

## National Physical Therapy Examination (NPTE) Test Content Outline – Physical Therapist

*This test is designed to measure whether or not an examinee has the requisite knowledge required of entry-level physical therapist practitioners. The focus is on the **clinical application** of knowledge, concepts and principles necessary for the provision of **safe and effective patient care**. Provision of safe patient care includes consideration of **current best evidence** from clinically relevant research regarding the safety and efficacy of therapeutic, rehabilitative, and preventive physical therapy services.*

Content Area Description (# Items)	# Items	% Items
<b>Clinical Application of Foundational Sciences</b> Cardiac, Vascular & Pulmonary Systems (5) Musculoskeletal System (6) Neuromuscular & Nervous Systems (6) Integumentary System (3) Other Systems* (9)	<b>29</b>	<b>14.5%</b>
<b>Examination/ Foundations for Evaluation, Differential Diagnosis, &amp; Prognosis</b> Examination Cardiac, Vascular & Pulmonary Systems (4) Musculoskeletal System (9) Neuromuscular & Nervous Systems (9) Integumentary System (3) Other Systems* (1) Foundations for Evaluation, Differential Diagnosis, & Prognosis Cardiac, Vascular & Pulmonary Systems (7) Musculoskeletal System (10) Neuromuscular & Nervous Systems (9) Integumentary System (3) Other Systems* (18)	<b>73</b>	<b>36.5%</b>
<b>Interventions/ Equipment &amp; Devices; Therapeutic Modalities</b> Interventions Cardiac, Vascular & Pulmonary Systems (7) Musculoskeletal System (11) Neuromuscular & Nervous Systems (10) Integumentary System (5) Other Systems* (4) Equipment & Devices; Therapeutic Modalities Equipment & Devices (10) Therapeutic Modalities (12)	<b>59</b>	<b>29.5%</b>
<b>Safety, Protection, &amp; Professional Roles; Teaching &amp; Learning; Research &amp; Evidence-Based Practice</b> Safety, Protection, & Professional Roles (15) Teaching & Learning (11) Research & Evidence-Based Practice (13)	<b>39</b>	<b>19.5%</b>
<b>Total</b>	<b>200</b>	<b>100%</b>

- Other Systems include one or more of the following: Metabolic & Endocrine, Gastrointestinal, Genitourinary, and Multi-System Involvement.

## Cardiac, Vascular, & Pulmonary Systems

**Clinical Application of Foundational Sciences:** This category refers to the essential scientific principles that serve as the foundation for understanding the involvement of the cardiac, vascular, and pulmonary systems in the treatment of patients/clients across the lifespan.

- Anatomy, physiology, and pathophysiology of the cardiac, vascular, and pulmonary systems
- Anatomy, physiology, and pathophysiology of the lymphatic system
- Pharmacology as related to the cardiovascular/pulmonary system
- Physiological response to environmental factors and characteristics (e.g., air temperature, humidity, water temperature, water depth, buoyancy, altitude)
- Effects of activity and exercise on the cardiovascular/pulmonary system (including the physiological response of the cardiovascular/pulmonary system to various types of test/measures and interventions)

**Examination:** This category refers to awareness of the types and applications of cardiac, vascular, and pulmonary systems tests and measures and their relevance to information collected from the history and systems review. The category includes the reaction of the cardiac, vascular, and pulmonary systems to tests and measures, and the mechanics of body movement as related to the cardiac, vascular, and pulmonary systems. Information covered in these areas supports appropriate and effective patient/client management across the lifespan.

- Appropriate types of cardiovascular/pulmonary system tests/measures and their applications
- Movement analysis as related to the cardiovascular/pulmonary system (e.g., rib cage excursion)

**Foundations for Evaluation, Differential Diagnosis and Prognosis:** This category refers to the interpretation of knowledge about the diseases and conditions of cardiac, vascular, and pulmonary systems in order to ensure the appropriate and effective patient/client treatment and management decisions across the lifespan.

