

1. A child with Legg-Calve-Perthe's disease should be braced with the thigh and hip in:
 - a. internal rotation and abduction
 - b. internal rotation and extension
 - c. external rotation and flexion
 - d. external rotation and extension
 ...A...
2. A 26 year old male presents with a history of trauma. Passive range of motion is hypermobile in the upper cervical area. The Davis series is taken to rule out damage to all of the following ligaments except:
 - a. capsular
 - b. intertransverse
 - c. interspinous
 - d. anterior longitudinal
 - e. posterior longitudinal
 - f. alar ligament
 ...B...
3. Identify the test in which the straight leg raiser of the unaffected limb produces sciatic pain in the opposite limb:
 - a. Laseque's
 - b. Goldthwaite's
 - c. Fajersztajn's
 - d. Gaenshen's
 ...C...
4. A female who is in her seventh month of pregnancy goes in for a routine examination. While raising her head from the supine position, a midline abdominal mass is noted. This is most likely to be:
 - a. incisional hernia
 - b. hernia linea alba
 - c. umbilical hernia
 - d. diastasis recti
 ...D...
5. The destruction of a pedicle which is visible on a routine A-P lumbar radiograph is most frequently associated with:
 - a. osteosarcoma
 - b. enchondroma
 - c. osteolytic metastasis
 - d. unicameral bone cyst
 ...C...
6. Swelling and tenderness of the pes anserine bursa can be palpated at the:
 - a. superior patella
 - b. inferior patella
 - c. medial to the tibial tuberosity
 - d. lateral to the tibial tuberosity
 ...C...
7. Which of the following is characteristic of an increase of erythrocyte sedimentation rate:
 - a. osteoarthritis
 - b. sickle cell anemia
 - c. multiple myeloma
 - d. polycythemia vera
 ...C...
8. A radiolucent expansile lesion which is characteristically present in the distal femur or proximal tibia and may progress to the articular surface is:
 - a. Ewing's sarcoma
 - b. giant cell tumor
 - c. fibrosarcoma
 - d. osteoma
 ...B...
9. On a case of a traumatic injury, a lumbar radiograph reveals a bulging of the psoas muscle. This unusual finding suggests:
 - a. bowel gas
 - b. hemorrhage
 - c. ligamentous instability
 - d. vertebral collapse
 ...B...
10. The advantage of the MRI over a CT scan is that the MRI:
 - a. is less expensive than the CT
 - b. is more accepted by the scientific community
 - c. does not use ionizing radiation
 ...C...
11. Adjustment of S2 nerve root is most beneficial in treatment in which condition?
 - a. skin problems
 - b. constipation
 - c. colic
 - d. enuresis
 - e. diarrhea
 ...B...
12. A Schilling shift to the left, a mild elevation of the alkaline phosphatase and serum bilirubin and a great increase of the SGOT indicates:
 - a. acute myocardial infarction
 - b. acute cholecystitis
 - c. acute hepatitis
 - d. chronic appendicitis
 ...C...
13. Myofascial pain syndrome is characterized by all of the following except:
 - a. hypermobility with subsequent muscle spasms
 - b. aggravated by function
 - c. altered medial occlusion position
 - d. incoordinated contraction of the lateral pterygoids
 ...C...
14. Which is not associated with adrenal insufficiency?
 - a. weight gain
 - b. fatigue
 - c. dizziness
 - d. abdominal pain
 ...A...
15. A male presents with a tender lemon shaped mass, 3 cm. in diameter in the mid belly of the biceps and proximal to the antecubital fossa. The pain began suddenly 2 days ago while bowling. The probable diagnosis would be?
 - a. tendinitis
 - b. congenital anomaly
 - c. proximal biceps tendon rupture
 - d. local hypertrophy of the distal biceps muscle
 ...C...
16. Spasmodic flank pain that radiates to the groin with mild hematuria suggest:
 - a. acute cystitis
 - b. acute cholecystitis
 - c. ureteral stone
 - d. nephrosclerosis
 - e. acute pyelonephritis
 ...C...
17. Pain which lasts only a few seconds and disappears with no correlation to tissue movement, and is described as shooting, burning or lightening-like:
 - a. ligamentous sprain
 - b. myositis
 - c. bursitis
 - d. neuralgia
 ...D...
18. A 24 year old male presents with acute thoraco-lumbar pain which occurred while tobogganing. He has treated for Crohn's disease with steroid therapy for the past four years. Your diagnosis:
 - a. strain-sprain
 - b. colon problem
 - c. thoraco-lumbar
 - d. vertebral fracture
 ...D...
19. The best position for sleep for a person with sciatica and an L5 discopathy:
 - a. prone, no pillow
 - b. prone with a pillow under the hips
 - c. supine with a pillow under the hips
 - d. lateral recumbent position with the knees flexed
 - e. supine with a rolled towel under the knees
 ...E...
20. A patient presents with a flat foot and a gait which has no forceful toe-off has a motor deficit at what cord level?
 - a. L3
 - b. L4
 - c. L5
 - d. S1
 ...D...
21. Normal articular cartilage fails under cyclic loading due to tissue:
 - a. malnutrition
 - b. fatigue
 - c. aging
 - d. inflammation
 ...B...
22. For a patient with pes planus, which of the following is least likely to aid the condition?
 - a. foot roll exercises
 - b. open-toe shoes
 - c. inversion/plantar flexion exercises
 - d. lateral heel lift
 - e. sole lift
 ...D...
23. The spinal nerve root responsible for primary scapular retraction is:
 - a. C1
 - b. C5
 - c. T1
 - d. T7
 ...B...
24. Upon mechanical irritation of spinal nerve roots due to inflammation of the posterior joints in the spine initially causes _____ changes.
 - a. sensory
 - b. motor
 - c. autonomic
 - d. reflex
 ...D...
25. What is the best treatment of a patient who was punched in the face and aspirated a tooth?
 - a. induce vomiting
 - b. take an A-P chest x-ray
 - c. give an herbal remedy to induce vomiting
 - d. refer to the emergency room
 ...D...
26. A 46 year old female presents with muscle weakness and fatigability on exertion. She also has a mask face, dysphagia, pharyngitis, diplopia, and lid lag.
 - a. lupus erythematosus
 - b. amyotrophic lateral
 - c. cerebellar palsy
 - d. myasthenia gravis
 - e. muscular dystrophy
 ...D...
27. A thoracic nerve root compression will most likely cause:
 - a. radiating pain from the mesogastrium to upper thoracics
 - b. severe pain in a sloping pattern which follows the intercostal spaces
 - c. local pain to the spine
 - d. horizontal pain from P-A into the pectorals
 ...B...
28. Which is least useful to do for a patient with a palpable and visible abdominal pulsations?
 - a. fluid wave
 - b. blood pressure
 - c. lateral palpation of aorta
 - d. EKG
 ...D...
29. What major peripheral nerve is tested by thumb abduction, opposition, and compression?
 - a. radial
 - b. median
 - c. ulnar
 - d. musculocutaneous
 - e. axillary
 ...B...
30. A 36 year old woman presents with dyspnea and right side pain. Her symptoms were of sudden onset one evening, and the next morning she woke up with a cold and caught. She is afebrile and her blood chemistries are unremarkable. She presently had tachypnea, with an antalgic lean to the right:
 - a. spontaneous pneumothorax
 - b. lobar pneumonia
 - c. rib fracture
 - d. carcinoma of the lung
 ...A...
31. Kid was thrown while playing karate and fell on his back. Findings are weak head rotation and flexion, with normal range of motion:
 - a. fractured vertebra
 - b. strain of the SCM
 - c. strain of the cervicis and capitus
 ...B...
32. The seventh cervical vertebra cannot be visualized well on the neutral lateral cervical. What view would be taken next?
 - a. Water's
 - b. Swimmer's lateral
 - c. pillar view
 - d. Towne's
 ...B...

33. What test will help differentiate a sacro-iliac lesion from a lumbo-sacral lesion?
a. Gaenslen's
b. Goldthwait's
c. Patrick's
d. Braggard's
...B...
34. Which serum enzyme will be elevated in the first 3-6 hours after a myocardial infarction?
a. LDH
b. SGPT
c. ESR
d. CPK-MB
...D...
35. The maintenance of the normal articular juxtaposition of the upper cervical complex is dependent upon:
a. muscular elasticity
b. ligamentous integrity
c. osseous structures
d. vascular patency
...B...
36. Person lies prone for a period of time then when they get up, they have low back pain on flexion and extension:
a. tear in the sacrospinatus
b. articular capsulitis
c. disc herniation
d. transverse myelitis
...B...
37. What level does the pronator reflex test:
a. C5
b. C6
c. C7
d. C8
...D...
38. What type of physiotherapy modality has a distinct chemical effect?
a. ultrasound
b. ultraviolet
c. diathermy
d. infrared
...B...
39. With lumbar disc herniation, which procedure is contraindicated?
a. ice
b. trigger points (Nimmo)
c. bed rest
d. static traction
...D...
40. What is the pause between the QRS and the next wave form?
a. ST segment
b. T wave
c. QS wave
d. P wave
...A...
41. What type of force would you not want to introduce into the spine with a spondylolisthesis?
a. flexion
b. extension
c. lateral flexion
d. rotation
...B...
42. A 60 year old male with low back pain, increased alkaline phosphatase and C-RP:
a. Paget's
b. metastatic carcinoma
c. multiple myeloma
d. thalassemia anemia
...A...
43. Management of an acute tendinitis (tennis elbow) includes all of the following except:
a. apply ice several times a day
b. immobilize the hand and wrist
c. gently take the wrist through its complete range of motion to maintain proper mobility
d. immobilize the elbow
...D...
44. A 20 year old male presents with congested sinuses and a common cold. There are no other complaints. Which of the following supportive therapies is contraindicated?
a. vibratory stimulation to the sinuses
b. infrared to the sinuses
c. hydrocollator packs
d. interferential stimulation
...D...
45. A patient presents with enlargement of the left supraclavicular lymph node. What is the primary area for this condition?
a. upper abdomen
b. breasts
c. nasopharynx
d. left arm
...A...
46. Which of the following tests or signs can be used to differentiate between an injury of the collateral ligaments and that of the menisci:
a. Apley's compression/distraction test
b. Drawer's sign
c. Steinman's sign
d. McMurray's test
...A...
47. A girl presents with a 28° scoliosis which increased 5° since the last examination 6 months ago. What is your management of the patient?
a. chiropractic care and re-x-ray in six months
b. TENS
c. orthopedic consult
d. exercise
...C...
48. With an injury to the transverse process-es of the cervico-dorsal area, which adjunctive therapy would be the least effective?
a. ultrasound
b. flouromethane spray
c. cervical traction
d. electrotherapy
...C...
49. The facets in the upper thoracic region most clearly resemble _____: _____ which is why motion is limited in this direction.
a. cervical:coronal
b. cervical:sagittal
c. lumbar:sagittal
d. lumbar:coronal
...A...
50. In the thoracics, the spinouses move to the _____; similar to the _____ spine.
a. concavity; cervicals
b. convexity; cervicals
c. concavity; lumbrars
d. convexity; lumbrars
...B...
51. Which modality would be most indicated in acute shoulder pain?
a. ice
b. interferential
c. ultrasound
d. diathermy
...A...
52. A mild sprain to the ankle occurred during soccer practice. The earliest that heat therapy should be started would be:
a. 12 hours
b. 24 hours
c. 48 hours
d. 7 days
...C...
53. A young soccer player turns an ankle in a game and presents two days later. What would be recommended:
a. heat only
b. cold only
c. cold in acute phase, hot in chronic phase
d. isotonic and isometric exercises
...C...
54. Which of the following is contraindicated in a patient with carpal tunnel syndrome:
a. flexion
b. cock-up splint
c. heat
d. cryotherapy
...A...
55. Which of the following modalities may be contraindicated in a maxillary sinus problem?
a. interferential
b. ultrasound
c. ultraviolet
d. hydrocollator heat
e. infrared
...A...
56. What modality would most likely be used with a pacemaker?
a. infrared
b. TENS
c. microwave
d. S/W diathermy
e. ultrasound
...A...
57. A patient with a prolapse disc, what don't you do?
a. bed rest
b. trigger points
c. ice
d. static traction
...D...
58. A woman presents with a history of vise-like headaches around the base of her skull, occurring midday at work. The last six months the headache has become unilateral, lasting 2-12 hours, which are preceded by vomiting and strange visuals:
a. tension
b. common migraine
c. temporal arteritis
d. vascular
...B...
59. Woman with headache, she went to an MD who prescribed antihistamine and aspirin. She also takes Vitamin C. What might cause fatigue?
a. aspirin
b. Vitamin C
c. antihistamine
d. caffeine
...C...
60. Which one of the following is least likely to cause joint mice:
a. osteochondritis dessicans
b. osteochondromatosis
c. osteitis condensans ilii
d. osteoarthritis
...C...
61. Which one of the following is the likely standard of care for the Milwaukee bracing?
a. when the scoliosis approaches 30° and is progressive
b. when it is apparent that respiratory attacks will occur
c. before skeletal maturity
d. after skeletal maturation
...A...
62. A 19 year old presents with a well defined kidney-shaped nodule which is mobile, tender and 1 cm in diameter. It does not transilluminate:
a. carcinoma
b. cyst
c. mastitis
d. fibroadenoma
...D...
63. A male patient presents with periorbital headaches which last for two weeks. The headaches begin around 11 AM and last around 2 hours. Blood pressure, funduscopic exam and cranial nerves are normal. Recent history indicates that the patient has recently moved and now skips breakfast:
a. hypoglycemic headache
b. subarachnoid hemorrhage
c. cluster
d. common migraine
...A...
64. A middle aged female presents with pain, slightly elevated temperature with a mild infection of the leg. There are red marks extending from the right medial malleolus to the popliteal fossa with raised tender nodules. The diagnosis:
a. lymphangitis
b. adenitis
c. deep venous thrombosis
d. inguinal lymph node
...A...
65. A patient presents with instability, tremors, inability to sleep:
a. hyperthyroid
b. hypothyroid
c. hyper-parathyroid
d. hypoparathyroid
...A...
66. When you turn the head, the atlas will rotate _____ degrees before the rest of the cervicals move:
a. 15°
b. 25°
c. 35°
d. 45°
...B...

