

End Back & Neck Pain

CORRESPONDENCE EDUCATION PROGRAM #129.

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End Back and Neck Pain Course Objectives

After completing the End Back and Neck Pain course, the participant will:

1. Understand the basic anatomy and function of the spine
2. Understand the origin of spinal pain and the symptoms that communicate what structures are most likely contributing to your spinal pain
3. Understand postural, adaptive shortening, and derangement syndromes
4. Recognize the psychological complications of back and neck pain
5. Help empower clients to find and select the physicians who will best be able to help
6. Know when a client should see a physician and recognize when the situation is urgent and when it is not
7. Help the client to understand what a competent physician should do when taking a history and doing a physical exam
8. Help clients towards knowing what questions to ask their health care provider regarding the cause, treatment, and prevention of pain
9. Understand when medication is recommended by the physician
10. Understand when appropriate stretches, exercise, and conditioning activities are needed



End Back and Neck Pain Course Examination

For each of the following questions, circle the letter of the answer that best answers the question.

1. What percentage of the population will have at least one serious episode of back pain in their lives?
 - A. 80%
 - B. 95%
 - C. 7%
 - D. 84%

2. Neck pain makes up what percentage of episodes?
 - A. 47%
 - B. 50%
 - C. 70%
 - D. 22%

3. What is the name of the surgery that opens up the foramen in order to relieve nerve pain?
 - A. Foramenotomy
 - B. Pediotomy
 - C. Laminectomy
 - D. Nerve stripping

4. The distal end of the spinal nerve is called the:
 - A. Disc
 - B. Spinal equina
 - C. Cauda equina
 - D. Facette

5. What is spinal stenosis?
 - A. Narrowing of the lamina
 - B. Narrowing of the spinal canal
 - C. Hardening and fusion of the spine
 - D. Damage to the pedicle

6. Which is not one of the types of "pain-provoking stimuli"
 - A. Temperature
 - B. Swelling
 - C. Redness
 - D. Pressure

7. Which area of the brain helps us to decide the severity of our symptoms?
 - A. Limbic
 - B. Thalamus
 - C. Cerebellum
 - D. Cerebral cortex
8. Which of the following does not indicate the client should see a spine specialist?
 - A. Calf cramps after walking a certain distance, such as one block
 - B. Pain more in the arm or leg rather than the spine
 - C. Leg weakness after walking a certain distance
 - D. Weakness in the painful extremity
9. Which statement is false concerning postural syndrome?
 - A. The pain is local
 - B. It typically affects those who are 30 or younger
 - C. It affects the cervical, thoracic, and lumbar area equally
 - D. The pain is a constant and radiating
10. Which of the following is the better exercise for those with postural syndrome?
 - A. Biking
 - B. Jogging
 - C. Seated row for traps and rhomboids
 - D. Golf
11. For those with lower back symptoms for postural syndrome, which of the following is not a muscle of importance to strengthen?
 - A. Lower rectus abdominus
 - B. Lower back
 - C. Gluteal muscles
 - D. Lateral hip muscles
12. Which is not a common condition affecting the spinal discs?
 - A. Herniations
 - B. Stenosis
 - C. Annular tears
 - D. Bulges
13. Which of the following is not a symptom of discogenic origin?
 - A. Each episode improves over time
 - B. Each episode lasts longer than the previous
 - C. It begins with mild stiffness
 - D. Discomfort may or may not radiate down a limb
14. What is Cloward's sign?
 - A. A herniated disc in the cervical vertebral area due to postural deviations
 - B. An orthopedic test designed to evaluate nerve root damage
 - C. Radiating pain down the left arm when the head is turned to the right
 - D. A fists size ache between the scapula
15. For those with derangement syndrome, which position is typically the most comfortable?
 - A. Standing
 - B. Leaning forward while sitting
 - C. Sitting
 - D. Lying on your side