- Diseases/conditions of the cardiac, vascular, and pulmonary systems
- Diseases/conditions of the lymphatic system
- Differential diagnoses related to pathologies of the cardiac, vascular, and pulmonary systems
- Differential diagnoses related to pathologies of the lymphatic system
- Diseases or conditions of the cardiac, vascular, and pulmonary systems in order to make effective treatment decisions
- Diseases or conditions of the lymphatic system in order to make effective treatment decisions
- Diagnostic imaging of the cardiovascular/pulmonary system
- Medical management of the cardiovascular/pulmonary system (e.g., surgical procedures, medical tests)

**Interventions:** This category refers to the cardiac, vascular, and pulmonary systems interventions (including types, applications, responses, and potential complications) as well as the impact on the cardiac, vascular, and pulmonary systems of interventions performed on other systems in order to support patient/client management across the lifespan.

- Appropriate types of cardiovascular/pulmonary system interventions and their applications
- Secondary effects or complications from interventions on cardiovascular/pulmonary system
- Secondary effects or complications on cardiovascular/pulmonary system from interventions used on other systems

## Musculoskeletal System

**Clinical Application of Foundational Sciences:** This category refers to the essential scientific principles that serve as the foundation for understanding musculoskeletal system involvement in the treatment of patients/clients across the lifespan.

- Anatomy, physiology, and pathophysiology of the muscular and skeletal systems
- Pharmacology as related to the musculoskeletal system
- Physiological response to environmental factors and characteristics (e.g., air temperature, humidity, water temperature, water depth, buoyancy, altitude)
- Effects of activity and exercise on the musculoskeletal system
- Joint structure
- Joint functionality and mobility

**Examination:** This category refers to the types and applications of musculoskeletal system tests and measures and their relevance to information collected during history and systems review. The category also includes the reaction of the musculoskeletal system to tests and measures, and the mechanics of body movement as related to the musculoskeletal system. Information covered in these areas supports appropriate and effective patient/client management across the lifespan.

- Appropriate types of musculoskeletal system tests/measures and their applications
- Physiological response of the musculoskeletal system to various types of tests/measures
- Movement analysis including application of kinesiology/kinematics as related to the musculoskeletal system (e.g., gait analysis)

**Foundations for Evaluation, Differential Diagnosis and Prognosis:** This category refers to the diseases and conditions of musculoskeletal system in order to ensure the appropriate and effective patient/client treatment and management decisions across the lifespan.

- Diseases/conditions of the muscular and skeletal systems
- Diseases/conditions of the connective tissue
- Differential diagnoses related to pathologies of the muscular and skeletal systems
- Differential diagnoses related to pathologies of the connective tissue
- Diseases or conditions of the muscular and skeletal systems in order to make effective treatment decisions
- Diseases or conditions of the connective tissue in order to make effective treatment decisions
- Diagnostic imaging of the musculoskeletal system
- Medical management of the musculoskeletal system (e.g., surgical procedures, medical tests)

**Interventions:** This category refers to the features (e.g., types, applications, responses, and potential complications) of musculoskeletal system interventions as well as the impact on the musculoskeletal system of interventions performed on other systems in order to support patient/client management across the lifespan.

- Appropriate types of musculoskeletal system interventions and their applications
- Physiological response of the musculoskeletal system to various types of interventions
- Secondary effects or complications from interventions on musculoskeletal system
- Secondary effects or complications on musculoskeletal system from interventions used on other systems

## Neuromuscular & Nervous Systems

**Clinical Application of Foundational Sciences:** This category refers to the essential scientific principles that serve as the foundation for understanding neuromuscular/nervous system involvement in the treatment of patients/clients across the lifespan.

- Anatomy, physiology, and pathophysiology of the neuromuscular system
- Anatomy, physiology, and pathophysiology of the nervous system (CNS, PNS, ANS)
- Pharmacology as related to the neuromuscular/nervous system
- Physiological response to environmental factors and characteristics (e.g., air temperature, humidity, water temperature, water depth, buoyancy, altitude)
- Effects of activity and exercise as related to the neuromuscular/nervous system
- Motor control as related to the neuromuscular/nervous system
- Motor learning as related to the neuromuscular/nervous system
- Neurological functioning (e.g., cognition, affect, arousal, memory)

**Examination:** This category refers to awareness of the types and applications of neuromuscular/nervous system tests and measures and their relevance to information collected during history and systems review. The category also includes the reaction of the neuromuscular/nervous system to tests and measures, and the mechanics of body movement as related to the neuromuscular/nervous system. Information covered in these areas supports appropriate and effective patient/client management across the lifespan.

