



NPTE ®
PT Preview Exam
Answers &
Rationales

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Answer Key Instructions

Each correct answer is highlighted in a purple color below.

A detailed rationale follows each question that describes the correct answer and reasons for the incorrect choices.

References pertaining to the particular question are listed below each rationale and can also be found in the index.

Finally, the NPTE® content category represented by the question is listed below the references. Each question comes from either a body system or a nonsystem. If the question pertains to a body system, it will also have a professional work activity description (PT Examination, Foundations for Evaluation, Differential Diagnosis, & Prognosis, and Interventions). If the question pertains to a nonsystem, the specific nonsystem is listed. This practice examination was designed to simulate the content of the NPTE® in a shortened version, but the percentage of questions from each category is the same as the NPTE®.

If you would like to calculate your score and see your performance in the professional work activity categories and the body systems categories, use this separate [Score Analysis](#) document. Input your incorrect answers and the document will auto-calculate for you.

If you have any comments, questions, or concerns, please send us an email at hello@elevatestrategiespt.com. Please put "Preview Exam" in the subject line. You should receive a response to your inquiry within 24-48 hours.

1. When viewing an oblique radiograph of the spine, a finding of bilateral pars interarticularis defects in the lower lumbar spine is apparent. What diagnosis is MOST relevant to this finding?
 - A) Lumbar shift
 - B) Osteomyelitis
 - C) Ankylosing spondylitis
 - D) Spondylolisthesis

Rationale

A bilateral pars interarticularis defect is characteristic of spondylolisthesis (forward displacement of one vertebra on the vertebra beneath it). This requires an oblique view to best see the defect.

A lumbar lateral shift does not require radiograph imaging for diagnosis and is not defined by pars interarticular defects.

Radiologic characteristics of osteomyelitis include soft tissue swelling 24-48 hours after onset, radiolucent lytic lesions in 7-10 days, and draining sinus tracts.

Ankylosing spondylitis presents with findings of a “bamboo spine” on radiographic imaging, not pars interarticularis defects.

Source

Mckinnis, L.N. (2010). *Fundamentals of Musculoskeletal Imaging*. 3rd Ed. Philadelphia, PA: F.A. Davis Company.

Category

Musculoskeletal Systems

PT Examination

2. A patient demonstrates limitations in wrist extension and ulnar deviation. The therapist elects to use manual therapy techniques to restore motion. What accessory motions should the therapist perform in order to increase the limited motions?
 - A) Volar and ulnar glides of the proximal carpal bones
 - B) Dorsal and ulnar glides of the proximal carpal bones
 - C) Volar and radial glides of the proximal carpal bones
 - D) Dorsal and radial glides of the proximal carpal bones

Rationale

The radiocarpal joint consists of the radius (and ulna) on the proximal row of carpal bones. The radius is a concave surface and the proximal row of carpal bones is a convex surface. Using the concave on convex rules, the therapist needs to perform volar gliding

of the proximal carpal bones to improve wrist extension and radial gliding of the proximal carpal bones to improve wrist ulnar deviation.

Source

Norkin, CC, White, DJ. (2009). *Measurement of Joint Motion: A Guide to Goniometry*. 4th Ed. Philadelphia, PA: F.A. Davis Company. p. 4

Category

Musculoskeletal Systems

Interventions

3. A 53-year-old woman with Cushing's syndrome reports hair and nail thinning, cold intolerance, and muscle cramps. The patient began taking mitotane (Lysodren) yesterday following her doctor's recommendations. According to the patient's diagnosis, she would MOST LIKELY exhibit:
- A) Dark pigmentation of the skin
 - B) A moon face appearance
 - C) Increased metabolic activity and tachycardia
 - D) Bony enlargement of the face, jaw, and hands

Rationale

Cushing's syndrome is hyperfunction of the adrenal gland with increased secretion of cortisol by the adrenal cortex. Common signs and symptoms include a moon face appearance.

Dark pigmentation of the skin is a common sign of adrenal insufficiency (Addison's disease).

Increased metabolic activity occurs with hyperthyroidism (e.g. Graves disease).