16. Which of the following is not secondary to disc derangement generally occurring later in life?
- A. Spinal stenosis
 - B. Joint arthropathy
 - C. Spondylolethisis
 - D. Degenerative disc disease
17. What is adaptive shortening?
- A. Progressive pain
 - B. Changes in posture
 - C. Hypermobility
 - D. Functional loss of motion
18. Those with postural syndrome should focus on what type of remedy?
- A. Flexibility
 - B. Strength training
 - C. Rest
 - D. Ice
19. Which type of back and neck pain is eased by rest and extension activities?
- A. Disc pain
 - B. Spinal stenosis
 - C. Facette pain
 - D. Nerve radicular pain
20. When pain radiates to a distal location such as the hand or foot, it is often due to:
- A. Spinal stenosis
 - B. Psychological pain
 - C. A nerve root issue
 - D. Muscle strain with nerve compression
21. Nerve pain is typically worsened by all of the following EXCEPT:
- A. Twisting
 - B. Bending
 - C. Rest
 - D. Lifting
22. Injury to sensory fibers elicits what type of symptoms?
- A. Weakness
 - B. Cramping
 - C. Pinpointed pain
 - D. Pins and needles or burning
23. When the spinal nerve roots of the cauda equina are injured what becomes impaired?
- A. Gastrocnemius
 - B. Bowel and bladder
 - C. The arm and hand
 - D. Posterior thigh
24. Which type of injury never radiates below the knee and rarely below the gluteals?
- A. Disc
 - B. Facette
 - C. Ligament
 - D. Myotome

25. What type of activities can more easily injury the facettes?
- Twisting
 - Hyperextension
 - Flexion
 - Lateral flexion
26. Which type of injury, although rare, are the most limiting?
- Disc
 - Facette
 - Ligaments and tendons of the spine
 - Stenosis
27. All of the following are true concerning ligament pain EXCEPT:
- Dehydration causes the disc to shrink
 - When the disc space is normal, the ligaments relaxed
 - Disc dehydration begins around age 25
 - When the ligaments become less taunt, the size of the spinal canal shrinks
28. What percentage of spinal fractures are in postmenopausal women?
- 100%
 - 50%
 - 80%
 - 75%
29. Which neurotransmitter is painful?
- Neuradenaline
 - Cytokinis
 - Gabamine
 - Serotonin
30. Why is a good night's sleep important for pain?
- When lying in bed, the body is stabilized, thus decreasing movement and pain
 - Sleep takes the pressure off the back
 - Sleep increases cytokinis levels which in turn increases pain tolerance
 - Sleep increases serotonin levels which in turn increases pain tolerance
31. All of the following are useful for acute pain EXCEPT:
- Heat application
 - Medication
 - Cervical pillow
 - Cold application
32. How long should your client apply a gel ice pack?
- 30-40 minutes
 - 15-20 minutes
 - 5-10 minutes
 - 60 minutes
33. What is the length of time to have pain before it is defined as "chronic"?
- 3 months
 - 3 weeks
 - 1 month
 - 72 hours

34. How long should your client wait in between hot pack applications?
- At least 3 days
 - At least 15 minutes
 - At least 45 minutes
 - At least 24 hours
35. Which protocol for postural exercises is incorrect?
- Perform each activity for 2 minutes
 - Less is best
 - Commit to 3-4 times per week
 - More exercises is fine
36. Which of the following is incorrect technique when performing the partial curl-up?
- Arms are up towards the ceiling
 - Keep the knees straight
 - Maintain the core muscle contractions as you lower
 - Reach the chin towards the ceiling
37. Which of the following exercise is usually difficult or a problem for most people?
- Quadruped transverse abdominals
 - Partial curl-up with twist
 - Bridging
 - Unsupported bracing
38. Which of the following exercises is considered an advanced exercise?
- Sumo position arm lift
 - Modified plank
 - Prone transverse abdominals with leg lift
 - Seated arm and left lift
39. What is the difference between the levator stretch and the trapezius stretch?
- The neck is rotated for the levator scapula and is not for the trapezius
 - The arm of the side being stretched is placed on the head for the trapezius stretch
 - The arm placed behind your back is held up for the levator stretch
 - The neck is rotated for the trapezius and is not for the levator scapula
40. What population should avoid the lower trunk rotation stretch?
- Derangement syndrome
 - Total hip replacements
 - Osteopenia
 - Those with adaptive shortening syndrome
41. Which statement is false for self-care activities for those with derangement syndrome?
- It typically affects those over age 50
 - Pain tends to be one-sided
 - Sitting makes the pain worse
 - Walking makes the pain better
42. Which of the following is not considered to be a derangement syndrome?
- Spondylolysis
 - Spondylolisthesis
 - Stenosis
 - Compression fractures

