

1. A patient had a bone-patellar tendon-bone anterior cruciate ligament (ACL) reconstruction without meniscal damage two weeks ago. The patient is now ambulating with a hinged brace without an assistive device. Active range of motion is from 0 to 90 degrees. The next immediate goal is the facilitation of normalized lower extremity muscle function. Which of the following activities will best achieve this goal?

- (A) Electrical muscle stimulation to the quadriceps
- (B) Single-leg press
- (C) Straight-leg raises
- (D) Wall slide partial squats

Answer: D

2. Clinically, a person with central cord injury will typically

- (A) have intact sensation
- (B) have more difficulty climbing stairs than tying shoes
- (C) have more difficulty dressing than walking
- (D) propel a wheelchair with one arm and one leg

Answer: C

The following vignette applies to the next 2 items.

A 4-year-old boy with a diagnosis of spastic quadriplegia is referred to physical therapy for assessment of functional needs. He has normal cognitive skills. On examination, the physical therapist observes excessive internal rotation of the hips and forward trunk; there is increased stiffness of the lower extremities, with the right side more involved than the left. He also demonstrates a lack of heel strike during stance. The therapist notes that the boy is able to walk with an anterior walker; however, it takes him 15 minutes to walk 100 feet.

3. Which of the following is the most appropriate mobility device for this child?

- (A) Lofstrand crutches
- (B) Manual wheelchair
- (C) Posterior walker
- (D) Power wheelchair

Answer: D

4. One year ago, the family declined special education services and chose a private school out of district. They are now requesting special education services at their local school. Which of the following is the most appropriate assessment tool for this child in order to design a current individualized education plan (IEP)?

- (A) Hawaii Early Learning Profile
- (B) Miller Assessment for Preschoolers
- (C) Movement Opportunities via Education Curriculum
- (D) School Function Assessment

Answer: C

5. The use of electromyographic (EMG) biofeedback training to bring the normally unconscious control of specific muscles under conscious control is analogous to which of the following stages of motor learning?
- (A) Associative
 - (B) Autonomous
 - (C) Cognitive
 - (D) Transitive

Answer: C

6. A 15-year-old boy is referred to a physical therapist by an athletic trainer. He reports a one-month history of a vague ache in his hip, thigh, and knee. He is active and plays sports, but he does not recall a specific episode of injury. On examination, the therapist notes a slight limp, mild weakness of the hip abductors, and considerably limited internal rotation of the hip. Given his symptoms, the therapist should suspect which of the following conditions?
- (A) Femoral neck stress fracture
 - (B) Legg-Calvé-Perthes disease
 - (C) Meralgia paresthetica
 - (D) Slipped capital femoral epiphysis

Answer: D

7. A 32-year-old maintenance worker is referred to physical therapy with a diagnosis of costochondritis. He reports falling off a step stool three months ago and hitting his right midback against an iron railing. Upon examination, the physical therapist finds that the right sixth rib is anterior when compared with adjacent ribs. There is exquisite tenderness at the right sixth costochondral junction. Which of the following manual procedures is most appropriate for this patient?
- (A) A high-velocity, small-amplitude procedure to promote anterior glide of the right sixth rib
 - (B) A high-velocity, small-amplitude procedure to promote left rotation of T6
 - (C) A rib mobilization procedure using isometric contractions of the right pectoralis minor
 - (D) A rib mobilization procedure using isometric contractions of the right serratus anterior

Answer: D

The following vignette applies to the next 3 items.

A 69-year-old woman with Parkinson disease of seven years' duration has been treated successfully since onset with levodopa/carbidopa, but her rigidity and tremor have been worsening for the last six months. She also reports difficulty with shortness of breath and falling.