- Appropriate types of neuromuscular/nervous system tests/measures and their applications
- Physiological response of the neuromuscular/nervous system to various types of test/measures
- Movement analysis including application of kinesiology/kinematics as related to the neuromuscular/nervous system (e.g., gait analysis, balance assessment)

**Foundations for Evaluation, Differential Diagnosis and Prognosis:** This category refers to the diseases and conditions of neuromuscular/nervous system in order to ensure the appropriate and effective patient/client treatment and management decisions across the lifespan.

- Diseases/conditions of the nervous system (CNS, PNS, ANS)
- Differential diagnoses related to pathologies of the nervous system (CNS, PNS, ANS)
- Diseases or conditions of the nervous system (CNS, PNS, ANS) in order to make effective treatment decisions
- Diagnostic imaging of the neuromuscular/nervous system
- Medical management of the neuromuscular/nervous system (e.g., surgical procedures, medical tests)

**Interventions:** This category refers to the features (e.g., types, applications, responses, and potential complications) of neuromuscular/nervous system interventions as well as the impact on the neuromuscular/nervous system of interventions performed on other systems in order to support patient/client management across the lifespan.

- Appropriate types of neuromuscular/nervous system interventions and their applications
- Physiological response of the neuromuscular/nervous system to various types of interventions
- Secondary effects or complications from interventions on neuromuscular/nervous system
- Secondary effects or complications on neuromuscular/nervous system from interventions used on other systems

- Motor control as related to neuromuscular/nervous system interventions
- Motor learning as related to neuromuscular/nervous system interventions

## **Integumentary System**

**Clinical Application of Foundational Sciences:** This category refers to the essential scientific principles that serve as the foundation for understanding integumentary system involvement in the treatment of patients/clients across the lifespan.

- Anatomy, physiology, and pathophysiology of the integumentary system
- Pharmacology as related to the integumentary system
- Physiological response to environmental factors and characteristics (e.g., air temperature, humidity, water temperature, water depth, buoyancy, altitude)
- Effects of activity and exercise on the integumentary system

**Examination:** This category refers to awareness of the types and applications of integumentary system tests and measures and their relevance to information collected during history and systems review. The category also includes the reaction of the integumentary system to tests and measures. Information covered in these areas supports appropriate and effective patient/client management across the lifespan.

- Appropriate types of integumentary system tests/measures and their applications
- Physiological response of the integumentary system to various types of tests/measures
- Movement analysis as related to the integumentary system (e.g., friction, shear, pressure, and scar).

**Foundations for Evaluation, Differential Diagnosis and Prognosis:** This category refers to the diseases and conditions of integumentary system in order to ensure the appropriate and effective patient/client treatment and management decisions across the lifespan.

- Diseases/conditions of the integumentary system
- Differential diagnoses related to pathologies of the integumentary system
- Diseases or conditions of the integumentary system in order to make effective treatment decisions
- Medical management of the integumentary system (e.g., surgical procedures, medical tests)

**Interventions:** This category refers to the features (e.g., types, applications, responses, and potential complications) of integumentary system interventions as well as the impact on the integumentary system of interventions performed on other systems in order to support patient/client management across the lifespan.

- Appropriate types of integumentary system interventions and their applications
- Physiological response of the integumentary system to various types of interventions
- Secondary effects or complications from interventions on integumentary system
- Secondary effects or complications on integumentary system from interventions used on other systems
- Wound management techniques (e.g., selective debridement, nonselective debridement, dressings, topical agents)

## Metabolic & Endocrine Systems

**Clinical Application of Foundational Sciences:** This category refers to the essential scientific principles that serve as the foundation for understanding metabolic and endocrine systems' involvement in the treatment of patients/clients across the lifespan.