Bony enlargement of the face, jaw, and hand is characteristic of acromegaly.

Mitotane (Lysodren) suppresses the adrenal gland by selectively inhibiting adrenocortical function. Mention of the patient's recent medication is distracting information because the question only asks about the characteristics of Cushing's syndrome.

Source

Ciccone, C.D. (2007). *Pharmacology in Rehabilitation*. 4th Ed. Philadelphia, PA: F.A. Davis Company. Pg. 426 and 581-582

Goodman, C.C., Snyder, T.E. (2013). *Differential Diagnosis for Physical Therapists: Screening for Referral*. 5th Ed. St. Louis, MO: Saunders. Pg. 414-415

Category

Metabolic & Endocrine Systems

Foundations for Evaluation, Differential Diagnosis, & Prognosis

4. A therapist is examining a patient with increasing balance deficits. The patient has fallen twice in the past month at home, usually when she is looking over her shoulder while walking. Which of the following outcome measures will BEST assess this patient's fall risk?
- A) 6-Minute Walk Test
 - B) Dynamic Gait Index
 - C) Clinical Test of Sensory Interaction on Balance
 - D) Berg Balance Test

Rationale

Since this patient has specifically fallen when she is turning her head and walking (when she is looking over her shoulder while walking), the Dynamic Gait Index is the best method for assessment. The DGI specifically assesses head turning while walking, is a known outcome measure for assessing gait, balance, and fall risk, and it is sensitive in predicting the likelihood for falls with older adults.

The 6-Minute Walk Test measures cardiovascular abilities and functional mobility but does not specifically address fall risk.

While the CTSIB and Berg Balance tests also measure balance and fall risk, neither test involves specifically turning the head during dynamic gait and are therefore not the BEST outcome measure for this patient.

Source

O'Sullivan S.B., Schmitz T.J., Fulk, G.D. (2014). *Physical Rehabilitation*. 6th Ed. Philadelphia, PA: F.A. Davis Company.

Physiopedia. (n.d.). *Dynamic Gait Index*. https://www.physio-pedia.com/Dynamic_Gait_Index.

Category

Neuromuscular Systems

PT Examination

5. A physical therapist completed an examination of a patient with a recent diagnosis of a neurological disease. Documentation states the patient demonstrated hyperreflexia and an average of 2 on the Modified Ashworth Scale for all muscles. The patient had intact and normal sensation but progressing weakness with his functional activities, including standing up out of a chair. The therapist further noted that the patient complained of “twitching” in his leg muscles. Based on the therapist’s notes, the MOST LIKELY prognosis for this patient is:
- A) Full remission of the disease since it is a self-limiting diagnosis
 - B) Progressive worsening of the disease over the next 25 years, ending in fatality
 - C) Continued presentation of signs and symptoms without progression of the disease
 - D) Progressive worsening of the disease over the next 2-5 years, ending in fatality

Rationale

Based on the description from the therapist’s notes, it is most likely that the patient’s diagnosis is amyotrophic lateral sclerosis (ALS). Both UMN and LMN signs are present and the patient is experiencing motor-related problems (sensation is normal and intact).

Differential diagnoses such as Guillain-Barré, multiple sclerosis, and myasthenia gravis do not meet both criteria (UMN and LMN signs and motor-only involvement). ALS is a fatal disease, with a median survival of 3 years. Progression of the disease leads to respiratory failure, which is usually the cause of fatality.

Source

Armon, C. (2018, June 14). *Amyotrophic lateral sclerosis*. Retrieved from Medscape. <https://emedicine.medscape.com/article/1170097-overview#a6>.

Goodman, C.C., Snyder, T.E. (2013). *Differential Diagnosis for Physical Therapists: Screening for Referral*. 5th Ed. St. Louis, MO: Saunders.

Lomaglio, M. *Neuromuscular I Concepts and Examination*. [Course Notes - PDF].