67. A race runner has sharp pain from the hip to the knee, now feels clicking when he walks:
- lateral collateral ligament
 - iliotibial injury
 - medial collateral ligament
 - medial meniscus
- ...B...
68. A female presents with pain in right arm and shoulder. Radiographic examination shows reabsorption of the distal aspect of the right clavicle. Serum calcium is elevated, and there is a decreased serum phosphorus, increased alkaline phosphatase, and ESR:
- hyperparathyroidism
 - hypothyroidism
 - hyperthyroidism
 - hypoparathyroidism
- ...A...
69. Constipation is associated with:
- gall bladder
 - renal colic
 - appendicitis
 - ectopic pregnancy
- ...C...
70. A 28 year old female presents with cervical pain, and headaches which respond immediately to adjustment, yet her situation won't stabilize. This condition may be due to:
- working two jobs to provide for an extremely serious financial burden
 - fumes in workplace and having to crouch low
 - lowering her welding faceplate with neck flexion instead of using her hand
 - doesn't sleep well
- ...A...
71. A male presents with pain in arm and hand down to the little finger. Pain increases on abduction and external rotation of the arm. X-rays revealed bilaterally enlarged ribs at C7 with smooth ends. The thoracic outlet syndrome is due to:
- scalenus anticus and medius
 - tip of last rib
 - 1st rib and clavicle
 - coracoid process
- ...D...
72. A stewardess was pulling a cart down the aisle when she had a sudden onset of acute leg pain from the knee down to the heel. There is no pain in the back, and ranges of motion of the back were normal. Laseque's was positive, normal well leg raiser; negative Valsalva:
- piriformis syndrome
 - pseudosciatica
 - prolapsed disc
 - facet syndrome
- ...B...
73. Patient walks 100 yards with claudication, ignores pain. He continues and the pain disappears:
- vasodilation
 - sensory blocking
 - oxygen debt
 - metabolites
- ...C...
74. A 68 year old patient walks for a hundred yards and feels leg pain. The pain disappears with rest:
- neurogenic
 - muscular
 - vascular compression
 - osteotropic
- ...C...
75. A 49 year old male walks 3 miles and has acute leg pain. He has had this problem on and off for two years:
- degenerative changes in the knee
 - ligamentous
 - rheumatism
- ...A...
76. Crackles in the posterior lateral aspect, fever of 102°, and bilateral depression of the diaphragm (typical picture of respiratory infection):
- chronic asthma
 - lobar pneumonia
 - emphysema
- ...B...
77. A patient's blood pressure during inspiration is 120/80, during expiration 132/90. In supine position it is 120/80 and on standing low. What is the significance?
- systemic hypertension
 - pulsus paradoxus
 - pulsus alternans
 - dicrotic pulse
- ...B...
78. An eighteen month old child has a respiration rate of 30, temperature 100°, pulse rate 110. These findings are:
- normal
 - infection
- ...A...
79. A basketball player was jumping and he felt a click a pain in the knee, McMurray's and Slocum's test was positive:
- medial meniscus
 - lateral meniscus
 - medial collateral ligament
 - lateral collateral ligament
- ...A...
80. Which areas of the spine would be adjusted in a patient with diaphragm problems?
- C1
 - C3-5
 - T1-2
 - T4-6
- ...B...
81. An accentuated QRS complex and an inverted T wave at leads II, III, aVF, and V6:
- angina
 - chronic myocardial infarction
 - acute myocardial infarction
- ...B...
82. A degenerative change at the level of C5-6 the vertebra has osteophytes, sclerosis, no history of trauma. This is referred to as:
- discogenic spondylosis
 - spondylitis
 - spondylolysis
 - ankylosis
- ...A...
83. A 25 year old male comes into the office having previously been diagnosed as having ankylosing spondylitis. What is the best thing to do?
- adjust exclusively and do full spine exercise
 - sacroiliac joint exercise
- ...?...
84. The doctor is examining while patient clenches his teeth testing the masseter and temporalis, what cranial nerve is he testing?
- trigeminal
 - facial
 - hypoglossal
 - vagus
- ...A...
85. Which is a dangerous sign and should be referred out?
- numbness in the lower extremity
 - pain in the lower extremity
 - loss of bladder control
- ...C...
86. A 35 year old male leaned over the sink while shaving. He now has lumbar rigidity and bilateral back pain. Which is likely:
- functional muscle spasm and scoliosis of the lumbar
 - decreased urination and bladder dysfunction
 - decreased achilles reflex
 - facet syndrome
- ...A...
87. What is the effect of chronic decreased blood supply on the skin:
- dark and smooth
 - dark and rough
 - dry and rough
 - white and brittle
- ...D...
88. For a patient with constipation you would want to adjust:
- T12
 - L4
 - S2
- ...C...
89. Myxedema is associated with:
- hypothermia
 - decreased T4
- ...A...
90. Which abnormality is commonly seen with spondylolisthesis?
- sacralization
 - facet arthrosis
 - hypolordosis
 - spina bifida
- ...D...
91. Pain that is increased two hours after eating:
- gastric carcinoma
 - gastric ulcer
 - duodenal ulcer
- ...C...
92. A male who did wide hand pullups, back strokes, breast stroke, wall weight cable pulls. Which muscles are most likely involved?
- rhomboids
 - latissimus dorsi
 - trapezius
- ...B...
93. An increase of the angle formed between a line from the top of the sacral base to the true horizontal:
- hyperlordosis
 - hypolordosis
 - hyperkyphosis
 - hypokyphosis
- ...A...
94. Enlargement of a single supraclavicular lymph node may suggest:
- mononucleosis
 - bronchogenic carcinoma
 - malignancy
- ...C...
95. Radiographs of a woman show the disc spaces at L2-3 are blurred, and the endplates were eroded:
- compression
 - infection
 - malignancy
- ...B...
96. A 37 year old male present with a history of weight loss and chronic sore throat over a two month period, and night sweats:
- CBC
 - UA
 - ask him about his lifestyle
 - ask him about possible chemical exposure
- ...C...
97. How would you handle this low back patient?
- adjust adrenals only, moderate protein intake, low carbohydrates, no salt
 - stay away from the cervicals, adjust the cardiac, renal and adrenal areas
 - limit protein and marine lipid intake
 - adjust cardiac and renal areas, moderate protein, low fat and marine lipids, and low salt
- ...D...
98. A 50° scoliosis:
- muscle stimulation
 - re-evaluation in 3 months
 - immediate referral if there were lung compromise
 - exercise
- ...C...
99. Cervical manipulations is contraindicated in:
- "drop attacks"
 - rotation of the head and pain
- ...A...
100. A 13 year old female presented with fever, pain in the ankle, knee, hand and shoulder. Her mother stated there was a throat infection two weeks ago. A systolic murmur is heard over the mitral area of the heart. ESR and C-RP were elevated. What is the next best test?
- Monospot
 - EKG
 - SGOT
 - ASO titre
- ...D...
101. Which peripheral nerve can be tested by opposition of the thumb?
- radial
 - ulnar
 - median
 - axillary
 - musculocutaneous
- ...C...
102. Cyanosis which is localized to the neck, head, and upper limbs is characteristic of:
- acrocyanosis
 - superior vena cava obstruction
 - abdominal aortic aneurysm
 - shock
 - peripheral vascular disease
- ...B...

103. A 28 year old female presents with numbness in the first three fingers. It is aggravated by carrying her purse for a few minutes. The symptomatology is caused by:
- carpal tunnel syndrome
 - ulnar compression
 - cervical rib
 - radial nerve entrapment
- ...A...
104. Which postural position is most likely to aggravate facet imbrication?
- sitting
 - standing
 - lying supine
 - lying lateral decubitus
- ...B...
105. What is the best treatment for a fracture of the second lumbar vertebra?
- surgical suture
 - ultrasound
 - chiropractic adjustment
 - ice, bed rest, and lumbar support
- ...D...
106. An elevated alkaline phosphatase and ESR may be seen in?
- rheumatoid arthritis
 - osteoarthritis
 - Paget's disease
 - ankylosing spondylitis
- ...C...
107. Elevated alkaline phosphatase levels in a 19 year old male may suggest:
- normal to bone growth
 - osteosarcoma
 - Paget's disease
 - metastatic carcinoma
- ...B...
108. A patient with an acute compressed spinal nerve will most likely describe the pain as:
- dull
 - vague ache
 - diffuse burning
 - sharp and shooting
- ...D...
109. A 26 year male patient presents with a history of a cough and night sweats of two weeks duration. He has had similar episodes before. He would most likely be diagnosed as having:
- asthma
 - congestive heart failure
 - tuberculosis
 - peripheral vascular obstruction
- ...A...
110. The upper limit of the ADI in an adult is:
- 3 mm
 - 4 mm
 - 5 mm
 - 6 mm
- ...A...
111. The most common postural cause of low back pain is?
- degeneration of the disc
 - degenerative joint disease of the posterior joints
 - hypolordosis
 - excessive lordosis
- ...D...
112. The blood chemistry which is elevated in tissue destruction:
- serum chloride
 - serum glucose
 - cholesterol
 - lactic dehydrogenase
- ...D...
113. The most common cause of the vacuum phenomenon in the intervertebral disc is?
- discogenic spondylosis
 - rheumatoid arthritis
 - metastatic carcinoma
 - trauma
- ...A...
114. Which of the following could be a cause of neck pain?
- cholecystitis
 - endometriosis
 - Pancoast tumor
 - peptic ulcer
- ...C...
115. Symptoms for myxedema would include:
- perspiration
 - hypothermia
 - hyperventilation
 - weight loss
- ...B...
116. Compression of which spinal level causes weakness of the intrinsic muscles of the toes and bladder incontinence?
- L3-4
 - L4-5
 - L5-S1
 - S2-4
- ...D...
117. Which of the following orthopedic devices would immobilize the head in extension, flexion and rotation by use of a chin support?
- Risser's
 - Knight's
 - Guildford's
 - plastic cervical collar
- ...C...
118. A 36 year old male patient presents with retro-patellar pain and crepitation. The knee give way but does not lock. The pain is worse when walking up the stairs or rising from the seated position:
- chondromalacia patellae
 - cruciate ligament lesion
 - degenerative arthritis
 - patellar tendinitis
- ...A...
119. The center of gravity while standing will be found:
- atlas
 - center of a thoracic vertebrae
 - S2
 - shaft of the femur
- ...C...
120. With iontophoresis, what substance would be used to treat a fungal infection?
- copper
 - chloride
 - calcium
 - MgSO₄
- ...A...
121. A 35 year old male presents with the following findings; (+) Braggard's on the right, (+) Valsalva, (+) listing to the right, limited and painful range of motion. The possible diagnosis is:
- sciatica
 - lumbar strain/sprain
 - L5-S1 disc protrusion right
 - L4-5 disc protrusion-left
- ...C...
122. A 60 year old male has hematuria. Which signs and symptoms would suggest an ulcer of the bladder trigone?
- constant hematuria with referred pain to the groin
 - blood in the initial stream of urination
 - gross blood at the end of urination
 - occult hematuria only
 - detected by microscopic exam of urinary sediment
- ...C...
123. Secondary tropic changes that may accompany long standing vascular insufficiency:
- smooth and thin
 - dry and thick
 - rough and thick
 - dark and rough
 - mottled and coarse
- ...A...
124. Which of the following is the most common direction of a patellar dislocation?
- anterior and inferior
 - superior and medial
 - anterior
 - lateral
- ...D...
125. The trigger point of which muscle may mimic angina?
- supraspinatus
 - subscapularis
 - scalenes
 - trapezius
- ...A...
126. Which of the following is the most common configuration of pathological fracture of an extremity?
- impacted
 - spiral
 - oblique
 - transverse
- ...D...
127. A patient presents with subclinical ankylosing spondylitis. What would be the most important question in the case history?
- familial history
 - diet
 - socioeconomic background
 - exercise
- ...A...
128. A patient presents with right forearm weakness and atrophy. The history reveals a previous hairline fracture, and the cast was removed one day before presentation. The recommended treatment would include all except:
- active exercise
 - high volt galvanic-pulsed
 - electrical stimulation
 - mechanical vibration
- ...D...
129. "Brailsford's bow-line" is indicative of?
- spondylosis
 - spondylolysis
 - spondylolisthesis
 - separation of the endplate
- ...C...
130. Motion on a horizontal plane along a vertical axis:
- finger flexion/extension
 - thumb abduction
 - cervical rotation
 - hip flexion
- ...C...
131. A 45 year old male presents with right sided neck pain which radiates to the right shoulder and medial border of the scapula with right lateral arm numbness. There is a (+) Spurling's. This would suggest nerve root compression of what level?
- C4
 - C5
 - C6
 - C7
 - C8
- ...A...
132. The gracilis tendon can be palpated to be more prominent with the leg _____ and _____ against resistance.
- flexion and internal rotation
 - extension and external rotation
 - adduction and internal rotation
 - abduction and internal rotation
- ...A...
133. A common complication of scaphoid fracture is:
- flexion deformity
 - avascular necrosis
 - malignancy
 - pseudoarthrosis
- ...B...
134. Heat applied on the right arm causes increased blood flow on the left arm by what mechanism?
- convection
 - conduction
 - reflex
 - radiation
- ...C...
135. A 42 year old female has pain at the upper right quadrant which radiates to the right scapula. What blood test would be ordered?
- CBC and sedimentation rate
 - bilirubin
 - non-protein nitrogen
- ...B...
136. Which simple uncomplicated fracture has the least favorable prognosis?
- greenstick fracture of the clavicle in a 6 year old girl
 - spiral fracture of the humerus in a 16 year old male
 - stress fracture of the tibia in a 35 year old male
 - compression fracture of T12 in a 65 year old female
- ...D...
137. The presence of immature white blood cells in the peripheral blood when there is no sign of infection indicates:
- bone marrow disease
 - acute blood loss
 - parasitic infestation
 - soft tissue injury
 - starvation
- ...A...
138. What condition may cause you to use caution when adjusting the cervicals?

