleroderma • Sjögren syndrome • systemic lupus erythematosus	<b>Somatic dysfunctions</b>	cranial • cervical • thoracic • lumbar • sacral • pelvic • rib • shoulder • elbow • wrist • hip • knee • foot • abdomen • neuroreflexive mechanisms
<b>Crystal-induced arthropathies</b>	gout • pseudogout	<b>Spinal abnormalities</b>	kyphosis • lordosis • scoliosis • spina bifida
<b>Cysts</b>	bone cysts • ganglion cysts • synovial cysts	<b>Sprains, strains, and dislocations</b>	ankle sprain • shoulder dislocation
<b>Degenerative spinal disorders</b>	degenerative disk disease • disk herniation • spinal disk compression • spinal stenosis • spondylolisthesis • spondylolysis • spondylosis	<b>Tendon disorders</b>	Achilles tendinitis • enthesitis • impingement syndromes • lateral epicondylitis • medial epicondylitis • Osgood-Schlatter disease • tendon rupture • tenosynovitis
<b>Disorders of muscles and muscle compartments</b>	compartment syndrome • dermatomyositis • iliopsoas dysfunction • muscular atrophy • muscular dystrophy • piriformis syndrome • polymyositis • torticollis	<b>Tumors</b>	enchondroma • osteochondroma • sarcoma
<b>Fractures and other trauma</b>	compression fracture • crush injury • epiphyseal fracture • labral injury • pathologic fracture • spinal fracture • spiral fracture • stress fracture • whiplash syndrome	<b>Upper extremity disorders</b>	adhesive capsulitis • mallet finger • rotator cuff injury • trigger finger • winged scapula
<b>Infectious and inflammatory arthritis</b>	osteomyelitis • polymyalgia rheumatica • psoriatic arthritis • reactive arthritis • rheumatoid arthritis • septic arthritis • spondylitis		
<b>Joint disorders</b>	meniscal injury • neuropathic arthropathy • osteoarthritis • synovitis • temporomandibular joint dysfunction		

## CONSTITUTIONAL SIGNS AND SYMPTOMS

anorexia  
chills  
fatigue  
fever  
generalized weakness  
jaundice  
malaise  
night sweats  
unintentional weight loss

## PHYSICAL EXAMINATION FINDINGS AND EVALUATIONS

active and passive range-of-motion testing  
Adam's forward bend test  
Adson test  
anterior and posterior drawer signs (knee and ankle)  
Apley compression and distraction tests  
asymmetry, joint, regional, and segmental testing  
Barlow maneuver and Ortolani maneuver  
Bouchard and Heberden nodes  
bounce home test  
boutonniere and swan-neck deformities  
cervical compression test  
cervical distraction test  
Chapman reflexes  
Finkelstein test  
gait abnormalities

Homan sign  
Hoover sign  
layer-by-layer palpation  
Lhermitte sign  
McMurray test  
muscle strength grading  
Ottawa ankle rules  
pallor  
Patrick (FABERE) test  
percussion test  
Phalen maneuver and Tinel sign  
signs of inflammation (e.g., rubor, calor, tumor, dolor)  
shoulder apprehension test, Apley scratch test  
shoulder impingement testing (Hawkins-Kennedy test, drop-arm test, empty-can test, Neer test)  
straight-leg raising test  
stress testing of the ankle  
talar tilt test  
tender points  
tenderness  
Thomas test  
tissue texture abnormalities  
Trendelenburg test  
trigger points  
valgus and varus stress testing  
viscerosomatic/somatovisceral reflexes

## LABORATORY AND DIAGNOSTIC TESTING

alkaline phosphatase level  
antinuclear antibody testing  
autoantibody testing  
calcium and phosphate levels  
C-reactive protein level  
creatinine kinase level  
CT scanning  
DXA scanning  
erythrocyte sedimentation rate  
MRI  
nuclear medicine imaging  
parathyroid hormone level  
radiography  
rheumatoid factor testing  
synovial fluid evaluation  
ultrasonography  
vitamin D level