Category

Neuromuscular Systems

Foundations for Evaluation, Differential Diagnosis, & Prognosis

6. An 8-year-old boy complains of nonspecific, dull pain around his hip and groin area on the right side. He has an intermittent limp that gets worse with exertion. The A-P radiograph view of the hip reveals a radiolucent crescent image at the femoral head. This is MOST indicative of which condition?
- A) Legg-Calvé-Perthes disease
 - B) Slipped capital femoral epiphysis
 - C) Osteomyelitis of the hip
 - D) Osteochondritis dissecans of the hip

Rationale

A radiolucent crescent sign at the femoral head is characteristic of Legg-Calvé-Perthes disease, which is avascular necrosis of the femoral head. This crescent can appear as early as 4 weeks post injury and it represents collapse of the subchondral necrotic bone at the femoral head. Clinical characteristics of the disease include antalgic gait, diffuse pain around the groin, hip, thigh, and knee, and shortening of the involved extremity that leads to decreased internal rotation and abduction of the hip.

Slipped capital femoral epiphysis tends to occur a little older in males (10-17 years old). It is when the growth plate is damaged, causing the femoral head to move (slip) with respect to the femoral neck and rest of the femur. They tend to have a gradual onset of limping that is slow. A radiograph will show positive displacement of the femoral epiphysis but will not show a crescent sign as would be seen for Legg-Calve-Perthes disease.

Source

Harris, G.D. (2020, February 6). *Legg-Calve-Perthes disease clinical presentation*. Retrieved from Medscape. <https://emedicine.medscape.com/article/1248267-clinical>

Mckinnis, L.N. (2010). *Fundamentals of Musculoskeletal Imaging*. 3rd Ed. Philadelphia, PA: F.A. Davis Company. Pg. 358.

The Manual Therapy Institute. (2016). *Differential diagnosis: Home study course*. [Course Notes - PDF].

Category

Musculoskeletal Systems

Foundations for Evaluation, Differential Diagnosis, & Prognosis

7. A therapist is working in an acute care facility in a single negative pressure room. Which of the following is the MOST correct sequence for doffing personal protective equipment when teaching a patient seated exercises if the patient has been diagnosed with tuberculosis?
- A) Gloves, gown, surgical mask
 - B) Gloves, gown, N95 respirator
 - C) Gloves, N95 respirator
 - D) Gloves, face shield, gown, N95 respirator

Rationale

A patient diagnosed with tuberculosis requires airborne precautions, which are more intense than droplet precautions. Airborne precautions include wearing an N95 or higher level respirator, eye covering, gloves, and gown, and if possible, isolating the patient in a negative pressure airborne infection isolation room. In this case the therapist will need to don an N95 respirator. It is also advisable to be wearing goggles or a face shield when doing aerosol-generating procedures (e.g. exercise) with suspected or proven infections transmitted by respiratory droplets and aerosol particles. The doffing procedure when wearing all these types of PPE is:

DOFF:

1. Gloves
2. Face shield or goggles
3. Gown
4. Mask or respirator
5. Hand hygiene

Source

Centers for Disease Control and Prevention. (2007). *Recommendations for application of standard precautions for the care of all patients in all healthcare settings. Appendix A, Table 4: Standard precautions recommendations.* <https://www.cdc.gov/infectioncontrol/guidelines/isolation/appendix/standard-precautions.html>.

Chadwick, L. (2020, April 10). *Understanding the difference between airborne and droplet precautions.* Retrieved from Functional Pathways: <https://fprehab.com/2020/04/10/understanding-the-difference-between-airborne-and-droplet-precautions/>.

Physiopedia. (n.d.). *Personal Protective Equipment.* [https://www.physio-pedia.com/Personal_Protective_Equipment_\(PPE\)](https://www.physio-pedia.com/Personal_Protective_Equipment_(PPE)).

Category

Nonsystems
Safety & Protection

8. During a neuromuscular examination, the physical therapist tests non-equilibrium coordination. Alternating finger-to-nose test triggers the onset of jerky, uncontrolled, and ballistic movements. The patient repeatedly misses his nose and the therapist's finger. What term BEST describes the type of movement the therapist observed?
- A) Dysdiadochokinesia
 - B) Athetosis
 - C) Chorea
 - D) Action tremor

Rationale

The patient appears to be demonstrating chorea, which is characterized by rapid, jerky movements that can be ballistic in nature and uncontrollable. This is associated with basal ganglia lesions (e.g. Parkinson's or Huntington's diseases).