- a. hypothyroidism
- b. carpal tunnel syndrome
- c. pregnancy
- d. lumbosacral syndrome
- e. mongoloidism
- ...E...

139. Atelectasis, wheezing, and enlargement of the supraclavicular lymph nodes are characteristic of:

- a. acute bronchitis
- b. bronchogenic carcinoma
- c. COPD
- d. asthma
- ...B...

140. The modality which would be best to use prior to adjusting an acute low back patient?

- a. hydrocollator
- b. dry heat
- c. ice
- d. continuous ultrasound
- ...C...

141. A 19 year old male presents with acute low back pain and a right swollen and painful knee. Both eyes are bloodshot and hypersensitive to light. He states that he has recently been treated for urethritis. This would be characteristic of?

- a. SLE
- b. Reiter's syndrome
- c. psoriatic arthritis
- d. scleroderma
- ...B...

142. Hypertrophy of the articulating surfaces or degenerative changes of the articular pillars causes which of the following syndromes?

- a. lateral recess stenosis
- b. spondylolisthesis
- c. tropism
- d. imbrication
- ...A...

143. Ultraviolet may be used in the treatment of:

- a. shingles
- b. tuberculosis
- c. heart problems
- d. hypertension
- ...A...

144. A 25 year old female with cyanosis of the hands especially after exposure to cold water:

- a. Raynaud's
- b. acrocyanosis
- c. heart disease
- d. erythromelalgia
- ...A...

145. A patient with low back strain has been under treatment for 2 weeks with no improvement. What would be recommended next?

- a. refer to a neurologist
- b. re-exam and alter the treatment regimen
- c. continue treatment for another week with re-evaluation
- ...B...

146. Anterior thigh pain with a decreased patellar reflex would suggest involvement of which neurological level?

- a. L3
- b. L4
- c. L5
- d. S1
- ...A...

147. Upon performance of the Soto-Hall test, a male patient experiences a transient, electric-like shock down

his body and into his upper and lower extremities. The condition most likely to cause this would be:

- a. vertebral artery compression
- b. multiple sclerosis
- c. degenerative disc syndrome
- d. scalenus anticus syndrome
- ...B...

148. Severe pain is elicited with Soto-Hall. What would be your next step?

- a. adjust
- b. cervical series
- c. HVG on cervicals
- ...B...

149. Coxa varus and coxa valgus would be measured with which method?

- a. Shenton's
- b. angle of inclination
- c. Kohler's line
- d. Skinner's line
- ...B...

150. The first type of exercise that would be recommended for a musculoskeletal or a joint injury?

- a. active
- b. passive
- c. active assisted
- d. active resistive
- ...B...

151. On otoscopic examination, a red, pusatile mass behind the tympanic membrane is noted:

- a. acoustic neuroma
- b. rubal tumor
- c. otitis media
- d. chemodectoma
- ...D...

152. Upon otoscopic examination, the eardrum is pearly gray, but the external ear is red. This is most suggestive of?

- a. otitis media
- b. eustachian tube blockage
- c. hemorrhage
- d. external infection
- ...D...

153. The patient is asked to hold a piece of paper between the thumb and index finger but is unable to do so. What is the nerve involvement?

- a. radial
- b. median
- c. ulnar
- d. C5 dermatome
- ...C...

154. A patient presents with foot drop. What nerve is likely to be involved?

- a. superficial peroneal
- b. deep peroneal
- c. anterior tibial
- d. posterior tibial
- ...B...

155. What part of the patient's neck would you not want to apply electrical stimulation?

- a. lateral neck
- b. anterior neck
- c. posterior neck
- d. trapezius
- ...B...

156. A female patient presents with winging of the scapula. Which of the following activities is likely to have caused it?

- a. carrying a heavy purse
- b. lifting a heavy object
- c. pushing a shopping cart
- ...B...

157. The patient is supine and the doctor rotates and extends their head to adjust them. The patient gets dizzy. What should be done next?

- a. check for vertebral basilar insufficiency
- b. bring the head to neutral and adjust them
- c. Adson's test
- d. refer
- ...A...

158. A patient present with a sudden onset of an uneven smile, watering eye, and has been sleeping in a cold draft. The best diagnosis is:

- a. trigeminal neuralgia
- b. Bell's palsy
- c. Arnold's neuralgia
- d. TMJ syndrome
- ...B...

159. What neurological area would be suspected if a patient were unable to abduct or adduct their fingers?

- a. C6
- b. C7
- c. C8
- d. T1
- ...D...

160. Which of the following spinal segments supply the diaphragm?

- a. C3-5
- b. T2
- c. T4
- d. T10-11
- ...A...

161. A patient has pain in the gluteals, and down the lateral side of their leg. He is unable to extend his toes. What neurological area is suggested?

- a. L2-3
- b. L3-4
- c. L4-5
- d. L5-S1
- ...C...

162. Which of the following diseases will close off the IVF and produce radicular pain?

- a. neurofibromatosis
- b. ankylosing spondylitis
- c. meningioma
- d. hemangioma
- ...A...

163. A 16 year old presents with headaches of several weeks duration. The pain is bilateral behind the supraorbital ridge and increased when the patient blows their nose or bends over. The head-aches are present upon awakening, gets better when arising, but are worse at mid morning. This would be suggestive of which headache type?

- a. cluster
- b. sinus
- c. tension
- d. migraine
- ...B...

164. A 45 year old female presents with a 4 year history of hip pain which is getting progressively worse. She also complains of arm stiffness which seems to be relieved by rest. Radiographs reveal sclerosis at the lateral and superior aspect of the hip, with a slight decrease in the joint space.

- a. avascular necrosis
- b. rheumatoid arthritis
- c. degenerative arthritis
- d. infectious arthritis
- ...C...

165. A 26 year old female presents with normal vital signs, left eye pain, left lateral nystagmus, +4 reflex on the left lower extremity, unilateral clonus, left arm and leg weakness. What sign or symptom might be expected to occur next?

- a. numbness and tingling of the extremity
- b. severe RUQ pain
- c. colicky flank pain
- d. bilateral sacral
- ...A...

166. The next presenting sign or symptom would be expected:

- a. unilateral or bilateral myoclonus
- b. ankle edema
- ...A...

167. The spinal anomaly that would mimic this problem would be:

- a. spondylolisthesis
- b. basilar impression
- c. spina bifida occulta
- ...B...

168. A male presents with low back pain which radiates to the calf. After two weeks of treatment the calf pain has subsided, but the back pain is unchanged. What would you do next?

- a. change treatment with re-evaluation in two weeks
- b. refer to a neurologist
- c. establish a high fiber and low protein diet
- d. put on vitamins
- ...A...

169. A 56 year old male has an 8 year history of headaches and three car accidents. What would be your next step in your management of this patient?

- a. CBC
- b. cervical series
- c. urinalysis
- ...B...

170. A 58 year old male has had low back pain for six months. The signs and symptoms include urinary hesitancy and frequency. The urine stream stops involuntarily. The night before he was unable to sleep or void. He has a temperature of 102°, with a blood pressure of 180/118. He also has pedal edema, with a firm and tender mass in the suprapubic area. This is probably due to:

- a. IVD syndrome
- b. peritonitis
- c. urinary obstruction
- d. cauda equina syndrome
- ...C...

171. Based upon the presenting information what is the likely cause of the fever?

- a. bladder infection
- b. peritonitis
- c. prostate carcinoma
- d. benign prostatic hypertrophy
- ...A...