43. When working with clients who have neck, mid-scapular or arm symptoms due to discogenic conditions, what movement should you begin with for their activities?
- A. Upper trap stretches
 - B. Neck flexion
 - C. Neck retraction
 - D. Chest stretches
44. For lumbar discogenic conditions that fit the derangement syndrome descriptions, with what exercises should you begin?
- A. Supine extension
 - B. Prone extension
 - C. Gluteal stretches
 - D. Hamstring stretches
45. After a long drive or sitting for a long time, the general rule is to:
- A. Perform extension exercises every 2-3 hours
 - B. Perform 3-5 repetitions
 - C. Perform the exercises at the end of your day or drive
 - D. Perform flexion exercises every 2-3 hours
46. A sign of progress when dealing with discogenic conditions is:
- A. A stabilization of the pain
 - B. Decrease localized discomfort closer to the trunk
 - C. A greater distance from your spine to the area of discomfort
 - D. Increased localized discomfort closer to the trunk
47. Which exercise should be avoided for those with neck discogenic pain?
- A. Seated leg press
 - B. Lateral raise
 - C. Seated bicep curl
 - D. Isometrics
48. Which exercise does not need to be avoided for those with spondylolisthesis?
- A. Trunk rotations
 - B. Standing military press
 - C. Seated bicep curls
 - D. Trunk extensions
49. Isometric exercises have been shown to do all of the following when done correctly, EXCEPT:
- A. Help treat osteoarthritis
 - B. Help reverse osteoporosis
 - C. Prevent spinal stenosis
 - D. Increase brain cell production
50. Five lifestyle factors that can affect spinal pain include all of the following EXCEPT:
- A. Sleep
 - B. Age
 - C. Stress
 - D. Smoking
51. What is the fuel that is needed for cells to survive?
- A. Iron
 - B. Protein
 - C. Glucose
 - D. Oxygen

52. Which of the following is best suited for cardio exercise for those with spinal pain?
- A. Swimming
 - B. Biking
 - C. Seated ergometer
 - D. Rowing
53. A novice should take how long to learn how to strength train with spinal issues?
- A. 6-10 weeks
 - B. 1-4 weeks
 - C. 6 months
 - D. 1 session
54. How many repetitions is a good starting point for strength training with back and neck pain?
- A. 20-25 reps
 - B. 15-20 reps
 - C. 5-6 reps
 - D. 8-12 reps
55. What is the most important fitness component for most people dealing with spinal pain and dysfunction?
- A. Strength training
 - B. Stretching
 - C. Cardio
 - D. Muscular endurance
56. How long should stretches be held?
- A. 10 seconds
 - B. 20 seconds
 - C. 60 seconds
 - D. 40 seconds
57. Which statement concerning obesity is false?
- A. Not all obese individuals eat poorly
 - B. Obesity increases the risk of sleep apnea
 - C. Obesity increases cortisol
 - D. All obese individuals will have spinal problems
58. Which of the following is not considered to be an anti-inflammatory food?
- A. Dark blue fruits and vegetables
 - B. Olive oil
 - C. Nuts
 - D. Simple carbohydrates
59. What is the latest time is it best to discontinue eating or drinking stimulants in order to get a good night's sleep?
- A. 12:00 noon
 - B. 11:00 am
 - C. 5:00 pm
 - D. 6:00 pm
60. Why are smokers more prone to spinal pain than nonsmokers?
- A. Nicotine reduces blood flow to the spinal discs
 - B. Smokers do not exercise
 - C. Nicotine decreases muscular flexibility
 - D. Nicotine causes bone cancer