Dysdiadochokinesia is a term used for impairment of alternating/reciprocal motions and is involved with cerebellar pathologies.

Athetosis describes slow, twisting, snake-like movements and is associated with cerebral palsy.

An action tremor is a tremor that continues with movement and is often involved in postural tremors, often seen when muscles are used to maintain an upright posture against gravity.

Source

O'Sullivan S.B., Schmitz T.J., Fulk, G.D. (2014). *Physical Rehabilitation*. 6th Ed. Philadelphia, PA: F.A. Davis Company. p. 213-214

Category

Neuromuscular Systems
PT Examination

9. Which of the following regulations or departments is responsible for establishing Early Intervention Programs (EIP) for physical therapy, occupational therapy, and speech therapy for children with developmental delays?
- A) IDEA Act
 - B) OSHA Guidelines
 - C) HIPAA Act
 - D) CMS Agency

Rationale

Early Intervention Programs (EIPs) are services provided to children with developmental delays. It helps outline the child's needs, including providing appropriate adaptive equipment for the child to function in school.

IDEA is the Individuals with Disabilities Education Act. Established in 1975, it provides statutes and guidelines for special education services, especially in school districts, which includes the EIPs.

OSHA is the Occupational Safety and Health Administration, which is a division of the U.S. Health Department. OSHA helps regulate safety of employees and standards of working conditions.

HIPAA is the Health Insurance Portability and Accountability Act. HIPAA regulates an individual's right to continuity and information security in healthcare.

CMS is the Center for Medicare and Medicaid Services. This federal agency develops rules and regulations on a federal level, including regulating social security insurance, ethical billing, and accreditations for clinical operations.

Source

O'Sullivan, S, Siegelman, R. (2015). *2016 National Physical Therapy Examination Review & Study Guide*. 19th Ed. TherapyEd.

Category

Nonsystems

Professional Responsibilities

10. A patient with a stage II ulcer on the left lateral malleolus is referred for physical therapy. During the initial evaluation, the patient's resting heart rate is 95 bpm. The patient exhibits intermittent claudication with ambulation and the ankle-brachial index registers 0.47. Provided this information, the therapist's NEXT BEST step is to:
- A) Make a diagnosis of claudication and note it in the patient's medical record
 - B) Repeat the ankle-brachial index after exercise testing
 - C) Refer to a vascular specialist for assessment of a state of severe occlusion
 - D) Refer the patient back to the primary physician for further testing

Rationale

Based on the ankle-brachial index (ABI), the patient should be referred to a vascular specialist for further assessment, because anything below 0.50 is considered a severe occlusive state and the patient needs attention.

A claudication state is classified by an ABI of 0.60-0.90.

In this case, there is NO need for exercise testing (exercise testing is only performed for ABIs between 0.60-0.90).

It would not be as appropriate to refer the patient back to the primary physician, since the appropriate testing has already been completed to refer the patient to a vascular specialist. The primary physician would only make the same referral and time would be wasted. It is also not appropriate to refer back for inspection of the ulcer since we already know the stage of the ulcer.

Source

O'Sullivan, S, Siegelman, R. (2015). *2016 National Physical Therapy Examination Review & Study Guide*. 19th Ed. TherapyEd.

Category

Cardiopulmonary Systems
PT Examination

11. The MOST appropriate intervention for a 7-year-old child with Duchenne's muscular dystrophy is:

- A) Gait training with bilateral knee-ankle-foot orthotics (KAFOs)
- B) Strengthening of the plantarflexors and stretching of the hip flexors
- C) Strengthening of the knee flexors and stretching of the hip flexors
- D) Strengthening of the plantarflexors and abdominal muscles

Rationale

Duchenne's muscular dystrophy (MD) is a progressive genetic condition causing muscle weakness. There is a steady decline of muscle strength between ages 6-11 that often requires knee-ankle-foot orthotics for ambulation. Most children with MD are wheelchair bound by age 12.