172. Upon rectal exam, the prostate is found to be firm, nontender, nodular and four times its normal size. The probable diagnosis?
a. benign prostatic hypertrophy
b. prostatic carcinoma
c. prostatitis
...D...
173. What lab tests would be indicated on this patient?
a. acid phosphatase
b. acid and alkaline phosphatase
c. alkaline phosphatase only
d. SGPT and SGOT
...B...
174. A boy has an elevated alkaline phosphatase three times the normal level. This would suggest:
a. multiple myeloma
b. metastatic carcinoma
c. hyperparathyroidism
d. osteosarcoma
e. osteomalacia
...D...
175. A female in her third trimester of pregnancy presents with low back pain. This is probably NOT due to:
a. ligament laxity due to hormonal elevations
b. shift of the center of gravity
c. intrapelvic fetal movements
d. posterior rocking of the ilia relative to the sacrum
...D...
176. A 48 year old male with flank pain, normal x-rays, and lab. What would be performed next?
a. prostate exam
b. urinalysis
c. CBC
...B...
177. What imaging method would you use to detect in spinal canal (sic)?
a. MRI
b. CT
c. ultrasound
d. myelogram
...B...
178. A patient with a history of hyperthyroidism, increased free T4 to complete study:
a. TSH
b. free T3
c. free thyroxin index
d. total T4
...C...
179. The advantage of a CT over plain film radiography would be:
a. non-ionizing radiation
b. patient is more comfortable
c. more clearly demonstrates?
...C...
180. Patient is unable to flex the right knee. Which is likely to be involved?
a. L4-5
b. L5-S1
c. S1-2
d. gluteus medius
...B...
181. In a patient with facet syndrome, what exercises would be recommended?
a. Frenkel's
b. Williams
c. DeLorme
d. pendulum
...B...
182. Recurrent torticollis may be due to involvement of which of the following nerves:
a. trigeminal
b. oculomotor
c. hypoglossal
d. spinal accessory
...C...
183. What gives a patient a pseudospondylolisthesis?
a. disc degeneration
b. bilateral pars defect
c. facet tropism
...A...
184. What is the most common cause of low potassium seen in the chiropractic office?
a. hyperaldosterone
b. diuretic therapy
...B...
185. A lack of external eye coordination may be due to which of the following?
a. conjunctival hemorrhage
b. blepharitis
c. conjunctivitis
d. ciliary infection
...D...
186. The patient has lumbar facet sclerosis with some narrowing of the IVF. What exercise would you recommend?
a. stretch hamstrings
b. deep knee bends
c. supine knee to chest
d. lateral bending exercises
...C...
187. A patient presents with a moderate essential hypertension. Which of the following would not be included in your treatment plan?
a. restriction of alcohol
b. restriction of sodium and phosphorus
c. cessation of smoking
d. regular exercise
...D...
188. A 60 year old slightly over-weight male presents with progressive neck pain of 3 months duration. Routine history reveals a measles, mumps, pneumonia, 3 previous whiplash injuries, Bright's disease and headaches. The patient gets dizzy when he turns his head to the right. He also has left shoulder pain. Which of the following would be contraindicated?
a. ultrasound
b. rotary adjustments
c. diathermy
...B...
189. What should be the next step after the case history?
a. urinalysis
b. CBC
c. cervical series
d. MRI
...C...
190. Which of the following tests would be used to identify a cervical rib?
a. Allen's
b. Adson's
c. Eden's
d. Wright's
...B...
191. Which of the following modalities would not be recommended on a patient with cough and hemoptysis?
a. infrared
b. diathermy
c. continuous ultrasound
d. ice
...C...
192. What is the recommended vitamin therapy for a patient with benign prostatic hypertrophy?
a. alanine, glycine, glutamic acid
b. vitamin A and C
c. vitamin B-complex
d. zinc, magnesium, manganese
...D...
193. Traction of the cervical spine will cause a change in the curve at which pressure?
a. 5-10 pounds
b. 10-15 pounds
c. 15-20 pounds
d. 20-25 pounds
...D...
194. On which view would facet imbrication be best noted?
a. A-P
b. lateral
c. oblique
d. lumbosacral spot
...B...
195. Contraction of which muscle groups keeps the pelvis horizontal when the body weight is shifted to one leg?
a. flexors
b. adductors
c. abductors
d. rotators
...C...
196. A 55 year old Caucasian male presents with low back pain which wakes him up at night. There is a 10° lateral antalgia. There is no history of trauma. The patient can't afford anything. Which test would be most diagnostic?
a. SMAC
b. CBC
c. plain film
d. CT scan
...C...
197. Which of the following is characterized by painful red tender nodules in the legs?
a. Reiter's syndrome
b. tabes dorsalis
c. erythema nodosum
d. diabetes mellitus
...C...
198. A 47 year old woman presents with heel pain of six months duration. Upon examination a calcaneal spur is noted with inflammation. Which of the following supportive therapies would be least effective;
a. ultrasound
b. fluidotherapy
c. vibrotherapy
d. interferential
...C...
199. Nerve compression of which spinal levels causes weakness to the intrinsic muscles of the foot and bladder incontinence?
a. L3-4
b. L4-5
c. L5-S1
d. S1-2
...D...
200. What physical finding would not be evident in a patient with cirrhosis of the liver?
a. clubbing of the fingers
b. cafe-au-lait spots
c. spider angioma
d. testicular atrophy
...B...
201. What would be the prescribed method of treatment for a patient who presents with a positive Codman's sign?
a. lumbo-pelvic roll
b. biceps curls
c. fingers walk up wall
d. pelvic tilt
...C...
202. Gallstones can be seen on a lateral radiograph at the level of?
a. T10-L1
b. T12-L1
c. L2-L3
d. L4-5
...C...
203. A person with TRUE VERTIGO experiences;
a. lightheadedness with faintness and dizziness.
b. sensation of movement of his/her body
c. weakness or decrease in maximum muscle contraction
d. disorientation with giddiness
...B...
204. A 35 year old male presents with back pain radiating down the right thigh, leg and dorsal surface of the right foot. It is more painful to sit. Straight leg raiser is (+), Braggard's is (+), Well-leg raiser is (+), Valsalva's is (-), Bechterew's is (+). What is the most likely diagnosis?
a. facet syndrome
b. L4-5 disc prolapse
c. L5-S1 disc prolapse
d. piriformis syndrome
...B...
205. In which condition would one not expect to see an increased erythrocyte sedimentation rate?
a. rheumatic fever
b. osteoarthritis
c. tuberculosis
d. multiple myeloma
...B...
206. A subluxation of an anomalous spinal or pelvic segment is classified as a _____ subluxation.
a. pathological
b. traumatic
c. defect
d. reflex
...C...
207. Ischemic necrosis due to trauma or infection usually affects;
a. styloid process
b. olecranon process
c. scaphoid
d. capitate
...C...

208. A patient presents with moderate pain on weight bearing. What grade sprain would this be?
a. I
b. II
c. III
d. IV
...A...
209. A young boy presents with acute torticollis and left SCM sprain of three weeks duration. Which of the following modalities is contraindicated?
a. muscle stimulation to the affected side
b. TENS to the affected side
c. cold packs
d. massage and passive range of motion
...A...
210. What would be the most appropriate test for a 40 year old male who presents with corneal arcus senilis upon eye examination:
a. ESR
b. CBC
c. SMAC
d. lipid cells
...D...
211. Which of the following urinalysis findings would be evidence of physiological breakdown of tissue?
a. chloride
b. cholesterol
c. bilirubin
...C...
212. A break in Hadley's "S" curve is indicative of;
a. sprain
b. spondylolysis
c. spondylolisthesis
d. subluxation
...D...
213. A female basketball player landed on another player's foot. There is lateral swelling and ecchymosis anterior to the lateral malleolus. The patient has pain with inversion and plantar flexion. What type of sprain is this likely to be?
a. axial compression
b. inversion
c. eversion
d. rotational
...B...
214. What ligament is most likely involved?
a. anterior talofibular
b. posterior talofibular
c. tibiofibular
d. calcanea-fibular
...A...
215. After injury to an ankle, what is most likely to eventually happen to the joint?
a. ankylosis
b. re-injury of the ankle
c. degenerative joint disease of the ankle
...B...
216. Which of the following involuntary movements is associated with psychological illness?
a. chorea
b. tics
c. athetosis
d. dystonia
...B...
217. What is the radiographic distortion that occurs when you increase the object to film distance?
a. umbra
b. penumbra
c. magnification
d. resolution
...C...
218. A 19 year old female presents with a 2 day history of fatigue, sore throat, and poor appetite. She has throbbing headaches with no visual disturbances, a temperature of 102°, and has slept a lot. Based on the available information, which of the following is most likely?
a. streptococcal infection
b. CNS infection
c. mononucleosis
d. viral infection
...C...
219. Which would be the best test to perform next?
a. CBC
b. ESR
c. urinalysis
d. full spine radiograph
...A...
220. Laboratory findings reveal urinalysis is normal. ESR is elevated, x-rays are negative for pathology. The CBC shows a normal RBC count: 70% segmented neutrophils, 25% lymphocytes, 4% monocytes, 1% eosinophils, and 0% basophils. Which of the following would be the next best course of action?
a. refer to the family physician
b. refer to a neurologist
c. recommend bed rest and fluids
...C...
221. Which of the following would not be a factor in a patient with scoliosis?
a. Cobb's
b. Risser's
c. chronological age
d. Harrington factor
...C...
222. Acute respiratory disorder was of viral etiology due to the absence of:
a. night sweats
b. purulent sputum
c. muscle aches
d. dyspnea
...B...
223. A patient presents with low back pain and right leg sciatica. The straight leg raise test is (+) at 30°, but (-) at 60°. This would be most indicative of?
a. L4-5 disc
b. sacroiliac problem
c. sciatic neuritis
d. prostatic hypertrophy
...B...
224. A solitary pulmonary nodule 1 cm. in diameter with a calcium nidus in the center is most likely?
a. bronchial carcinoma
b. cyst
c. granuloma
d. hamartoma
...D...
225. A pseudo spondylolisthesis is caused by;
a. bilateral break in the pars
b. disc degeneration
c. hypolordosis
d. decompression laminectomy
...B...
226. An elderly patient has vertigo with caloric stimulation. The recommended course of care would be to give the patient;
a. collar
b. cane
c. wheelchair
...C...
227. An absence of the red reflex may be suggestive of?
a. glaucoma
b. myopia
c. cataract
...C...
228. Creatine phosphokinase levels may be increased with?
a. hypervitaminosis C
b. prolonged muscle use
c. angina pectoris
...B...
229. Which of the following is the most commonly used method of measurement for scoliosis?
a. Lovett's
b. Cobb's
c. Mayo's
d. Ferguson's
...B...
230. Which area of the spine may be the most progressive in a patient with an idiopathic scoliosis?
a. cervical
b. thoracic
c. thoraco-lumbar
d. lumbar
...B...
231. A careful analysis of the upper cervical regions necessary before adjusting a patient with;
a. hyperthyroidism
b. hypothyroidism
c. mongolism
...C...
232. The wrist in a patient with carpal tunnel syndrome should be taped;
a. in flexion at the radius and ulna
b. in extension
c. neutral
...C...
233. A patient has a left scoliosis with the spinouses rotated to the left. The involved segment has an open wedge on the left. What is the proper contact point on this segment?
a. left mamillary
b. right mamillary
c. spinous
d. left transverse
...C...
234. Which of the following is an avascular necrosis of the distal femur?
a. Kienbock's
b. Kohler's
c. Osgood-Schlatter's
d. osteochondritis dissecans; Koenig's
...D...
235. A female patient presents complaining of having to urinate 10-15 times a day. She states that it varies but seems to be worsening. She recently took a trip where it did not occur. She notes that she doesn't need to get up at night. This is most likely:
a. diabetes insipidus
b. diabetes mellitus
c. psychogenic polyuria
...C...
236. An increase in the number of platelets is known as;
a. thrombocytosis
b. thrombocytopenia
c. leukocytosis
d. leukopenia
...A...
237. The characteristic pain pattern of costovertebral involvement is:
a. pain central to the chest
b. follows the ribs anteriorly
c. follows the slope of the intercostal spaces
...C...
238. A patient presents with yellow patches in the mouth. This would be most characteristic of:
a. candidiasis
b. rubella
c. rubeola
d. aphthous ulcer
...D...
239. The patient is seated. The doctor rotates the patient's head 45° and holds it in that position for 15-40 seconds. The doctor observes the patient for evidence of nystagmus, dizziness, and nausea. The name of this test is;
a. Adson's
b. Eden's
c. Wright's
d. Maigne's
...D...
240. With the patient supine the doctor places one hand under the lumbar spine and lifts the patient's leg while palpating the low back. This procedure is known as;
a. Hibb's
b. Lasegue's
c. Goldthwait's
d. Gaenslen's
...C...
241. A patient has a normal Thyroid Stimulating hormone with a decreased T3 and T4. What test should be done next?
a. thyroid
b. adrenals
c. basal metabolic rate
...A...
242. A male patient presents with low back pain and a (+) Burns Bench test. Which would be the correct diagnosis?
a. lumbosacral strain-sprain
b. lumbar lesion
c. sciatic neuralgia
d. malingering
...D...
243. Which of the following conditions may give a false (+) for rheumatoid arthritis?
a. Reiter's syndrome
b. osteoarthritis
c. ankylosing spondylitis
d. SLE
...D...
244. A patient has rheumatoid arthritis symptoms (described). How would you differentiate Rheumatoid arthritis from SLE?
a. ASO titre
b. anti-nuclear antibody
c. sedimentation rate
d. HLA-B27
...B...
245. A 17 year old male fell from a motorcycle and has paralysis of the upper arm with difficulty in abducting the arm and has anesthesia?
a. bilateral transverse fracture
b. avulsion of the radial nerve
c. hangman's fracture
d. compression fracture
...B...