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<b>6.1</b>	<b>ANURIA, OLIGURIA, POLYURIA, AND EDEMA</b>
<b>6.2</b>	<b>ENURESIS/INCONTINENCE, PROLAPSE, AND PELVIC RELAXATION</b>
<b>6.3</b>	<b>URINARY FREQUENCY/HESITANCY, NOCTURIA, URINARY RETENTION, AND DYSURIA</b>
<b>6.4</b>	<b>HEMATURIA, PROTEINURIA, AND DISCOLORED URINE</b>
<b>6.5</b>	<b>AMENORRHEA AND ABNORMAL UTERINE BLEEDING</b>
<b>6.6</b>	<b>URETHRAL DISCHARGE</b>
<b>6.7</b>	<b>PELVIC PAIN</b>
<b>6.8</b>	<b>VULVAR AND VAGINAL DISCHARGE, PRURITUS, LESIONS, AND PAIN</b>
<b>6.9</b>	<b>PENILE, SCROTAL, AND TESTICULAR LESIONS, MASSES, PAIN, AND BLEEDING</b>
<b>6.10</b>	<b>PELVIC, PROSTATE, AND RENAL MASSES</b>
<b>6.11</b>	<b>BREAST MASSES, ASYMMETRY, SKIN CHANGES, DISCHARGE, AND PAIN</b>
<b>6.12</b>	<b>PHYSICAL EXAM FINDINGS RELATED TO THE GENITOURINARY/RENAL SYSTEM AND BREASTS</b>
<b>6.13</b>	<b>LABORATORY AND DIAGNOSTIC TESTING RELATED TO THE GENITOURINARY/RENAL SYSTEM AND BREASTS</b>

Clinical presentations in this category may include, but are not limited to, the following conditions or situations prompting patients to present for osteopathic medical care:

<b>Benign breast disorders</b>	fibroadenoma • fibrocystic disease • galactocele • intraductal papilloma • lipoma • mastitis
<b>Benign gynecologic disorders</b>	adenomyosis • endometriosis • leiomyoma • ovarian cyst • ovarian torsion • pelvic adhesions • pelvic inflammatory disease • toxic shock syndrome • vulvovaginitis
<b>Benign penile and prostate disorders</b>	benign prostatic hyperplasia • Peyronie disease • phimosis • prostatitis
<b>Malignant breast disorders</b>	carcinoma in situ • ductal carcinoma • inflammatory breast cancer • lobular carcinoma • Paget disease of the breast
<b>Malignant gynecologic disorders</b>	cervical cancer • endometrial cancer • ovarian cancer • vaginal cancer • vulvar cancer
<b>Malignant penile and prostate disorders</b>	penile cancer • prostate cancer
<b>Menstrual disorders</b>	amenorrhea (primary and secondary) • anovulatory bleeding • dysmenorrhea • menorrhagia
<b>Nephropathy</b>	acute kidney injury • chronic kidney disease • diabetic nephropathy • focal segmental glomerulosclerosis • glomerulonephritis • hypertensive nephropathy • minimal change disease • nephrolithiasis • polycystic kidney disease • tubular necrosis
<b>Pelvic organ prolapse</b>	cystocele • enterocele • rectocele • uterine prolapse • vaginal prolapse
<b>Sexually transmitted infections</b>	chlamydia • genital herpes • gonorrhea • human papillomavirus • syphilis • trichomoniasis
<b>Testicular and scrotal disorders</b>	epididymitis • hydrocele • orchitis • spermatocele • testicular torsion • varicocele
<b>Urinary cancers</b>	bladder cancer • kidney cancer • urethral cancer

<b>Urinary tract infections</b>	cystitis • painful bladder syndrome (interstitial cystitis) • pyelonephritis • urethritis
<b>Urination dysfunctions</b>	congenital outflow tract abnormalities • urinary incontinence (overflow, neurogenic, stress, surge) • urinary obstruction • urine retention

CONSTITUTIONAL SIGNS  
AND SYMPTOMS

anorexia  
chills  
fatigue  
fever  
generalized weakness  
jaundice  
malaise  
night sweats  
unintentional weight loss

PHYSICAL EXAMINATION  
FINDINGS AND EVALUATIONS

abdominal tenderness  
bacteriuria  
breast or genital masses  
bogginess  
cervical motion tenderness  
Chapman reflexes  
costovertebral angle tenderness  
enlargement, tenderness, or masses of the adnexal region  
galactorrhea  
generalized edema  
gross blood  
gynecomastia  
hematochezia/melena  
hematuria  
jaundice

lesions  
nodules  
pallor  
prostate size or symmetry abnormalities  
pyuria  
rectal tone abnormalities  
skin changes of the breast and genital region  
tender points  
tenderness  
viscerosomatic/somatovisceral reflexes