Muscle strengthening is contraindicated in the condition due to the destruction of muscle cells. It is better to rely on active range of motion (AROM), flexibility exercises, and functional activities to maintain strength for patients with MD. Therefore, gait training is the most appropriate activity for this patient.

Source

Do, T.T. (2020, August 17). *Muscular dystrophy treatment & management*. Retrieved from Medscape. <https://emedicine.medscape.com/article/1259041-treatment#showall>.

Physiopedia. (n.d.). *Duchenne Muscular Dystrophy*. https://www.physio-pedia.com/Duchenne_Muscular_Dystrophy.

Category
Musculoskeletal Systems
Interventions

12. What type of incontinence would a therapist want to develop a voiding schedule for?

- A) Urge incontinence
- B) Stress incontinence
- C) Functional incontinence
- D) Overflow incontinence

Rationale

Timed voiding is used to treat the symptom of urinary urgency (a sudden compelling desire to pass urine). This is usually a sign and/or indication occurring with urge incontinence.

For stress incontinence, the pelvic floor muscles need to be strengthened.

For functional incontinence, the function that inhibits the person from getting to the bathroom needs to be addressed and trained.

For overflow incontinence, relaxation training and/or medical help and further therapy is usually required to address blockages or any neuromuscular issues (e.g. spinal cord injury causing an acontractile bladder).

Source

Continence Matters. (2017). *Incontinence: Timed voiding and bladder training*. <https://continencematters.com/health-information/incontinence-and-prolapse/timed-voiding-and-bladder-training/#:~:text=Timed%20Voiding%20and%20Bladder%20Training,with%20actual%20leakage%20of%20urine.>

Category
Genitourinary System
Foundations for Evaluation, Differential Diagnosis, & Prognosis

13. To effectively implement manual lymphatic drainage on a patient post-radical mastectomy with stage 2 lymphedema, the physical therapist should:
- A) Perform drainage from distal segments to proximal segments
 - B) Perform drainage from proximal segments to distal segments
 - C) Apply compression garments during manual lymphatic drainage to assist fluid movement
 - D) Position the bed with the feet elevated during manual lymphatic drainage

Rationale

Manual lymphatic drainage (MLD) should first focus on decongesting the proximal areas of the body to clear central collecting vessels. Draining fluid from distal to proximal will further overload the lymph nodes that are already dysfunctional and is therefore not effective for MLD.

Compression garments should be applied after MLD depending on the phase of rehabilitation (garment usage is not appropriate until the end of phase I lymphedema management).

The bed positioning does not have an effect on fluid drainage for the upper extremity in stage 2 lymphedema.

Source

Kisner, C., Colby, L.A. (2007). *Therapeutic exercise: Foundations and techniques*. 5th Ed. Philadelphia, PA: F.A. Davis Company. pg. 843

Category

Lymphatic System Interventions

14. A pediatric patient with a 7-year history of cystic fibrosis presents to the clinic for evaluation and treatment. His FEV₁/FVC ratio is 60% and he has a chronic cough, sputum production, some wheezing, and finger clubbing. With palpation and percussion testing the therapist finds the posterior segments of the upper lobes are the most congested. Which of the following interventions will BEST address the patient's impairments and allow him to manage his condition independently?
- A) Performing pursed-lip breathing
 - B) Postural drainage in sitting with the patient folded forward at a 30° angle with percussion to the upper scapula area followed by shaking and vibration for sputum clearance
 - C) Performing the active cycle of breathing
 - D) Postural drainage in the prone position with the foot of the bed elevated 20° with percussion to the middle back area

Rationale

Cystic fibrosis is usually an obstructive disease, which is further evidenced with the low FEV₁/FVC ratio (anything below 70% is obstructive), wheezing, sputum production, and finger clubbing. The biggest issue with cystic fibrosis is sputum and mucus production and adherence to the bronchi and airways. The best intervention to INDEPENDENTLY address the mucus clearance is the active cycle of breathing.