246. A 24 year old female presents with recurrent episodes of right shoulder pain that is getting progressively worse. There is no history of trauma. She works in a meat packing plant and is constantly placing meat on the shelves. There is no edema, no visible masses in the shoulder, she has pain on active abduction of the right arm, but none with passive range of motion. What is the best diagnosis she has chronic tendinitis?
a. ultrasound (and or ice packs)
...A...
247. A condition of ischemic necrosis that usually involves the articular surface of the medial condyle of the femur is?
a. Kienbock's
b. Freiberg's
c. Legg-Calve-Perthes
d. osteochondritis dessicans
...D...
248. There is a small radiolucent area with cortical thickening less than 7 cm in diameter surrounded by a large dense sclerotic area of thickening and subtle periosteal reaction.
a. osteoma
b. osteochondroma
c. osteoid osteoma
d. unicameral bone cyst
...C...
249. A patient with cirrhosis of the liver is likely to also get diabetes mellitus, bronze skin and;
a. hemochromatosis
b. cholelithiasis
c. cholecystitis
...D...
250. Which of the following systems is most commonly affected by an acute whiplash injury?
a. vestibular system (inner ear CN VIII)
b. cranial nerve X
c. cervical sympathetics
d. cranial nerve XI
...C...
251. Pain occurs contralateral to the side of the lesion and increases with mental stress, and is described as burning, and gnawing. This is suggestive of;
a. thalamic problem
b. visceral
c. nerve root
d. peripheral nerve
...A...
252. The most common cause of left ventricular hypertrophy;
a. mitral stenosis
b. pulmonary hypertension
c. systemic hypertension
d. aortic stenosis
...C...
253. A patient with prostatic hypertrophy will present which of the following signs or symptoms?
a. constipation
b. nocturia
c. polyuria
d. pyuria
...B...
254. A 36 year old patient presents with low back pain that radiates into the left buttock, and normal left oblique extension of trunk, increased pain, left Laseque's positive at 40°, Nachlas is positive, deep tendon reflexes are normal, Braggard's is negative, no thecal pressure, x-rays are negative for lumbo-pelvic pathology. What would be your diagnosis?
a. facet capsulitis
b. canal stenosis
c. piriformis syndrome
d. prolapsed disc
...A...
255. After a motor vehicle accident, a patient had weakness and numbness in the lower extremities for a day. Today the patient only has tingling in the upper extremities. What is the most likely injury?
a. cervical root
b. cervical central canal
c. thoracic root
d. lumbar root
...B...
256. Which of the following signs would you not want to adjust?
a. pain down the entire leg
b. pain in the nerve root goes from local to distal
c. mild discomfort
...B...
257. To feel heat as a burn must be at what temperature?
a. 23° C
b. 37° C
c. 42° C
d. 45° C
...D...
258. Curschmann's spirals, and Charcot-Leyden crystals;
a. asthma
b. bronchogenic carcinoma
c. bronchitis
d. bronchial pneumonia
...A...
259. Which imaging method would be best to confirm lateral canal stenosis
a. x-ray
b. CT scan
c. bone scan
d. MRI
...A...
260. Patient presents with bronchophony, egophony, and whispered pectoriloquy;
a. consolidation
b. emphysema
c. bronchitis
d. pulmonary edema
...A...
261. A 65 year old female presents with ringing of the ears. Symptoms began a few months ago and became progressively worse. The past history includes German measles, mumps, and pneumonia, whiplash injury some years ago with no sequela. Presently she has been under care for acute laryngitis, recent treatment includes ultrasound, analgesic balm, and two aspirin every three hours. The condition has not markedly improved. What is responsible for the patient's presenting symptoms?
a. aspirin
b. German measles
c. ultrasound
d. antibiotic therapy
...A...
262. A swollen, shiny appearance on the front lower leg with tightness and tenderness of the muscles along the shin and weakness of dorsiflexion of the foot are associated with?
a. anterior compartment syndrome
b. shin splints
c. tarsal tunnel
d. meralgia paresthetica
...A...
263. The method of heating an extremity by applying thermal energy to the other side is known as;
a. convection
b. conduction
c. radiation
d. reflex
...D...
264. In a case of the correction of a lumbar subluxation, which of the following would be the least favorable contact point?
a. transverse process on the side of spinous rotation
b. spinous process on the side of spinous rotation
c. mamillary process on the side of body rotation
...A...
265. What type of pain is described as "diffuse and achey" and is exacerbated by stress?
a. visceral
b. somatic
c. nerve root
d. vascular
...B...
266. The cotton wisp test to the eye tests for which nerve?
a. III
b. IV
c. V
d. VI
...C...
267. What is the name of the fracture in which one segment is driven into the adjacent segment?
a. comminuted
b. impaction
c. compound
d. torus
...B...
268. What would be the most important case history question with a child with an idiopathic scoliosis?
a. past history of infection
b. malabsorption syndrome
c. father has a history of a transitional segment
d. mother and aunt had scoliosis
...D...
269. Ipsilateral facial spasm which occurs upon tapping in the area of the parotid gland is suggests;
a. impacted molar
b. low calcium tetany
c. abscess
d. Bell's palsy
...B...
270. In Chvostek's test you tap the face with your fingers in the area of which cranial nerve?
a. III
b. V
c. VII
d. X
...C...
271. Which modality is least likely to cause burns?
a. hydrocollator
b. ultrasound
c. ultraviolet
d. infra-red
...B...
272. Which of the following predisposes a patient to traumatic splenic rupture?
a. mononucleosis
b. nephrolithesis
c. streptococcal sore throat
d. appendicitis
...A...
273. A 59 year old male with a history of diabetes, and generalized osteoarthritis presents with low back pain of one month duration. He has been diagnosed as having a psosas syndrome and he is being treated with antibiotics for a middle ear infection. Which of the following would be the most appropriate treatment for this psosas problem?
a. condenser S.W. diathermy
b. ultraviolet
c. infra-red
d. high volt galvanic
...D...
274. Which of the following will occur with a Schilling shift to the left;
a. increased neutrophils, decreased lymphocytes
b. increased lymphocytes, decreased neutrophils
c. increased segs, decreased bands
d. increased bands, decreased segs
...D...
275. A 26 year old female presents with a history of thoracic outlet syndrome. The symptoms are elicited with range of motion of the shoulder especially with abduction and hyperextension. Radiographs reveal absent cervical ribs and elongation of the transverse process of C7. Where is the likely area of occlusion?
a. anterior scalenes
b. pectoralis minor
c. costoclavicular
d. scapulo-costal
...B...
276. The patient stands with his body rotated 45° to the Bucky, with the anterior aspect of his right shoulder closest to the film. What structures will best be visualized?
a. right IVF, right pars
b. right IVF, left pars
c. left IVF, right pars
d. left IVF, left pars
...B...
277. An obese male presents with long standing pain in the stomach which gets worse if he eats after 5 P.M.. He states that he has discomfort a few seconds after swallowing. He has taken aspirin for a long time. Examination reveals an elevated blood pressure, increased respiration and heart rate. Laboratory findings reveal a microcytic, hypo-chromic anemia, Which is diagnostically relevant of upper GI problems?
a. fresh blood in the stool
b. pain is worse in the left lateral decubitus position
c. occult blood in the stool.
...C...
278. Which test would be diagnostic?
a. barium swallow

279. The dysphagia may be suggestive of?
a. cardiomegaly
b. hiatal hernia
c. sideropenic dysphagia
...C...
280. Which of the following conditions will have normal lab findings?
a. juvenile osteochondrosis
b. rheumatic arthritis
c. ankylosing spondylitis
d. systemic lupus erythematosus
...A...
281. Calcium and _____ may lead to kidney and bladder stones?
a. oxalic acid
b. fat
c. protein
d. phytic acid
...A...
282. Which of the following muscle groups is the major abductor of the hip?
a. gluteus maximus
b. gluteus medius
c. gluteus minimus
d. tensor fascia lata
...B...
283. The Risser jacket is used in the treatment of;
a. hip dislocation
b. scoliosis
c. pelvic fracture
d. thoracic compression fracture
...B...
284. At what spinal level can the hyoid bone be palpated?
a. C1
b. C3
c. C5
d. C7
...B...
285. Which of the following vitamin intoxication syndromes may result in an increased WBC count and an increased ESR?
a. Vitamin A
b. Vitamin B
c. Vitamin C
d. Vitamin D
...D...
286. Which lab value would be increased in acute pancreatitis?
a. CPK
b. serum amylase
c. LDH
d. bilirubin
...B...
287. While standing in the upright position, if you laterally bend to the left, you would be in _____ plane, and what axis?
a. frontal, horizontal
b. horizontal, horizontal
c. horizontal, vertical
d. sagittal, vertical
...A...
288. A sudden paroxysmal spasm of an artery or an arteriole of an extremity usually causes pain, pallor, coldness, numbness and _____;
a. swelling
b. mottling
c. spasm
d. paralysis
...D...
289. Gross inspection of the eye during physical examination will most likely reveal;
a. papilledema
b. myopia
c. retinitis
d. cataracts
...D...
290. The increase in internal organ output immediately following a chiropractic adjustment would be due to;
a. increase in blood flow
b. somato-visceral response
c. visceros-somato response
...B...
291. A 72 year old male presents with a six month history of difficulty sleeping due to pain in the area of the ribs. Radiographs are negative for pathology and examination findings are negative. He has a history of prostatic cancer 5 years ago, which has been successfully treated. What is the next course of action?
a. MRI
b. radionuclide scan
c. nerve tracing
d. CAT scan
...B...
292. Pale or clay colored stools would be an indication of;
a. upper GI tract bleeding
b. lower GI tract bleeding
c. lack of bile pigments
d. constipation
...C...
293. A 14 year old female presents with sudden onset of epigastric pain which started in the right lower quadrant. She also complains of anorexia, nausea and vomiting. Examination reveals hypersensitivity of the skin and muscle rigidity in the abdominal region. Rectal exam reveals swelling and pain on the right, but no blood is seen on the finger. The WBC count is 17,000, and the pain is not relieved by passing gas. The probable diagnosis would be;
a. Crohn's
b. appendicitis
c. diverticulitis
d. colitis
...B...
294. A doctor should begin to suspect an arterial obstruction or insufficiency when the difference between the right brachial systolic pressure and the left brachial systolic pressure exceeds _____ mm Hg.
a. 0-5
b. 10-15
c. 20-25
d. 30-35
...B...
295. During palpation of the cervical spine, the carotid tubercles can be located at the _____ aspect of the _____ transverse process.
a. anterior; C-4
b. posterior; C-5
c. anterior; C-6
d. posterior; C-7
...C...
296. What exercises should be used on a patient with vascular claudication of the lower extremities?
a. Codman's exercises
b. Buerger-Allen's exercises
c. isokinetic exercises
d. Délorne exercises
...B...
297. A male patient presents with retrosternal pain which is radiating to the jaw. Which of the following enzymes will be elevated first in the serum of this patient?
a. CPK
b. AST
c. LDH
d. SGPT
...A...
298. What would be the most important management instructions for a 17 year old male with ankylosing spondylitis?
a. spinal bracing
b. nutrition therapy including increase ca++ and protein
c. deep breathing exercises
d. referral to a medical doctor
...C...
299. Which of the following would be an absolute contraindication for SW diathermy?
a. hiatal hernia
b. prostatitis
c. cardiac pacemaker
d. breast implant
...C...
300. A 30 year old computer operator has tingling and achiness in the hands and forearms after prolonged driving or holding her hands above her head. Examination reproduces symptoms in abduction and external rotation of the arm. X-rays reveals a normal C7 transverse process. Where is the likely area on neurovascular compression?
a. first rib and clavicle
b. anterior and medial scalene
c. pectoralis minor
d. transverse process of C7
...C...
301. Which of the following offers the best prognosis for a patient under chiropractic care?
a. isthmic spondylolisthesis
b. S-I dysfunction
c. lateral canal stenosis
d. lumbar disc syndrome
...B...
301. The lesion of herpes simplex is considered to be;
a. pustule
b. vesicle
c. papule
d. macule
...B...
302. Egophony, whispered pectoriloquy, and bronchophony will be heard in which of the following conditions?
a. pulmonary edema
b. emphysema
c. lobar pneumonia
d. emphysema
...C...
303. What orthopedic test should be performed in the diagnosis of sub-acute facet imbrication?
a. Kemp's
b. Ober's
c. Hibb's
d. Braggard's
...A...
304. A 40 year old male presents with constant pain in the right foot upon weight bearing. The pain is increased with dorsiflexion of the foot. Tender-ness and slight swelling along the medial aspect of the calcaneus. What is the most likely cause?
a. plantar fasciitis
b. plantar neuroma
c. anterior compartment syndrome
d. stress fracture
...A...
305. Which has the best prognosis and will respond most favorably to abdominal breathing exercises?
a. asthma
b. tuberculosis
c. pulmonary embolism
d. emphysema
...D...
306. Diabetic patients are most likely to develop neuropathy in which of the following nerves?
a. median
b. radial
c. femoral
d. sciatic
...C...
307. A 19 year old female presents with a two week history of light-headedness, and the sensation of pins and needles in both hands, both feet, and around the mouth. What is the most likely cause?
a. otitis media
b. Meniere's
c. hyperventilation
d. labyrinthitis
...C...
308. Which of the following structures is common to all areas of the spine?
a. costovertebral facets
b. transverse foramen
c. bifid spinous process
d. vertebral arch
...D...
309. The condition of "snapping hip" is associated with which muscle?
a. quadriceps
b. tensor fascia lata
c. sartorius
d. gluteus medius
...B...
310. A person not accustomed to exercise goes out and over-exercises. The muscles will be painful in the _____ hours post exercise and remiss _____ days from post exercise.
a. 1-6; 15-28
b. 6-12; 7-14
c. 12-24; 5-7
d. 24-72; 3-5
...D...
311. Which of the following tests would be performed to differentiate an anatomical deficiency between the tibia and the femur?
a. Hibb's
b. Allis'
c. McMurray's
d. Apley's
...B...

312. What is the spike labeled 1 in the diagram below;



- a. S-T segment
 - b. P wave
 - c. T wave
 - d. Q wave
 - e. inverted R wave
- ...D...

313. In performing a physical examination, which of the following vascular structures can give you information regarding the function of the right side of the heart?

- a. internal hemorrhoidal veins
 - b. internal jugular veins
 - c. radial artery
 - d. femoral artery
- ...B...

314. Auscultation at the periphery of the lung fields yields _____ sounds.

- a. bronchovesicular
 - b. egophony
 - c. vesicular
 - d. resonant
- ...C...

315. Which of the following questions in the case history would be relevant in a patient with a psycho-social condition?

- a. Do you like to sail?
 - b. What do you do for fun?
 - c. What do you think of people who have hobbies?
 - d. What are your hobbies?
- ...C...