61. Eustress is:
- A bad type of controllable stress such as a relationship problem
 - A bad type of stress such as financial problems
 - A good type of stress such as an appropriate exercise program
 - A good type of uncontrollable stress such as a sunny day
62. Which type of force is considered to be the “friendly” force?
- Torsion
 - Shearing
 - Compression
 - Distraction
63. Which type of force can be a therapeutic type of force?
- Distraction
 - Shearing
 - Torsion
 - Compression
64. Which statement is false concerning the stagger stance?
- It takes quite a bit of strain off the neck and lumbar spine
 - It is a better way to reach overhead
 - The closer you have to reach the greater demand on the spine
 - It allows for the shifting of weight as you do certain activities
65. Which statement is false concerning the golfer’s lift?
- The weight of the item you are lifting does not matter for this mechanism
 - The foot of the back leg should lift at least 1 foot off the ground
 - The movement helps to unlock the hip joint
 - The back leg being lifted is opposite of the hand being used to pick up the object
66. Having the phone, computer mouse, and all desk top items on one side can lead to all of the following problems EXCEPT:
- Nerve compression
 - Overuse syndrome
 - Shoulder impingement
 - Lateral epicondylitis
67. Which of the following is not associated with overreaching at a computer workstation?
- Lateral neck tightness
 - Muscle spasm
 - Stenosis
 - Tennis elbow
68. If a person wears bifocals, the top line of the text on a computer monitor should be at what level to the eye?
- 2 inches higher than eye level
 - Even with eye level
 - Even with the top of the glasses
 - 2 inches lower than eye level
69. An unbalance work area most often refers to:
- The height of your chair
 - The position of items on your desk
 - The location of your printer to your desk
 - The lighting in your office

70. Which of the following is incorrect concerning executive chairs?
- A. It is not ideal for prolonged desk work
 - B. It comes in two pieces so it is easily adjustable
 - C. It comes with armrest which are important to have
 - D. It is ideal for tilting the chair back in order to rest
71. Which of the following is an incorrect workstation adjustment?
- A. An open-back chair is best
 - B. Hips should be slighter higher than the knees when sitting in the chair
 - C. Arm rests should be even with the level of the elbows
 - D. In regards to the seat depth, there should be a two finger gap from the front edge of the chair to the lower leg
72. Who benefits the most from floor mats?
- A. Those who cannot find an appropriate height chair
 - B. Those who do not move around in their office in their chair
 - C. Those without carpet in their work area
 - D. Those with multiple work area in relation to their desk requiring them to move in their chair
73. Which statement is false concerning wrist rests?
- A. Place your hands on them with the pinky down and the thumb up
 - B. It should be slightly higher than the front edge of the keyboard
 - C. Do not anchor your wrist on the mouse pad
 - D. Avoid keeping your elbows and forearms stationary on the armrests
74. How far away should the computer monitor be when you are sitting?
- A. 1 foot
 - B. 1 arm's length
 - C. 6 inches
 - D. As far back as the desk will allow
75. What is considered the most important step to take when selecting a physician to diagnose and treat a spinal problem?
- A. Is the doctor board certified
 - B. The doctor's specialties
 - C. Know yourself
 - D. Does the doctor have good bed side manner
76. What percentage of patients over 50 years old show some kind of spinal abnormality with or without symptoms?
- A. 90%
 - B. 40%
 - C. 70%
 - D. 50%
77. What does HELP stand for?
- A. History, physical exam, lab test, prescription
 - B. History, exercise, lab test, physical therapy
 - C. History, physical exam, lab test, physical therapy
 - D. History, physical exam, lab test, pain level