LABORATORY AND  
DIAGNOSTIC TESTING

antigen testing  
antibody testing  
blood gas analysis  
BUN level  
calcium level  
colposcopy  
CT scanning  
culture and sensitivity of blood, urine, semen, or vaginal discharge  
cystoscopy  
electrolyte panel  
endometrial sampling  
fine-needle aspiration  
Gram staining  
hormone levels  
MRI  
mammography

microscopy  
nuclear medicine imaging  
Pap smear  
radiography  
renal stone analysis  
serum  $\beta$ -HCG levels  
serum creatinine level  
tumor markers  
ultrasonography  
uric acid level  
urinalysis  
urinary citrate level  
urinary protein level  
vaginal wet mount, KOH prep



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<b>7.1</b>	<b>JAUNDICE</b>
<b>7.2</b>	<b>ASCITES</b>
<b>7.3</b>	<b>ANOREXIA (LOSS OF APPETITE)</b>
<b>7.4</b>	<b>NAUSEA, VOMITING, AND HEMATEMESIS</b>
<b>7.5</b>	<b>DISORDERS OF BOWEL FREQUENCY AND EVACUATION</b>
<b>7.6</b>	<b>ABDOMINAL PAIN</b>
<b>7.7</b>	<b>ABDOMINAL, GASTROINTESTINAL, AND GI TRACT MASSES, CANCERS, AND ORGANOMEGALY</b>
<b>7.8</b>	<b>MELENA/HEMATOCHEZIA/ANORECTAL BLEEDING AND PAIN</b>
<b>7.9</b>	<b>GASTROESOPHAGEAL REFLUX</b>
<b>7.10</b>	<b>OROPHARYNGEAL AND DENTAL PAIN AND LESIONS</b>
<b>7.11</b>	<b>CONDITIONS RELATED TO NUTRITION AND WEIGHT</b>
<b>7.12</b>	<b>ABDOMINAL TRAUMA</b>
<b>7.13</b>	<b>DYSPHAGIA AND ODYNOPHAGIA</b>
<b>7.14</b>	<b>FOREIGN BODY IN GASTROINTESTINAL TRACT</b>
<b>7.15</b>	<b>ABDOMINAL WALL ABNORMALITIES</b>
<b>7.16</b>	<b>PHYSICAL EXAM FINDINGS RELATED TO THE GASTROINTESTINAL SYSTEM AND NUTRITIONAL HEALTH</b>
<b>7.17</b>	<b>LABORATORY AND DIAGNOSTIC TESTING RELATED TO THE GASTROINTESTINAL SYSTEM AND NUTRITIONAL HEALTH</b>

Clinical presentations in this category may include, but are not limited to, the following conditions or situations prompting patients to present for osteopathic medical care:

<b>Abdominal injury</b>	blunt trauma • penetrating trauma • splenic rupture	<b>Liver disorders</b>	cholestasis • cirrhosis • fatty liver • hepatitis
<b>Anorectal disorders</b>	abscess • fissure • fistula • hemorrhoids • pruritus ani	<b>Neoplasms</b>	colon • esophagus • liver • mouth • pancreas • rectum • stomach
<b>Bowel disorders</b>	bowel obstruction • congenital conditions (Hirschsprung disease, Meckel diverticulum) • constipation • diverticular disease • fecal impaction • gastroparesis • ileus • inflammatory bowel disease • intestinal adhesions • irritable bowel syndrome • ischemic bowel • polyps • volvulus	<b>Ulcers</b>	duodenal • gastric • oral • peptic
<b>Dental disorders</b>	abscess • gingivitis • periodontal disease		
<b>Esophageal disorders</b>	Barrett esophagus • esophageal rupture • esophageal stricture • esophageal varices • foreign body ingestion • gastroesophageal reflux disease • laryngopharyngeal reflux • Mallory-Weiss tear		
<b>Gallbladder and biliary tract disorders</b>	bile duct obstruction • cholecystitis • choledocholithiasis • cholelithiasis • primary biliary cholangitis		
<b>Hernias</b>	abdominal wall • diaphragmatic • esophageal • femoral • hiatal • inguinal • umbilical		
<b>Infections</b>	<p><b>bacterial:</b> <i>Campylobacter</i> • <i>Clostridioides difficile</i> • <i>Escherichia coli</i> • <i>Helicobacter pylori</i> • <i>Salmonella</i> • <i>Shigella</i> • <i>Vibrio</i></p> <p><b>parasitic:</b> <i>Cryptosporidium</i> • <i>Entamoeba histolytica</i> • <i>Giardia</i></p> <p><b>viral:</b> adenovirus • norovirus • rotavirus</p> <p><b>by site:</b> appendicitis • duodenitis • esophagitis • gastritis • gastroenteritis • mesenteric adenitis • pancreatitis • peritonitis</p>		
<b>Intestinal malabsorption and hypersensitivity</b>	celiac disease • hypersensitivity reaction to food • lactose intolerance • short bowel syndrome		