Pursed-lip breathing is a good intervention for obstructive patients who are having difficulty breathing. However, in this case the sputum should be removed before we can move onto breathing exercises.

Postural drainage will also address sputum production, especially with percussion, shaking, and vibration, but this is not something the patient can do independently at home.

Source

O'Sullivan, S, Siegelman, R. (2015). *2016 National Physical Therapy Examination Review & Study Guide*. 19th Ed. TherapyEd.

Category

Cardiopulmonary Systems
Interventions

15. A physical therapist is doing a chart review for her afternoon patient. The following information is provided: "Patient history includes recent cerebrovascular accident. Upon manual muscle testing, patient demonstrates 2+/5 of the left quadriceps, hamstrings, and ankle dorsiflexors. Light touch and pinprick sensations are intact and normal". Based on this information, what artery is MOST LIKELY affected?
- A) Right anterior cerebral artery
 - B) Left anterior cerebral artery
 - C) Right middle cerebral artery
 - D) Left posterior cerebral artery

Rationale

Based on the fact that our lower extremities are affected (weakness in quadriceps, hamstrings, and ankle dorsiflexors), we know this is more likely to be an anterior cerebral artery stroke. Our anterior cerebral artery runs in between our cerebral hemispheres - basically in the longitudinal fissure - which is exactly where the lower extremity homunculus sits. Therefore, the anterior cerebral artery characteristically affects the LEs more than the UEs. Then, it would be our RIGHT anterior cerebral artery because we are told that the left muscles are affected, and we know that we see CONTRALATERAL hemiparesis/hemiplegia for an anterior cerebral artery infarct.

The answer cannot be a left artery stroke due to the fact the symptoms are on the right side of the body.

The right middle cerebral artery would show more UE and face involvement than LE and is often accompanied by other signs and symptoms besides hemiparesis/hemiplegia due to the fact that it supplies a significant amount of cortex (almost the entire lateral aspect of the cortex).

Source

Blumenfeld, H. (2010). *Neuroanatomy through Clinical Cases*. 2nd Ed. Sunderland, MA: Sinauer Associates.

Category

Neuromuscular Systems

Foundations for Evaluation, Differential Diagnosis, & Prognosis

16. A patient diagnosed with adhesive capsulitis should be expected to have the GREATEST limitation in which direction with accessory motion testing?
- A) Inferior glide of the humeral head
 - B) Superior glide of the humeral head
 - C) Posterior glide of the humeral head
 - D) Anterior glide of the humeral head

Rationale

In adhesive capsulitis, the most affected tissue is the capsule. Patients often present with a capsular pattern of the glenohumeral joint (GHJ). The capsular pattern of the GHJ is external rotation > abduction > internal rotation. Since external rotation is the most limited motion, an anterior glide should theoretically be the most limited accessory motion (anterior glide correlates with external rotation). However, the practice pattern guidelines and research indicate the BEST mobilization for Adhesive Capsulitis is actually a posterior glide.

An inferior glide correlates with abduction (and some flexion).

A superior glide correlations with adduction.

Source

Magee, D.A. (2014). *Orthopedic Physical Assessment*. 6th Ed. St. Louis, MO: Saunders. Pg. 37

Category

Musculoskeletal Systems

Foundations for Evaluation, Differential Diagnosis, & Prognosis

17. A 66-year-old female patient has hypertension and a history chronic smoking. The patient complains of bilateral calf pain. When the therapist elevates her leg, the pain increases and pallor of the forefoot results. On closer inspection, the therapist notices the legs are cool to the touch and the skin is dry. These signs are MOST indicative of:
- A) Diabetic angiopathy
 - B) Chronic venous insufficiency
 - C) Arterial insufficiency
 - D) Intermittent claudication

Rationale

Signs and symptoms of arterial insufficiency include intermittent claudication (bilateral calf pain with exercise), pain and pallor of the leg on elevation, dry skin changes, and coolness of the extremity. Age over 60 years and smoking are risk factors for arterial insufficiency.