316. Which of the following conditions is characterized by a pain which reaches its peak intensity at its onset?

- a. dissecting aneurysm
 - b. peptic ulcer
 - c. muscle spasm
 - d. myocardial infarction
- ...A...

317. Which of the following conditions may predispose the patient to splenic rupture?

- a. tonsillitis
 - b. appendicitis
 - c. mononucleosis
 - d. nephrolithiasis
- ...C...

318. The most common complaint of temporomandibular joint dysfunction is;

- a. excessive salivation
 - b. recurrent headaches
 - c. extremity pain
 - d. difficulty swallowing
- ...B...

319. Hodgkin's disease, brucellosis, lung abscess and bacterial endocarditis have which of the following symptoms in common?

- a. skin rash
 - b. nocturnal sweating
 - c. jaundice
 - d. hypoglycemia
- ...B...

320. Which of the following would be the main consideration when taking radiographs?

- a. amount of exposure per film
 - b. amount of exposure per series
 - c. patient age
 - d. clinical importance to the patient
- ...D...

321. During examination of a male patient, Soto-Hall was performed. He experienced a transient "electric" shock down his back and into his upper and lower extremities. This response is likely due to;

- a. vertebral fracture
 - b. vertebral artery occlusion
 - c. multiple sclerosis
 - d. scalenus anticus syndrome
- ...C...

322. A patient with strain of the lumbar musculature will be aggravated by which position or motion?

- a. sitting still
 - b. standing still
 - c. lying on their side
 - d. active trunk motion
- ...D...

323. Upon exam, a male patient exhibits periorbital edema and a puffy face. He also has dry skin, hair loss and thinning of the lateral aspect of the eyebrows. Which system should be evaluated next?

- a. cardiovascular
 - b. endocrine
 - c. nervous
 - d. respiratory
- ...B...

324. A 26 year old female swimmer presents with low back pain. X-rays reveal a stable Grade 2 spondylolisthesis. What would be the recommended course of action?

- a. chiropractic adjustments
 - b. abdominal muscle strengthening
 - c. refer to an orthopedist for evaluation and possible fusion
 - d. brace and limit activity
- ...A...

325. A 46 year old female presents with a history of rheumatoid arthritis. What is your next course of action in the exam of this patient?

- a. serum chemistry and urinalysis
 - b. Soto-Hall and Kernig's tests
 - c. specific upper cervical adjustment
 - d. neutral lateral and A-P cervical
- ...D...

326. What is the innervation of the posterior longitudinal ligament and the ligamentum flavum?

- a. long thoracic
 - b. sinu-vertebral nerve
 - c. thoraco-dorsal nerve
 - d. Wrisberg's nerve
- ...B...

327. Which of the following atlanto-axial ligaments is the strongest.

- a. alar
 - b. transverse
 - c. apical
 - d. capsular
- ...B...

328. Which of the following conditions may be a cause of a localized edema?

- a. myxedema
 - b. cellulitis
 - c. serum ?
 - d. histamine
- ...D...

329. The nerve root of the thoracic level that innervates the areola?

- a. T-2
 - b. T-4
 - c. T-6
 - d. T-7
- ...B...

330. Which of the following cells are the most radiosensitive?

- a. chondrocytes
 - b. lymphocytes
 - c. neurons
 - d. osteocytes
- ...B...

331. A 30 year old female presents with a history of urinary incontinence, intermittent blurring of the right eye. She has had these symptoms three times in the last several months. Physical exam reveals a reeling gait. positive Romberg's. loss of proprioception in the left lower extremity including the knee and an increase in the lower extremities deep tendon reflexes.

- a. myasthenia gravis
 - b. tabes dorsalis
 - c. multiple sclerosis
 - d. amyotrophic lateral sclerosis
- ...C...

332. Which of the following conditions is inversion therapy a contraindication?

- a. renal calculi
 - b. cervical spondylosis
 - c. uncontrolled hypertension
- ...C...

333. In multiple sclerosis, which of the following is the most common tremor?

- a. resting
 - b. intention
 - c. postural
 - d. asterixis
- ...B...

334. On a radiograph, thickness of a body part is known as;

- a. subject density
 - b. subject contrast
 - c. radiographic density
 - d. radiographic contrast
- ...A...

335. A forty-five year old female obese with flatulence complains of pain in the right chest area and right shoulder.

- a. stomach cancer
 - b. pancreatitis
 - c. cholecystitis
 - d. pyelonephritis
- ...C...

336. A male patient presents with a history of chronic low back pain. He has loss of pain and temperature sensation in both legs. He also demonstrates swollen ankles and no vibration or position sense in the lower extremities. Positive Romberg's sign. He has painless bruises which do not hurt but are slow to heal. He has small irregular pupils and no direct or consensual reflexes, and foot drop. What is the most likely diagnosis?

- a. encephalitis
 - b. multiple sclerosis
 - c. tabes dorsalis
- ...C...

337. What is the laboratory study that should be performed?

- a. ESR
 - b. VDRL
 - c. cephalin flocculation
- ...B...

338. What is the name of the pupil response?

- a. arcus senilis
 - b. meiosis
 - c. Kayser-Fleischer ring
 - d. Argyll-Robertson pupil
- ...D...

339. What area of the neurological system is likely to be the involved component?

- a. thalamus
 - b. hypothalamus
 - c. dorsal column
 - d. corpus callosum
- ...C...

340. What is the most common primary malignancy of bone?

- a. osteoblastic metastatic carcinoma
 - b. multiple myeloma
 - c. osteosarcoma
 - d. Ewing's sarcoma
- ...B...

341. What would be your treatment of choice for a patient with lateral epicondylitis?

- a. ultrasound
 - b. pulsed ultrasound and transverse friction massage
 - c. infrared
 - d. effleurage
- ...B...

342. A patient presents with pain in the distal foot upon dorsiflexion and when standing on their toes. There is callous formation at the ball of the foot. Which of the following is the most likely dislocation

- a. proximal metatarsal
 - b. inferior proximal
 - c. superior proximal metatarsal
 - d. lateral cuboid
 - e. inferior distal metatarsal
- ...E...

343. A person presenting with a steppage gait may have weakness of which muscle.

- a. gastrocnemius
 - b. rectus femoris
 - c. posterior tibialis
 - d. anterior tibialis
- ...D...

344. Which segmental level may refer pain to the area of the TMJ?

- a. occiput-C1
 - b. occiput-C2
 - c. C3-C5
 - d. C6-C7
 - e. T1-T2
- ...B...

345. Which spinal level may be involved in a patient with pain on the area of the spine radiating to the flank?

- a. lower cervical
 - b. lower thoracic
 - c. upper lumbar
 - d. lower lumbar
- ...B...

346. A patient with retrotracheopharyngitis will develop which type of cough?
a. dry
b. barking, harsh and painful
c. deep, thick and purulent discharge
...B...
347. A 28 year old female presents with severe pelvic pain, anorexia, nausea, vomiting, fever and bleeding. Which of the following is likely to be related to the patient's condition?
a. previous abortion two weeks ago
b. multiple sex partners for the past several years
c. muscle imbalance with tonicidity
d. sacral pressure followed by boring pain
...A...
348. The sequence of degenerative joint disease in the spine is:
a. stability, instability, dysfunction
b. instability, dysfunction, stability
c. stability, instability, dysfunction
d. dysfunction, instability, stability
...D...
349. Which of the following questions in the case history would be likely to obtain an accurate, unbiased patient response?
a. What kind of stools do you have?
b. What do your stools look like?
c. What color are your stools?
d. Do you look at your stools?
...D...
350. Which of the following findings would be consistent in a patient presenting with pulmonary emphysema?
a. increase fremitus
b. hyper-resonant
c. moist rales
d. rhonchi
...B...
351. A 60 year old plumber presents with a sore on his lower lip which has been present for the past six months. The lesion is elevated and pink, with atrophic changes of the surrounding skin. The lesion occasionally bleeds?
a. adenocarcinoma
b. aphthous ulcer
c. herpes simplex
d. squamous cell carcinoma
...D...
352. Which of the following will cause the greatest increase in the leukocyte count?
a. aseptic meningitis
b. viral meningitis
c. Eastern equine encephalitis
d. pyogenic meningitis
...D...
353. The innervation to the skin and the deep muscles of the back is;
a. anterior primary rami
b. posterior primary rami
c. sinu-vertebral nerve
d. anterior horn
...B...
354. Which of the following conditions may cause an alteration of the blood cell count?
a. fibrositis
b. tenosynovitis
c. polymyositis
d. myositis
...C...
355. A 49 year old male presents with pain in the chest, cough and dyspnea. Examination of the patient reveals a high pulse pressure, blood pressure is 179/105, and a heart rate of 90 beats per minute. The patient also demonstrates an increased diaphragmatic excursion, and auscultation reveals an apical rumbling diastolic opening snap;
a. pre-cordial effusion
b. pulmonary edema
c. decreased blood volume
d. mitral stenosis
...D...
356. When in the standing position, anterior and posterior swaying is prevented by which groups of muscles?
a. quadriceps and hamstrings
b. soleus and tibialis anterior
c. rectus abdominus and erector spinae
...B...
357. An 80 year old female has a 56° scoliosis. Which of the following is the most important or relevant point in the management of her case?
a. Chiropractic care to minimize the progression
...A...
358. Which of the following muscles is likely to be weakened in a patient who presents with a sunken chest and rounded shoulders?
a. deltoid
b. biceps
c. pectoralis minor
d. serratus anterior
...A...
359. Pressure on the patient's eyeball may cause which of the following?
a. increased cardiac output
b. increased heart rate
c. decreased paroxysms of atrial tachycardia
d. decreased ventricular fibrillation
...C...
360. What would be the recommended course of treatment for a patient with a traction injury of the brachial plexus?
a. hydrocollator
b. arm sling
c. cervical traction
d. Codman's exercises
...B...
361. Which of the following may remain for years in a child of 2-3 years of age with extensive "toeing-in"?
a. pes cavus
b. femoral anteversion
c. talipes equino-varus
d. genu varum
...B...
362. Which of the following is the most commonly injured ligament of the knee?
a. posterior cruciate ligament
b. lateral collateral
c. medial collateral
d. lateral meniscus
...C...
363. What is the most common injury to the rotator cuff muscles?
a. muscular injury
b. ligamentous injury
c. rotator cuff tear
d. supraspinatus calcification
...D...
364. Motion that occurs along two axes is known as;
a. creep
b. circumduction
c. coupling
...C...
365. Most modern pregnancy tests, utilize the detection of which?
a. urinary casts
b. estrin
c. human chorionic gonadotropin
...C...
366. A female patient presents with several episodes of headaches over recent months. The head-aches localize to the right temporal and TMJ area. She occasionally has pain in the shoulder, hip, and knee. Which laboratory study would be most relevant in her case?
a. RA latex
b. ANA
c. ESR
...C...
367. A female presents with bulging eyes, dysphagia, nervous tremors, visual problems (blurred vision) and weight loss. Which area of the case history would be most significant?
a. dietary habits
b. review of systems
c. family history
d. social history
...B...
368. A 20 year old female presents with pain which is localized and deep to the buttocks which does not radiate. Lasègue's and Brag-gard's are negative and there are no additional neurological findings. She states that she was carrying her 18 month old child across the street when she turned and twisted her leg. What is your initial diagnosis?
a. I.V.D. syndrome
b. facet syndrome
c. piriformis syndrome
...B...
369. A 28 year old female has a history of low grade fever and a reddish discoloration over the cheeks. She has joint pain, and the affected joints are red and swollen. Which blood study would be most applicable in her case?
a. RA latex
b. ASO titre
c. ANA
...C...
370. Which of the following conditions may be initially confused with a thoraco-lumbar strain?
a. renal calculi
b. peptic ulcer
c. cholecystitis
...A...
371. A 22 year old recently married female presents complaining of urinary urgency and frequency. She notes that she has burning sensation on urination. Examination reveals tenderness in the suprapubic area and urinalysis reveals a mild hematuria and pyuria. What is the likely diagnosis?
a. pregnancy
b. acute cystitis
c. appendicitis
...B...
372. A patient presents with a history of thyroid problems and a mass in the neck. Which of the following would be consistent with a thyroid problem?
a. at the level of the hyoid and moves with swallowing
b. slightly below the thyroid at the level of C6 1 cm lateral to the midline and 1 cm lateral to the thyroid
c. lateral to the SCM
d. draining, purulent lesion
...B...
373. A 20 year old female presents with a recent history of bleeding gums. She has purpural lesions of the skin and an oozing, purulent lesion in the ante-cubital fossa after a recent venipuncture. Radiographs are negative for pathology. Lab; RBC-4.2 million/mm³, WBC-7,000/mm³, thrombocytes- 4000/mm³. Her family history is negative for similar findings. Which of the following is likely to be related to her condition?
a. drug exposure
b. chemical exposure
...A...
374. Which of the following is likely to be the cause of her condition?
a. idiopathic thrombocytopenia
b. leukemia
c. pernicious anemia
...A...
375. What would be the recommended management of the patient?
a. bed rest
b. continue treatment and determine the cause of the bleeding
c. adjust and re-evaluate two weeks later
d. refer to an internist
...D...
376. An 84 year old woman presents with dizziness, ringing in the ears, and disorientation when she rotates her head to the right. Which would be the most likely cause?
a. cerebro-vascular accident
b. subclavian steal syndrome
c. Meniere's syndrome
d. vertebral-basilar insufficiency
...D...
377. A patient has a (+) George's test. Which movement during the adjustment would not be employed in this patient;
a. extension; rotation
b. flexion; rotation
c. lateral flexion
d. hyperflexion
...A...
378. In lateral canal stenosis of the lumbar spine, which type of movement would alleviate the symptoms the most;
a. flexion; lateral flexion towards the side of pain
b. flexion; rotation away from the side of pain
c. extension; lateral flexion away from the side of pain
d. extension; rotation away from the side of pain
...B...
379. A patient presents with a propulsive gait is likely to have;
a. multiple sclerosis
b. cerebellar disorder
c. Parkinson's disease
d. muscular dystrophy
...C...