8. The most likely cause of this patient's dyspnea on exertion is

Available To: PT-PRAC

- (A) anxiety reactions
- (B) deconditioning
- (C) drug toxicity
- (D) normal age-related changes in the lung

Answer: B

9. Which of the following gait deviations is most likely to be observed in this patient?

- (A) Antalgic limp bilaterally
- (B) Bilaterally symmetrically shortened steps
- (C) Genu recurvatum in single-limb support
- (D) Symmetric circumduction in the swing phase

Answer: B

10. Which of the following is the most appropriate intervention?

- (A) Communicate with a physician regarding medication effects
- (B) Establish a free-weight exercise program
- (C) Fabricate night splints to counteract the increasing rigidity
- (D) Refer to a cardiologist because of shortness of breath

Answer: A

11. Which of the following sets of findings is most likely in a patient with anterior horn cell disease?

- (A) Muscle atrophy, fasciculations, normal motor and sensory nerve conduction velocities, and giant motor unit potentials (MUPs) on electromyography (EMG)
- (B) Muscle atrophy, giant polyphasic MUPs on EMG, and stocking glove sensory loss
- (C) Muscle atrophy, slowed motor and sensory nerve conduction velocities, and giant polyphasic MUPs on EMG
- (D) Slowed motor nerve conduction velocity and MUPs with small amplitude on EMG

Answer: A

12. A 35-year-old man has heel pain that is worse in the morning and most severe with the first few steps out of bed. The pain has been increasing over the past three months; it decreases during the morning after walking but recurs after about 20 minutes of jogging. Physical examination findings show:

Static posture:	2 degrees of calcaneal inversion when measured in subtalar joint neutral
Gait observation:	Excessive midtarsal pronation at terminal stance and preswing
	2 degrees of total calcaneal eversion from neutral
	5 degrees of total calcaneal inversion from neutral
	0 degrees of talocrural dorsiflexion
	45 degrees of talocrural plantar flexion
	65 degrees of first metatarsophalangeal (MTP) extension
	45 degrees of first MTP flexion
	Straight-leg raise combined with ankle plantar flexion and inversion reproduces the patient's heel pain
Resistive tests:	3+/5 gastrocnemius soleus
	3/5 fibularis (peroneus) longus; reproduces heel pain
	Other muscles: 5/5 pain free
Palpation:	Exquisite tenderness over plantar surface of cuboid

This patient's abnormal pronation is likely a compensation for diminished

- (A) first MTP extension
- (B) motor control of the gastrocnemius soleus
- (C) motor control of the tibialis anterior
- (D) talocrural dorsiflexion

Answer: D

The following vignette applies to the next 2 items.

A physical therapy student completing his final eight-week clinical experience on an acute cardiopulmonary rotation has difficulty remembering the effects of beta-blocker medications.

13. This is most likely a deficit in which of the following learning domains?

- (A) Affective
- (B) Cognitive
- (C) Critical thinking
- (D) Psychomotor

Answer: B

14. Which of the following is the LEAST appropriate element of feedback to provide to this student?

- (A) Collegial
- (B) Reciprocal
- (C) Remedial
- (D) Subjective

Answer: D

15. When screening a patient with amyotrophic lateral sclerosis to determine if there is a need for physical therapy intervention, the therapist should assess for

- (A) extremity weakness and impaired respiratory function
- (B) extremity weakness and joint pain
- (C) extremity weakness and sensory loss
- (D) impaired respiratory function and joint pain

Answer: A

16. A 40-year-old woman with a BMI of 40 is referred to physical therapy by her colorectal surgeon for treatment of levator ani spasms. She reports a three-month history of fecal incontinence occurring three or four times per week. She also has rectal pain with sitting and defecation. She rates the pain on defecation as 10 out of 10. Physical examination shows minimal tenderness of the pelvic floor muscles when palpated vaginally. Severe tenderness and palpable spasm are noted on rectal examination. She is unable to contract the pelvic floor muscles. Which of the following is the most appropriate initial intervention?

- (A) Diaphragmatic breathing for relaxation
- (B) Electrical stimulation to the pelvic floor musculature
- (C) Intravaginal massage
- (D) Pelvic floor strengthening exercises

Answer: A