- Anatomy of the endocrine system
- Physiology and pathophysiology of the metabolic and endocrine systems
- Pharmacology as related to the metabolic and endocrine systems
- Physiological response to environmental factors and characteristics (e.g., air temperature, humidity, water temperature, water depth, buoyancy, altitude)
- Effects of activity and exercise on the metabolic and endocrine systems

**Examination:** This category refers to awareness of the types and applications of metabolic and endocrine tests and measures and their relevance to information collected during history and systems review. The category also includes the reaction of the metabolic and endocrine systems to tests and measures. Information covered in these areas supports appropriate and effective patient/client management across the lifespan.

- Appropriate types of metabolic and endocrine systems tests/measures and their applications
- Physiological response of the metabolic and endocrine systems to various types of tests/measures

**Foundations for Evaluation, Differential Diagnosis and Prognosis:** This category refers to the diseases and conditions of metabolic and endocrine systems in order to ensure the appropriate and effective patient/client treatment and management decisions across the lifespan.

- Diseases/conditions of the metabolic and endocrine systems
- Differential diagnoses related to pathologies of the metabolic and endocrine systems
- Diseases or conditions of the metabolic and endocrine systems in order to make effective treatment decisions
- Medical management of the metabolic and endocrine systems (e.g., surgical procedures, medical tests)

**Interventions:** This category refers to the features (e.g., types, applications, responses, and potential complications) of metabolic and endocrine systems interventions as well as the impact on the metabolic and endocrine systems of interventions performed on other systems in order to support patient/client management across the lifespan.

- Appropriate types of metabolic and endocrine systems interventions and their applications
- Physiological response of the metabolic and endocrine systems to various types of interventions
- Secondary effects or complications from interventions on metabolic and endocrine systems
- Secondary effects or complications on metabolic and endocrine systems from interventions used on other systems

## Gastrointestinal System

**Clinical Application of Foundational Sciences:** This category refers to the essential scientific principles that serve as the foundation for understanding gastrointestinal system involvement in the treatment of patients/clients across the lifespan.

- Anatomy, physiology, and pathophysiology of the gastrointestinal system
- Effects of activity and exercise on the gastrointestinal system

**Foundations for Evaluation, Differential Diagnosis and Prognosis:** This category refers to the interpretation of knowledge of diseases and conditions of gastrointestinal system in order to ensure the appropriate and effective patient/client treatment and management decisions across the lifespan.

- Diseases/conditions of the gastrointestinal system
- Diseases or conditions of the gastrointestinal system in order to make effective treatment decisions

**Interventions:** This category refers to the features (e.g., types, applications, responses, and potential complications) of gastrointestinal system interventions and their relevance to information collected during history and systems review and examination. It also includes the impact on the gastrointestinal system of interventions performed on other systems in order to support patient/client management across the lifespan.

- Appropriate types of gastrointestinal system interventions and their applications (e.g., positioning for reflux, positioning for bowel programs)
- Physiological response of the gastrointestinal system to various types of interventions
- Secondary effects or complications from interventions on gastrointestinal system
- Secondary effects or complications on gastrointestinal system from interventions used on other systems

## Genitourinary System

**Clinical Application of Foundational Sciences:** This category refers to the essential scientific principles that serve as the foundation for understanding genitourinary system involvement in the treatment of patients/clients across the lifespan.

- Anatomy, physiology, and pathophysiology of the genitourinary system
- Effects of activity and exercise on the genitourinary system
- Motor control as related to the genitourinary system
- Motor learning as related to the genitourinary system

**Foundations for Evaluation, Differential Diagnosis and Prognosis:** This category refers to the diseases and conditions of genitourinary system in order to ensure the appropriate and effective patient/client treatment and management decisions across the lifespan.

- Diseases/conditions of the genitourinary system
- Diseases or conditions of the genitourinary system in order to make effective treatment decisions

**Interventions:** This category refers to the features (e.g., types, applications, and potential complications)

of genitourinary system interventions as well as the impact on the genitourinary system of interventions performed on other systems in order to support patient/client management across the lifespan.

- Appropriate types of genitourinary system interventions and their applications (e.g., positioning for bladder programs, biofeedback, pelvic floor retraining)
- Secondary effects or complications from interventions on genitourinary system
- Secondary effects or complications on genitourinary system from interventions used on other systems

## Multi-System

**Clinical Applications of Foundational Sciences:** This category refers to the essential scientific principles that serve as the foundation for understanding multi-system involvement in the treatment of patients/clients across the lifespan.