380. Which of the following procedures would be used on a patient with acute muscle injury;

- diathermy
- hydrocollator packs
- ice packs
- traction

...C...

381. A patient presents with temporal arteritis. Which of the following would be the most relevant lab tests;

- CBC
- ESR
- cyto-globulin
- LDH

...B...

382. To view the sacral base on the A-P shot what would the tube angulation be;

- 15° caudal
- 15° cephalad
- 20° cephalad
- 30° cephalad

...B...

384. The area indicated in Figure A is most often involved with;



- carpal fracture
- ulnar nerve involvement
- carpal dislocation
- Dupuytren's contracture

...A...

385. When testing the muscle group shown in Figure B, what cord level is involved?



- L1-3
- L4
- L5
- S1

...A...

386. Identify the test demonstrated in Figure C;



- Berry's
- belt test
- Neri's bowing
- Adam's

...D...

387. Identify the condition demonstrated in Figure D;



- Dupuytren's contracture
- swan neck deformity
- claw hand
- Volkman's contracture

...A...

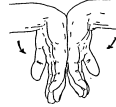
388. Identify the position in Figure E the increases intradiscal pressure the most;



- a.
- b.
- c.
- d.

...D...

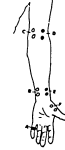
389. Identify the test shown in Figure F;



- Finkelstein's
- Phalen's
- Bunnell-Littler

...B...

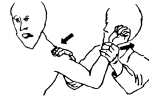
390. The nerve being tested in Figure G;



- median
- axillary
- ulnar
- musculocutaneous

...A...

391. What test is being demonstrated in DIAGRAM A?



- Dugas'
- apprehension test
- Yergason's
- Apley's

...B...

392. Which condition is the doctor testing for in the above procedure (NO DIAGRAM)?

- stenosing bicipital tenosynovitis
- chronic shoulder dislocation
- calcific sub-deltoid bursitis
- frozen shoulder syndrome

...B...

393. At which area of DIAGRAM B, will tophi be found in the ear?



- 1
- 2
- 3
- 4
- 5

...B...

394. The fracture depicted in DIAGRAM C is known as;



- Colles fracture
- hangman's fracture
- clay-shoveller's
- Jone's fracture
- Jefferson's fracture

...E...

395. Which dermatome is being tested in DIAGRAM D?



- C5
- C6
- C7
- C8
- T1

...A...

396. Which best describes the situation depicted in DIAGRAM E?



- spondylolysis
- spondylolysis
- spondylolisthesis
- retroisthesis

...D...

397. DIAGRAM F indicates which of the following;



- decreased disc
- extension subluxation
- IVF encroachment
- flexion subluxation

...C...

398. The condition depicted in DIAGRAM G below suggests involvement of which nerve;



- dorsal scapular
- long thoracic
- suprascapular
- axillary

...B...

399. The line in DIAGRAM I depicts;



- hypolordosis
- hyperlordosis
- retroisthesis
- anterolisthesis

...A...

400. The bow-line of Brailsford sign is indicative of?

- spondylolysis
- spondylolysis
- spondylolisthesis
- retroisthesis

...C...

401. Which areas of the spine should be adjusted in a case of a spastic diaphragm?

- C1
- C2
- C3-5
- C7-T1

...C...

402. Which lumbar vertebra has the smallest spinous process?

- L1
- L2
- L3
- L4
- L5

...E...

403. Which view best demonstrates the cervical pedicles?

- neutral lateral
- AP open mouth
- AP lower cervical
- cervical obliques
- pillar view

...D...

404. Contraction of the abdominal muscles upon stroking the umbilicus is?

- deep tendon reflex
- superficial reflex
- visceral-organic reflex
- pathological reflex

...B...

405. What pulse is most easily palpated in certain cardiac conditions?

- carotids
- radial
- brachial
- ulnar

...A...

406. Weakness of which muscles would cause an increase in the angle D in FIGURE A:



- abdominals
- gastrocnemius
- sacrospinalis
- tensor fascia lata

...A...

407. What condition does this diagram represent?



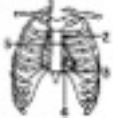
- a. Argyll-Robertson pupil
 - b. Horner's syndrome
 - c. unilateral oculomotor paralysis
 - d. optic nerve paralysis
- ...C...

408. This line is:



- a. Ullmann's
 - b. Shenton's
 - c. Skinner's
 - d. Kohler's
- ...B...

409. Which letter in Figure F corresponds to the Aortic area?



- a. 1
 - b. 2
 - c. 3
 - d. 4
- ...A...

410. Which muscle is the doctor in Figure G palpating?



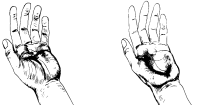
- a. serratus anterior
 - b. latissimus dorsi
 - c. long head of the triceps
 - d. pectoralis minor
- ...B...

411. The doctor in Figure H is testing for:



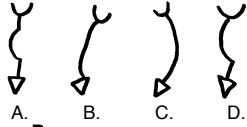
- a. rotator cuff injury
 - b. bicipital tendinitis
 - c. lateral epicondylitis
 - d. sub-acromial bursitis
- ...B...

412. Figure K is a normal representation of a hand, compared with this, what has happened to the hand in Figure L?

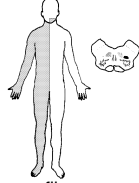


- a. nerve compression atrophy
 - b. vascular atrophy
 - c. nerve compression hypertrophy
 - d. vascular hypertrophy
- ...A...

413. What type of scoliosis would you expect to see with an uncompensated structural short leg?



...B...
414. Identify the area of the sensory deficit:



- a. commissure fibers
 - b. frontal
 - c. cord
 - d. medullary
 - e. sensory cortex
 - f. spinothalamic
- ...F...

415. Arm adduction was weak, sensation to the lateral arm was decreased:



- a. ulnar
 - b. radial
 - c. axillary
 - d. musculocutaneous
- ...C...

416. A 60 year old lady, no history of trauma, decreased disc height, arthritic changes:

- a. psoriatic
 - b. discogenic spondylosis
 - c. ankylosing spondylitis
 - d. arthritis
- ...B...

417. The patient is a 54 year old woman smoker who quit drinking recently. Over the past 15 years she has had depression attacks. Her liver is enlarged, smooth, hard and tender. She has an elevated bilirubin level. The pictured had an arrow to her liver, scratch marks on arm, red marks on her leg deep vein (suggesting thrombophlebitis)

- a. hepatic cirrhosis
 - b. hepatic obstruction
- ...A...

418. bilirubin, urobilinogen indicates hepatic duct blockage

419. She also had itchy skin, pale floating stool, slow gradual weight loss:

- a. diverticulitis
 - b. erythema nodosum
 - c. pancreatic cancer
- ...C...

420. What would be the recommended management in a normal patient with uncomplicated hypertension?

- a. dietary and adjust C1-2
 - b. dietary and normal adjustments
 - c. dietary and George's test before adjusting
- ...C...

421. A person comes in with cervico-dorsal trigger points. Which type of modality would be least effective in eliminating these?

- a. ultrasound
 - b. vibration massage
 - c. cervical traction
 - d. electrotherapy
- ...C...

422. For a patient with acute torticollis you would use:

- a. longitudinal gentle oscillatory movement
 - b. continuous ultrasound
- ...A...

423. A patient presents with a swelling in the scrotum not attached to the testicles. To differentiate between a cystic swelling and a solid mass:

- a. palpate for tenderness
 - b. turn head and cough
 - c. translumination of the scrotum
- ...C...

424. A patient came in with hypochromic microcytic anemia. Serum iron level was low, and fecal Guaiac was positive:

- a. pernicious anemia
 - b. iron deficiency anemia
 - c. hemolytic anemia
 - d. lead poisoning
- ...B...

425. If the opposite knee comes up off the table upon performing the test shown in Diagram A, this would be suggestive of excessively tight;



- a. leg flexors
 - b. hip flexors
 - c. hip extensors
 - d. neck flexors
- ...B...

426. The mechanism of the injury demonstrated in Diagram B is probably due to;

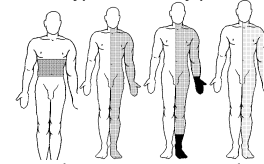


- a. blow to the chin
 - b. flexion/extension injury
 - c. landing on the head from a fall
 - d. rotary adjustment of C1
- ...C...

427. A patient presents with low back pain, all lab and orthopedic tests are negative. Based upon the x-rays in Diagram C, what is your diagnosis?

- a. metastatic carcinoma
 - b. aneurysm
 - c. facet tropism
 - d. spondylolisthesis
- ...B...

428. A lesion of the spinothalamic tract would display which type of sensory pattern?



- a. b.
 - c. d.
- ...B...

429. What would be the diagnosis based upon Diagram E? (No history or exam findings were given).



- a. fibroadenoma
 - b. carcinoma of the breast
 - c. mastitis
 - d. fibrocystic disease
- ...B...

430. The patient is supine with their hands under their head, knees flexed as though about to do a sit-up. What is the test?



- a. Minor's sign
 - b. Beevor's sign
 - c. Adam's
 - d. Tinel's
- ...B...

431. Shenton's line is used for;

- a. femoral neck fracture
 - b. osteochondritis
 - c. congenital dislocation
- ...C...

432. A patient has pain on shoulder abduction. What muscle is involved?

- a. supraspinatus
 - b. infraspinatus
 - c. teres minor
 - d. teres major
- ...A...

433. A patient has pain in the knee associated with exercise?

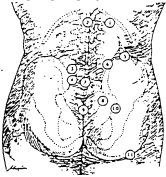
- a. osteochondritis dessicans
 - b. Osgood-Schlatter's
 - c. Legg-Calve-Perthes
 - d. chondromalacia patellae
- ...D...

434. A patient presents with pain under the axilla to the left lateral chest wall. The patient has their arm over their head which decreases the pain. What cord level would be suspected?



- a. C6
 - b. T2
 - c. T4
 - d. T6
- ...B...

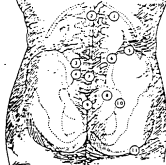
435. Which area would you percuss in a case of kidney involvement?



- a. 1
- b. 2
- c. 3
- d. 4

...A...

436. What points in Diagram M would be tender in a patient with lumbosacral sprain?



- a. 1
- b. 2
- c. 3
- d. 4

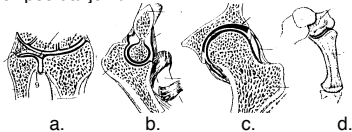
...D...

437. A 60 year old male has a history of metastatic carcinoma. Which segment of the spine has it metastasized to?

- a. C2
- b. C3
- c. C4
- d. C7

...B...

438. Which of the following would be classified as an ellipsoidal joint?



...A...

439. A 23 year old female presents with back pain. She states that about ten days ago she had been horseback riding when she fell. Pain is increased with right lateral bending. The pain radiates to the area indicated in Diagram A. From which of the following areas is the pain NOT likely to be referred from?



- a. thoracic spine
- b. ovaries
- c. sigmoid colon
- d. kidneys

...C...

440. In the above patient which diagnostic test should you perform first?

- a. ultrasound
- b. x-rays
- c. GI series
- d. CBC and UA

...B...

441. If this patient bends to the side of pain and the pain becomes worse, what level of the spine is likely to be involved?

- a. T5-6
- b. T10-11
- c. L2-4
- d. L5-S1

...B...

442. Patient with colicky pain radiating to the right shoulder;

- a. cholecystitis

443. How would you differentiate a superficial from a deep abdominal mass?

- a. patient contracts abdominal muscles

444. How do you palpate the prostate:

- a. anterior wall of the rectum

445. A depressed ST segment and an inverted T wave is seen in:

- a. angina
- b. early MI
- c. old (healed) MI

...C...