Diabetic angiopathy is accelerated atherosclerosis and neuropathy due to inappropriate elevation of blood glucose levels and may lead to diabetic ulcers, gangrene, or amputation.

Venous insufficiency is characterized by edema, pain relief with leg elevation, hemosiderin staining (dark, cyanotic, thickened skin), and superficial pain along the course of the major veins (e.g. greater and lesser saphenous veins).

Intermittent claudication is a sign of arterial insufficiency, but this is not a complete answer since the rest of the signs and symptoms in the question describe the disease arterial insufficiency.

Source

O'Sullivan, S, Siegelman, R. (2015). *2016 National Physical Therapy Examination Review & Study Guide*. 19th Ed. TherapyEd.

Category

Cardiopulmonary Systems
PT Examination

18. Referred pain to the right shoulder and scapula area MOST LIKELY results from:
- A) Stomach
 - B) Gallstones
 - C) Kidney
 - D) Diaphragm

Rationale

Referred pain to the right shoulder and scapula area is often due to liver and/or gallbladder issues, especially because these sit in the right abdominal quadrants.

The stomach usually refers pain to the mid back and/or to the inferior sternum.

The kidney usually refers pain to the lateral lumbar area.

The diaphragm usually refers pain to the neck and/or left upper trapezius area.

Source

Netter, F.H. (2014). *Atlas of Human Anatomy*. 6th Ed. Philadelphia, PA: Saunders. Netter Visceral Referred Pain Diagram. BP (bonus plate) 13

Category

Gastrointestinal System

Foundations for Evaluation, Differential Diagnosis, & Prognosis

19. A physical therapy assistant is treating a patient with a lumbar disc dysfunction at L5/S1. In order to appropriately set up lumbar traction, the PTA should designate which of the following settings?

- A) 45-60 degrees of hip flexion to target L5/S1 with 25% body weight
- B) 75-90 degrees of hip flexion to target L5/S1 with 25% body weight
- C) 45-60 degrees of hip flexion to target L5/S1 with 50% body weight
- D) 75-90 degrees of hip flexion to target L5/S1 with 50% body weight

Rationale

Lumbar traction needs to be 45-60 degrees for L5/S1. 25% of body weight is used for disc dysfunctions.

75-90 degrees of hip flexion would target higher lumbar segments. 50% of body weight is for joint separation.

Source

O'Sullivan, S, Siegelman, R. (2015). *2016 National Physical Therapy Examination Review & Study Guide*. 19th Ed. TherapyEd.

Category

Nonsystems

Therapeutic Modalities

20. Postural observation of the left shoulder girdle in an adolescent with shoulder pain, reveals the left scapula sitting in downward rotation. During shoulder elevation, the scapula upwardly rotates 40 degrees. The therapist also measures 120 degrees of flexion at the glenohumeral joint during shoulder elevation. The therapist determines that the scapular rotation is due to a shortened muscle. Which muscles would the therapist MOST LIKELY choose to stretch in order to restore scapular positioning?
- A) Serratus anterior and sternocleidomastoid
 - B) Posterior scalenes and pectoralis minor
 - C) Rhomboid major and levator scapula
 - D) Lower trapezius and serratus anterior

Rationale

Since the scapula is sitting in downward rotation due to a shortened muscle, the downward rotators must be short. The only answer with both downward rotator muscles listed is C.

The serratus anterior and the lower trapezius muscles are responsible for upward rotation, the sternocleidomastoid and posterior scalene muscles do not attach to the scapula, and the pectoralis minor muscle mainly does anterior tilting of the scapula (although it does play a role in downward rotation of the scapula too).

Source

Magee, D.A. (2014). *Orthopedic Physical Assessment*. 6th Ed. St. Louis, MO: Saunders.

The Manual Therapy Institute. (2016). *Intro Upper Extremity*. [Course Notes - PDF].

Category

Musculoskeletal Systems
PT Examination

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3. Blumenfeld, H. (2010). *Neuroanatomy through Clinical Cases*. 2nd Ed. Sunderland, MA: Sinauer Associates.
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