78. The physical exam should consist of all of the following EXCEPT:
- A. Maneuvers
 - B. Blood tests
 - C. Palpation
 - D. Neurological exam
79. Which of the following is not a main spinal structure that is tested for the lower spine?
- A. Femoral nerves
 - B. Piriformis muscle
 - C. Hip joint
 - D. Knee joint
80. The two test that should be conducted at the minimum by your physician are the:
- A. FABER and straight leg
 - B. PECK and FABER
 - C. Femoral stretch and the PECK
 - D. PECK and straight leg
81. Which test helps to verify a positive straight leg test?
- A. FABER test
 - B. PECK test
 - C. Flip test
 - D. Femoral stretch test
82. What does FABER stand for:
- A. Flexion, Abduction, External Rotation
 - B. Flexion, Abduction, Extension, Rotation
 - C. First Assess the Back with Extension and Rotation
 - D. Flexion Around the Back with External Rotation
83. How specific and accurate is the Tinel's sign for determining carpal tunnel syndrome?
- A. 90%
 - B. 80%
 - C. 75%
 - D. 10%
84. Which of the following procedures is incorrect for the Bikele Maneuver test?
- A. The hand is palm up
 - B. The thumb is folded into the palm
 - C. The arm is stretched out to the side
 - D. The arm is away from the body
85. The neurological exam performed by the doctor includes all of the following EXCEPT:
- A. Motor evaluation
 - B. Sensory evaluation
 - C. Muscular imbalance evaluation
 - D. Gait evaluation
86. Which of the following is the most frequently misinterpreted symptom?
- A. Flexibility
 - B. Reflex
 - C. Sensory
 - D. Weakness

87. Spinal pain has what percentage chance of reoccurrence?
- A. 100%
 - B. 44%
 - C. 95%
 - D. 84%
88. If a client is experiencing pain in the neck and from the shoulder to the biceps with tingling in the thumb, this may indicate:
- A. Axillary nerve
 - B. Thoracic outlet
 - C. Ulnar tunnel syndrome
 - D. Saturday night palsy
89. Lumbosacral plexus can occur at all the nerve roots EXCEPT:
- A. Sacral 1
 - B. Lumbar 5
 - C. Lumbar 4
 - D. Lumbar 3
90. If you suspect your spinal issue may be related to a rheumatological disease, which lab test should you get?
- A. MRI
 - B. Blood test
 - C. CAT scan
 - D. EMG
91. Which of the following is not a test used to determine spinal issues?
- A. MRI
 - B. Bone Scan
 - C. CT Scan
 - D. EKG
92. How long does it take to get accurate information from an EMG?
- A. 2-3 days
 - B. 48 hrs
 - C. 2-3 weeks
 - D. 6 months
93. What is the chance that a physician will write a prescription for pain relief on the first visit?
- A. 56%
 - B. 87%
 - C. 92%
 - D. 100%
94. Which medication will less likely cause constipation?
- A. Celebrex
 - B. Ultra
 - C. Vicoden
 - D. Fentanyl
95. What should be checked on a regular basis if taking pain medications?
- A. Bladder and heart
 - B. Heart and kidney
 - C. Stomach and liver
 - D. Kidney and liver

96. Which of the following muscle relaxants does not cause drowsiness?
- A. Zanaflex
 - B. Corticosteroids
 - C. Baclofen
 - D. Diazepam
97. Which of the following antidepressants typically does not cause dry mouth?
- A. Cymbalta
 - B. Savella
 - C. Elavil
 - D. Venlafaxine
98. Relief from an epidural or injection usually lasts how long?
- A. 2-6 years
 - B. 1 year
 - C. 6 months
 - D. 2-6 weeks
99. How often do doctors typically recommend injections for a patient?
- A. 2-3 times per year
 - B. 1 time per year
 - C. As often as needed
 - D. Every 2 weeks until the pain goes away
100. Which surgery is to help correct back or neck pain caused by movement?
- A. Decompression
 - B. Fusion
 - C. Discectomy
 - D. Laminectomy