CONSTITUTIONAL SIGNS  
AND SYMPTOMS

anorexia  
chills  
fatigue  
fever  
generalized weakness  
jaundice  
malaise  
night sweats  
unintentional weight loss

PHYSICAL EXAMINATION  
FINDINGS AND EVALUATIONS

abdominal auscultation  
abdominal distention  
abdominal percussion  
abdominal rigidity  
abdominal tenderness  
asterixis  
caput medusae  
Chapman reflexes  
Cullen sign  
fluid wave  
Grey Turner sign  
gross blood  
guarding  
hematochezia/melena  
hepatomegaly

jaundice  
masses  
Murphy sign  
pallor  
peritoneal signs  
puddle maneuver  
rebound tenderness  
rectal tone abnormalities  
shifting dullness  
spider angiomas  
splenomegaly  
tender points  
viscerosomatic/somatovisceral reflexes

LABORATORY AND  
DIAGNOSTIC TESTING

ALT, AST, GGT levels  
amylase level  
carcinoembryonic antigen level  
*Clostridioides difficile* testing  
complete blood count  
C-reactive protein level  
CT scanning  
endoscopy (upper and lower GI)  
erythrocyte sedimentation rate  
esophageal manometry and pH monitoring  
fecal occult blood testing  
fluoroscopy  
gastrointestinal endoscopy

*Helicobacter pylori* stool antigen or breath testing  
hematocrit  
hemoglobin levels  
lipase level  
MRI  
nuclear medicine imaging  
pancreatic function testing (e.g., fecal elastase)  
radiography  
SIBO culture  
stool culture  
stool for ova and parasites  
tissue transglutaminase antibody and antimicrobial antibody levels  
ultrasonography  
viral hepatitis panels

Patient presentations span all ages and gender identities, reflecting patients from diverse backgrounds, cultures, and abilities and their reasons for presenting to osteopathic physicians in varied clinical settings. This clinical presentation may include items testing the application of research, professionalism, and systems-based practice involving this body system.

<b>8.1</b>	<b>CARDIOVASCULAR CHEST PAIN</b>
<b>8.2</b>	<b>PALPITATIONS AND RHYTHM DISTURBANCES</b>
<b>8.3</b>	<b>EDEMA AND SWELLING</b>
<b>8.4</b>	<b>MASSES AND LYMPHADENOPATHY</b>
<b>8.5</b>	<b>EXTREMITY PAIN AND CLAUDICATION</b>
<b>8.6</b>	<b>SHORTNESS OF BREATH/DYSPNEA AND ORTHOPNEA</b>
<b>8.7</b>	<b>BRUISING, BLEEDING, AND CLOTTING DISTURBANCES</b>
<b>8.8</b>	<b>CIRCULATORY COLLAPSE AND SHOCK</b>
<b>8.9</b>	<b>BLOOD PRESSURE EVALUATION</b>
<b>8.10</b>	<b>CHEST TRAUMA</b>
<b>8.11</b>	<b>BLOOD DYSCRASIAS</b>
<b>8.12</b>	<b>PHYSICAL EXAM FINDINGS RELATED TO THE CIRCULATORY AND HEMATOLOGIC SYSTEMS</b>
<b>8.13</b>	<b>LABORATORY AND DIAGNOSTIC TESTING RELATED TO THE CIRCULATORY AND HEMATOLOGIC SYSTEMS</b>

Clinical presentations in this category may include, but are not limited to, the following conditions or situations prompting patients to present for osteopathic medical care:

<b>Anemias</b>	anemia of chronic disease • aplastic anemia • folate deficiency • hemolytic anemia • iron deficiency • sickle cell disease • thalassemia • vitamin B <sub>12</sub> deficiency
<b>Arrhythmias</b>	atrial fibrillation • atrial flutter • heart block • long QT syndrome • premature atrial/ventricular contractions • sick sinus syndrome • sinus bradycardia • supraventricular tachycardia • ventricular fibrillation • ventricular tachycardia
<b>Blood pressure disorders</b>	hypertension • hypotension • near-syncope • pulmonary hypertension
<b>Cardiac disorders</b>	angina pectoris • cardiac arrest • cardiac tamponade • cardiomyopathy • heart failure • myocardial infarction
<b>Chest injury</b>	blunt trauma • cardiac contusion • penetrating trauma
<b>Coagulation disorders</b>	disseminated intravascular coagulopathy • factor V Leiden mutation • hemophilia • von Willebrand disease
<b>Congenital cardiovascular disorders</b>	arteriovenous malformation • atrial septal defect • bicuspid aortic valve • coarctation of the aorta • patent ductus arteriosus • patent foramen ovale • pulmonary valve stenosis • tetralogy of Fallot • transposition of the great arteries • ventricular septal defect
<b>Hematologic disorders</b>	amyloidosis • eosinophilia • hemochromatosis • hemolytic uremic syndrome • HIV infection/AIDS • malaria • polycythemia • sepsis • thrombocytopenia • thrombocytosis
<b>Hematologic malignancies</b>	cancer metastasis • leukemia • lymphoma • multiple myeloma
<b>Inflammatory/infectious cardiovascular disorders</b>	aortitis • endocarditis • myocarditis • pericarditis • vasculitis

<b>Lymphatic disorders</b>	lymphangioma • lymphangitis • lymphatic obstruction • lymphedema
<b>Shock</b>	cardiogenic • distributive • hypovolemic • mixed/unknown • obstructive • undifferentiated
<b>Valvular heart disorders</b>	aortic regurgitation • aortic stenosis • mitral regurgitation • mitral stenosis • mitral valve prolapse
<b>Vascular disorders</b>	aortic aneurysm and dissection • arteriosclerosis • arteritis • chronic venous insufficiency • coronary artery disease • deep vein thrombosis • hemangioma • IgA vasculitis • Kawasaki disease • mesenteric ischemia • pulmonary embolism • peripheral vascular disease • Raynaud syndrome • vasculitis • venous stasis/insufficiency

**CONSTITUTIONAL SIGNS  
AND SYMPTOMS**

anorexia  
chills  
fatigue  
fever  
generalized weakness  
jaundice  
malaise  
night sweats  
unintentional weight loss

**PHYSICAL EXAMINATION  
FINDINGS AND EVALUATIONS**

arterial pulse evaluation  
blood pressure measurement  
calf tenderness, swelling  
cardiac murmur  
cardiac rub  
cardiac thrill  
Chapman reflexes  
clubbing  
cyanosis  
delayed/unequal pulses  
edema  
heart sounds  
hepatomegaly  
Janeway lesions  
jugular venous pressure

jugular venous wave forms  
lymphadenopathy  
pallor  
parasternal heave  
petechiae  
point of maximal impulse  
pulsus alternans  
pulsus parvus  
purpura  
splenomegaly  
splinter hemorrhages  
tender points  
vascular bruits  
viscerosomatic/somatovisceral reflexes  
waterhammer pulse

**LABORATORY AND  
DIAGNOSTIC TESTING**

angiography  
B-type natriuretic peptide level  
blood cultures  
blood typing  
cardiac enzyme levels  
CD4 count  
coagulation factor assays  
coagulation profile  
complete blood count  
C-reactive protein level  
CT scanning

D-dimer level  
ECG, 12-lead and rhythm strips  
echocardiography  
erythrocyte sedimentation rate  
genetic testing  
hemoglobin electrophoresis  
high-sensitivity troponin levels  
HIV testing (antibody, antigen, viral load)  
iron studies  
lipid profile  
MRI  
nuclear medicine imaging  
peripheral blood smear  
radiography  
reticulocyte count  
serum protein electrophoresis  
stress testing  
tilt-table test  
ultrasonography

Patient presentations span all ages and gender identities, reflecting patients from diverse backgrounds, cultures, and abilities and their reasons for presenting to osteopathic physicians in varied clinical settings. This clinical presentation may include items testing the application of research, professionalism, and systems-based practice involving this body system.