- Normal interrelationships among multiple systems
- Polypharmacy as it relates to multi-system involvement
- Physiological response to environmental factors and characteristics (e.g., air temperature, humidity, water temperature, water depth, buoyancy, altitude)

**Foundations for Evaluation, Differential Diagnosis and Prognosis:** This category refers to the interpretation of knowledge of multiple system involvement in order to ensure the appropriate and effective patient/client treatment and management decisions.

- Diseases/conditions affecting multiple systems (e.g., cancer, pregnancy, morbid obesity)
- Differential diagnoses related to pathologies of multi-system involvement
- Diseases or conditions of multiple systems in order to make effective patient/client management decisions
- Medical management of multiple systems (e.g., surgical procedures, medical tests, diagnostic imaging)
- Impact of co-morbidities/co-existing conditions on patient/client management (e.g., diabetes and hypertension; obesity and arthritis; hip fracture and dementia)
- Psychological and psychiatric conditions that impact patient/client management (e.g., depression, schizophrenia)

## Equipment & Devices

This category refers to the different types of equipment and devices, use requirements and/or contextual determinants, as well as any other influencing factors involved in the selection and application of equipment and devices in order to support patient/client treatment and management decisions across the lifespan.

- Assistive and adaptive devices
- Prosthetic devices
- Orthotic devices
- Protective devices
- Supportive devices
- Gravity-assisted devices
- Bariatric equipment and devices

## **Therapeutic Modalities**

This category refers to the underlying principles for the use of therapeutic modalities as well as the justification for the selection and use of the variety of types of therapeutic modalities employed to support patient/client treatment and management decisions across the lifespan.

- Indications, contraindications, and precautions of therapeutic modalities
- Physical agents (e.g., athermal agents, cryotherapy, hydrotherapy, light agents, sound agents, thermotherapy)
- Mechanical modalities (e.g., compression therapies, mechanical motion devices, traction devices)
- Electrotherapeutic delivery of medications (e.g., iontophoresis)
- Electrical stimulation (e.g., Functional Electrical Stimulation (FES), High Voltage Pulsed Current (HVPC), Neuromuscular Electrical Stimulation (NES), TENS)

## **Safety, Protection, & Professional Roles**

This category refers to the critical issues involved in patient/client safety and protection and the responsibilities of healthcare providers to ensure that patient/client management and healthcare decisions take place in a secure and trustworthy environment.

- Factors influencing patient/client safety (e.g., fall risk, use of restraints, use of equipment, environmental factors)
- Emergency preparedness (e.g., CPR, first aid, disaster response)
- Proper body mechanics
- Injury prevention
- Infection control procedures (e.g., standard/universal precautions)
- Legal obligations for reporting abuse and neglect
- Patient/client rights (e.g., ADA, IDEA, HIPAA)
- Human resource legal issues (e.g., OSHA, sexual harassment)
- Standards of documentation
- Risk guidelines (e.g., documentation, policies and procedures, incident reports)
- Roles and responsibilities of other healthcare professionals and support staff

## **Teaching & Learning**

This category refers to the principles and theories of teaching and learning required to create a learning environment in which information is effectively communicated to patients/clients to ensure that they receive appropriate instruction designed to support patient/client management decisions.

- Teaching and learning strategies, theories, and techniques (e.g., cognitive, motor, models of education)
- Health behavior change models
- Communication skills

## **Research & Evidence-Based Practice**

This category refers to the application of measurement principles and research methodology to make reasoned and appropriate assessment and interpretation of information sources and practice research to support patient/client management decisions fundamental to evidence-based practice.

- Research design and interpretation (e.g., qualitative, quantitative)
- Measurement science (e.g., reliability, validity, common statistical methods)
- Outcome measures (e.g., suitability, applications)
- Data collection techniques (e.g., surveys, direct observation)
- Hierarchy of evidence (e.g., randomized control, case studies, anecdotal observation)

## System Specific Specifications - Physical Therapy

<u>System</u>	<u>Percent of the Examination</u>
Musculoskeletal	18%
Neuromuscular	17%
Cardiovascular/pulmonary	11.5%
Integumentary	7%
Other Systems	16%