<b>9.1</b>	<b>COUGH</b>
<b>9.2</b>	<b>SORE THROAT</b>
<b>9.3</b>	<b>SHORTNESS OF BREATH</b>
<b>9.4</b>	<b>NASAL BLEEDING</b>
<b>9.5</b>	<b>AIRWAY OBSTRUCTION</b>
<b>9.6</b>	<b>NASAL DISCHARGE</b>
<b>9.7</b>	<b>EAR PAIN/EAR DISCHARGE</b>
<b>9.8</b>	<b>RESPIRATORY ARREST</b>
<b>9.9</b>	<b>RESPIRATORY CHEST PAIN</b>
<b>9.10</b>	<b>RESPIRATORY GROWTHS AND MALFORMATIONS</b>
<b>9.11</b>	<b>PHYSICAL EXAM FINDINGS RELATED TO THE RESPIRATORY SYSTEM</b>
<b>9.12</b>	<b>LABORATORY AND DIAGNOSTIC TESTING RELATED TO THE RESPIRATORY SYSTEM</b>

Clinical presentations in this category may include, but are not limited to, the following conditions or situations prompting patients to present for osteopathic medical care:

<b>Acute respiratory disorders</b>	acute respiratory distress syndrome • airway foreign body • anaphylaxis • bronchiolitis • bronchitis • epiglottitis • hemothorax • laryngitis • mastoiditis • nasopharyngitis • otitis externa • otitis media • pharyngitis • pneumonia • pneumothorax • retropharyngeal abscess • rhinitis • sinusitis • smoke inhalation • tonsillitis • tracheitis
<b>Chronic respiratory disorders</b>	asthma • bronchiectasis • chronic obstructive pulmonary disease • interstitial lung disease • occupational lung disease • pulmonary fibrosis • ventilator dependence
<b>Genetic disorders</b>	$\alpha_1$ -antitrypsin deficiency • cystic fibrosis
<b>Infections</b>	<p>bacterial: anthrax • diphtheria • pertussis • tuberculosis</p> <p>fungal: aspergillosis • blastomycosis • coccidioidomycosis • cryptococcosis • histoplasmosis</p> <p>viral: adenovirus • coronavirus • influenza • mononucleosis • respiratory syncytial virus • rhinovirus</p>
<b>Neoplasms, masses, and nodules</b>	<p>by site: bronchi • chest wall • lungs • mediastinum • oropharynx • pleura</p> <p>by type: teratoma • thymoma</p>
<b>Structural pulmonary disorders</b>	chylothorax • pulmonary effusion • pulmonary embolism • pulmonary fistula or web



CONSTITUTIONAL SIGNS  
AND SYMPTOMS

anorexia  
chills  
fatigue  
fever  
generalized weakness  
jaundice  
malaise  
night sweats  
unintentional weight loss

PHYSICAL EXAMINATION  
FINDINGS AND EVALUATIONS

breath sounds  
bronchophony  
Chapman reflexes  
chest percussion  
chest wall expansion  
chest wall morphology abnormalities  
clubbing  
crepitus  
cyanosis  
diaphragmatic excursion  
dullness  
dyspnea  
egophony  
epistaxis  
fremitus  
hoarseness  
pallor  
rales  
resonance  
rhinorrhea  
rhonchi  
stridor  
subcutaneous emphysema  
swelling  
tactile fremitus  
tender points  
tenderness  
tympany  
viscerosomatic/somatovisceral reflexes  
wheezing

LABORATORY AND  
DIAGNOSTIC TESTING

allergy testing  
blood gas analysis  
bronchoscopy  
CT scanning  
fluoroscopy  
MRI  
nuclear medicine imaging  
PCR antigen testing (e.g., COVID-19)  
pulmonary function testing  
pulse oximetry  
tuberculosis testing (purified protein derivative (PPD)  
skin test, interferon-gamma release assay, Mantoux  
test)  
radiography  
special stains, culture and sensitivity (e.g., sputum,  
blood, otic)  
spirometry  
sweat chloride testing  
thoracentesis (e.g., exudate, transudate)  
tympanometry  
ultrasonography

Patient presentations span all ages and gender identities, reflecting patients from diverse backgrounds, cultures, and abilities and their reasons for presenting to osteopathic physicians in varied clinical settings. This clinical presentation may include items testing the application of research, professionalism, and systems-based practice involving this body system.

<b>10.1</b>	<b>HAIR AND SCALP DISORDERS</b>
<b>10.2</b>	<b>CYANOSIS/PALLOR/PIGMENTATION DISTURBANCES AND DISORDERS OF COLORATION</b>
<b>10.3</b>	<b>NAIL DISORDERS</b>
<b>10.4</b>	<b>LESIONS/ULCERS/MASSES</b>
<b>10.5</b>	<b>PRURITUS</b>
<b>10.6</b>	<b>RASHES, EXANTHEMS, AND ACNE</b>
<b>10.7</b>	<b>BURNS</b>
<b>10.8</b>	<b>WOUNDS</b>
<b>10.9</b>	<b>URTICARIA AND ANGIOEDEMA</b>
<b>10.10</b>	<b>DERMATOLOGIC PRESENTATIONS OF SYSTEMIC DISEASE</b>
<b>10.11</b>	<b>SWEATING DISORDERS</b>
<b>10.12</b>	<b>BITES/STINGS/INFESTATIONS</b>
<b>10.13</b>	<b>PHYSICAL EXAM FINDINGS RELATED TO THE INTEGUMENTARY SYSTEM</b>
<b>10.14</b>	<b>LABORATORY AND DIAGNOSTIC TESTING RELATED TO THE INTEGUMENTARY SYSTEM</b>

Clinical presentations in this category may include, but are not limited to, the following conditions or situations prompting patients to present for osteopathic medical care:

<b>Carcinoma</b>	basal cell • melanoma • squamous cell
<b>Dermatologic disorders</b>	keratotic disorders • lichen sclerosus et atrophicus • neurofibromatosis • precancerous lesions • Stevens-Johnson syndrome
<b>Hair-related disorders</b>	alopecia • folliculitis • hypertrichosis
<b>Infections</b>	<b>bacterial:</b> cellulitis • impetigo
	<b>fungal:</b> candidiasis • tinea
	<b>parasitic:</b> pediculosis • scabies
	<b>viral:</b> herpes simplex • varicella
<b>Inflammatory and immunologic disorders</b>	acne • bullous pemphigoid • dermatitis • discoid lupus erythematosus • eczema • lichen planus • mast cell activation disorders • pemphigus vulgaris • psoriasis • rosacea • urticaria
<b>Pigmentation disorders</b>	nevi • solar lentigo • vitiligo
<b>Sweat gland-related disorders</b>	bromhidrosis • hidradenitis suppurativa • hyperhidrosis • miliaria
<b>Trauma and wounds</b>	abrasions/lacerations • bites and stings (human, animal, insect) • burns (chemical, electrical, thermal; sunburn)
<b>Ulcers</b>	arterial • pressure • venous
<b>Ungual disorders</b>	nail bed injury • onychomycosis • paronychia • subungual hematoma

**CONSTITUTIONAL SIGNS  
AND SYMPTOMS**

anorexia  
chills  
fatigue  
fever  
generalized weakness  
jaundice  
malaise  
night sweats  
unintentional weight loss

**PHYSICAL EXAMINATION  
FINDINGS AND EVALUATIONS**

abrasions  
asymmetrical lesions  
atrophy  
Auspitz sign  
beau lines  
blanching  
bullae/vesicles  
carbuncles  
Chapman reflexes  
contusions  
dermatographia  
discharge  
erosion  
excessive skin moisture  
furuncles

Janeway lesions  
koilonychia  
lacerations  
macules/patches  
Muehrcke lines  
Nikolsky sign  
nodules/cysts  
pallor  
palpatory findings  
papules  
petechiae/purpura  
pitting  
plaques  
pustules  
scaling  
skin discoloration  
skin thickening  
splinter hemorrhages  
temperature change  
tender points  
tenderness  
Terry nails  
urticaria  
viscerosomatic/somatovisceral reflexes

**LABORATORY AND  
DIAGNOSTIC TESTING**

allergy testing  
autoimmune testing  
complete blood count  
complete metabolic profile  
CT scanning  
cytology  
culture and sensitivity  
dermatoscopy  
fungal cultures  
Gram staining  
microscopy  
MRI  
sedimentation rate  
skin biopsy  
ultrasonography  
viral cultures  
Wood lamp examination

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Published September 2018  
Updated February 2025