446. Golfer's elbow is an inflammation of the flexor tendon at the wrist named:

- a. tendon of the lateral epicondyle
- b. tendon of the medial epicondyle

...B...

447. A young male who appears normal has a 15 year history of episodes of irresistible and uncontrollable bouts of sleep:

- a. narcolepsy

448. A palpable click is elicited on Ortolani's sign. The probable indication is:

- a. reduction of the hip dislocation

449. Bakody's sign. What does it indicate?

- a. nerve root compression

450. The first type of exercise that would be due for a musculoskeletal or joint injury:

- a. active
- b. passive
- c. active assisted
- d. active resistive

...B...

451. Which of these tests will differentiate sciatica due to a contained disc?

- a. well leg raiser

452. A male with edema of the lower limb, and laceration around the medial malleolus with secondary infection:

- a. stasis dermatitis

453. You have been treating a patient with idiopathic back pain for a couple of weeks and they have no relief:

- a. send out for a CBC

454. EKG was normal

- a. angina

455. Relieved by rest

- a. angina

456. Profuse sweating:

- a. myocardial infarction

457. cock-up splint for CTS

- a. Jumpers knee

459. What muscle do you need to strengthen in chondromalacia patella?

- a. biceps femoris
- b. rectus femoris
- c. vastus medialis
- d. vastus lateralis

...C...

460. A 45 year old man presents with fever, red nodules on his hands and feet, and examination reveals mitral stenosis. What lab test should be run?

- a. VDRL
- b. E.L.I.S.A.
- c. RA
- d. ASO titre

...D...

461. What supplement should you give a 35 year old female who presents complaining of cramps and back pain and is taking 1000mg Ca++ a day?

- a. magnesium
- b. zinc
- c. Vitamin C
- d. phosphorus

...D...

462. What problems will arise with a lesion of the anterior root?

- a. flaccid paralysis
- b. spastic paralysis
- c. hyperreflexia
- d. loss of sensation

...A...

463. Which of the following is the best treatment for a 21 year old female patient presenting with non-malignant dermatological problems?

- a. zinc and Vitamin A
- b. calcium and Vitamin B3
- c. iron and Vitamin C
- d. potassium and Vitamin E

...A...

464. What drug intoxication may produce labyrinthitis?

- a. erythromycin
- b. tetracycline
- c. penicillin
- d. streptomycin

...D...

465. What is the proper ratio of HDL to total serum cholesterol?

- a. 1:4
- b. 1:5
- c. 1:6
- d. 1:7

...A...

466. Which of the following conditions is characterized by normal CSF findings?

- a. aseptic meningitis
- b. viral encephalitis
- c. toxoplasmosis
- d. epilepsy

...D...

467. Which psychological condition is associated with anorexia, nausea, insomnia, menstrual irregularities and fatigue?

- a. depression
- b. compulsion
- c. hypochondria
- d. hysteria

...A...

468. The parapsychological space of joint motion occurs between _____ motion and _____.

- a. end of active; end of passive range of motion
- b. beginning of active; end of passive range of motion
- c. beginning of passive; end of active range of motion
- d. end of passive; limit of anatomical integrity

...D...

469. What is the most common complication as a result of too rapid an increase of activity during rehabilitation of a knee injury?

- a. popliteal cyst
- b. patellar tendinitis
- c. Osgood-Schlatter's
- d. quadriceps rupture

...A...

470. Which end feel on passive range of motion palpation would show a very poor prognosis for increasing range of motion with physical therapy?

- a. capsular
- b. bone on bone
- c. spongy fixed
- d. spasm

...B...

471. A 10,000 Hz current and a 10,100 Hz current are positioned so that they intersect within the tissues. This represents;

- a. sine wave
- b. diathermy
- c. interferential
- d. continuous ultrasound

...C...

472. White curdy patches involving the oral mucosa are characteristic of?

- a. aphthous stomatitis
- b. torus palatinus
- c. moniliasis
- d. angioneurotic edema

...C...

473. Which spinal nerve innervates the primary retractors of the scapula?

- a. C1
- b. C5
- c. T1
- d. T7

...B...

474. Which neurological test may be used to test the integrity of the cerebellum?

- a. grasp reflex
- b. Barany's pointing
- c. pointing finger to nose
- d. Babinski's reflex

...C...

475. Which of these motions are coupled in ALL spinal segments?

- a. flexion/extension
- b. flexion/rotation
- c. rotation/extension
- d. lateral flexion/rotation

...D...

476. Facet hypertrophy or marginal degenerative changes of the articular processes may cause which of the following lumbar syndromes?

- a. canal stenosis
- b. spondylolisthesis
- c. cauda equina syndrome
- d. lateral recess stenosis

...D...

477. Adhesive capsulitis is best described as pain that is;
- made worse with rest, increased range of motion
 - made worse with rest, decreased range of motion
 - ceases with rest, worse with motion, and decreased range of motion
 - same during motion or rest with limited motion
- ...C...
478. Which test would be most diagnostic for acute appendicitis?
- WBC
 - RBC
 - urinalysis
 - serum amylase
- ...A...
479. A 43 year old female presents with unexplained inflammatory arthritis and acute pain in the left shoulder. What is the preferred management of this patient?
- treat the shoulder symptomatically, re-schedule for a CBC, ESR, arthritis profile, and blood chemistry
 - refer to a neurologist
 - start on a vitamin diet to relieve the inflammation and re-evaluate in six weeks
 - treat shoulder to prevent a loss of range of motion and strengthen the shoulder muscles
- ...A...
480. A 12 year old patient presents with acute pain and tenderness in the Right lower quadrant. There is no rebound tenderness. Lab reveals; WBC count of 18,000, 70% PMNs, 20% lymphocytes, and 10% bands. Which of the following is the patient suffering from?
- acute cystitis
 - acute hepatitis
 - appendicitis
 - acute gastritis
- ...C...
481. A female who presents with a retrouterine fibroid that displaces the uterus is likely to refer pain to;
- dorsolumbar
 - mid-lumbar
 - lumbosacral
 - sacral
- ...C...
482. Which of the following best describes the cervical interbody joints?
- saddle
 - pyramidal
 - ball and socket
 - ellipsoidal
- ...A...
483. Which instrument do you use for testing grip strength?
- caliper
 - anatometer
 - dynamometer
 - nervoscope
- ...C...
484. The onset of myasthenia gravis is characterized by the involvement of the _____ musculature.
- neck
 - low back
 - eye
 - arm
- ...C...
485. Total serum protein is elevated in which of the following conditions?
- peptic ulcer
 - multiple myeloma
 - Hodgkin's disease
 - myelogenous leukemia
- ...B...
486. Which of the following is the correct sequence of the muscular contraction in order to perform a throwing action from acceleration to follow through?
- biceps, triceps, pectoralis majors, serratus magnus
 - triceps, biceps, serratus anterior, pectoralis major
 - pectoralis major, serratus anterior, biceps, triceps
 - serratus magnus, pectoralis major, triceps, biceps
- ...C...
487. Which of the following lab studies will differentiate Shigella from Salmonella gastroenteritis?
- stool study
 - CBC
 - complete chemistry
 - urinalysis
- ...A...
488. Which of the following classes of clinical subluxations is most accurately described as a "spinal or pelvic segment that is in a neutral position of mobility that fails to fully mobilize"?
- pathological
 - traumatic
 - reflex
 - fixation
- ...D...
489. Which of the following is the appropriate treatment for someone in insulin shock?
- raise the legs
 - adjust
 - give water
 - give orange juice
- ...D...
490. Which of the following has a clearly different clinical objective?
- hot packs
 - cold packs
 - diathermy
 - ultraviolet light
- ...D...
491. Which of the following would be indicated when a soft tissue paravertebral retropharyngeal shadow on the lateral cervical film is wider than the C5 vertebra following trauma to the cervical spine?
- spondylolisthesis
 - fracture
 - hematoma
 - instability
 - muscle tear
- ...C...
492. A female patient presents with lack of energy, weight gain, constipation, cold intolerance, hoarseness, fatigue, sluggish Achilles tendon reflex, weakness and dry skin are associated with?
- Grave's disease
 - hypothyroidism
 - Addison's disease
 - Cushing's syndrome
- ...B...
493. A 23 year old female presents with abdominal pain and alternating diarrhea and constipation. Her stools are small with gaseous distension and flatulence. What is the most likely diagnosis?
- ulcerative colitis
 - colon cancer
 - irritable bowel syndrome
 - regional enteritis
- ...C...
494. A 28 year old female presents with painful joints, low grade fever, fatigue, anorexia and a red discoloration over her cheek bones. Her joints are not red or hot. What would be the most appropriate lab test to do?
- uric acid levels
 - rheumatoid factor
 - ASO titre
 - ANA
- ...D...
495. If after manual processing of a properly exposed x-ray film, you note a film has a brownish hue. What would you suspect?
- contaminated fixer
 - exhausted developer
 - dirty wash water
 - exhausted fixer
- ...D...
496. Which cervical action causes the most (bilateral) traction on the cervical spinal nerve roots?
- flexion
 - extension
 - rotation
 - lateral flexion
- ...B...
497. Which of the following modalities is NOT contraindicated for a patient with myositis ossificans?
- ultrasound and ice
 - diathermy and TENS
 - deep tissue massage and pulsed ultrasound
 - interferential and High volt galvanic
- ...A...
498. Radiographic examination of the chest reveals tracheal deviation and widening of the mediastinum would be suggestive of possible?
- lobar pneumonia
 - bronchogenic carcinoma
 - congestive heart failure
 - pneumothorax
- ...B...
499. Damage to the cervical ligaments following a whiplash injury is best assessed by;
- lateral cervical film
 - flexion-extension films
 - palpation
 - thermographic study
- ...B...
500. A 60 year old male presents with clubbing of the nails, cyanosis of the lips and hypertrophic SCMs bilaterally. His history reveals orthopnea, nocturnal paroxysmal dyspnea, edema, and chest pain. What system is most likely involved?
- vascular
 - respiratory
 - cardiac
 - gastrointestinal
- ...B...
501. Acute epigastric pain which is relieved when the patient sits up and leans forward or with flexion of the knees to the chest suggests;
- biliary obstruction
 - appendicitis
 - pancreatitis
 - peritonitis
- ...C...
502. Which of the following structures assists tendons in restricting motion and providing joint stability?
- ligaments
 - cartilage
 - joint capsule
 - synovial membrane
- ...A...
503. Which of the following is associated with the pyramidal tracts?
- past-pointing
 - Wartenberg's
 - Hoffmann's
 - ataxia
- ...C...
504. A 30 year old male has six month history of periodic episodes of unilateral headaches. Pain is exacerbated by consuming alcohol. The headaches are accompanied by increased lacrimation and rhinorrhea. Which of the following is the most likely headaches ?
- cluster
 - tension
 - common
 - hypertensive
- ...A...
505. Which of the following may be a normal finding in urine?
- glucose
 - proteins
 - ketone bodies
 - hyaline casts
- ...D...
506. A 23 year old male presents with back pain of recent onset. He states that 3 days previously, he was tobogganing and hit a bump which caused an immediate sharp pain in the thoracolumbar region. History reveals that he had been treated for Crohn's disease with steroid medication for the past 4 years. What is the most likely diagnosis?
- thoraco-lumbar strain/sprain
 - vertebral fracture
 - bowel obstruction
 - rib subluxation
- ...B...
507. A patient presenting with rhonchi on inspiration and expiration suggest involvement of;
- trachea and the major airways
 - alveolar
 - terminal bronchiole
 - pharynx
- ...A...
508. A patient being treated medically for SLE presents with left hip pain. X-ray shows normal joint spacing rarefaction of bone and sub-chondral sclerosis. What is the likely diagnosis?
- neurogenic arthropathy
 - avascular necrosis
 - D.J.D.
 - infection
- ...B...

509. What complaint would a patient with lumbar central canal stenosis have?
a. "my legs go to sleep when I sit"
b. "my legs are weak and rubbery"
c. "my legs burn when I lie in bed"
d. "I get shooting pain down my legs when I sit and lean forward."
...C...
510. Which of the following is/are most appropriate in the treatment of acute bronchitis?
a. ice packs
b. SW diathermy
c. massage
d. exercise
...C...
511. The triceps is similar to what muscle in the lower extremity?
a. biceps femoris
b. quadriceps
...B...
512. A 37 year old female presents with abdominal distension and no ascites. This information would lead you to suspect;
a. irritable bowel syndrome
b. cirrhosis
c. congestive heart failure
...A...
513. Fruity breath in diabetes mellitus is due to the oxidation of?
a. fatty acids
b. proteins
c. acetone
d. glycogen
...A...
514. A 27 year old female comes in for routine check-up. She complains of moderate fatigue. History shows no weight loss, infection, GI problems, melena, or hemorrhage. She has had three successful pregnancies in the last 5 years. CBC shows; RBC=3.72, MCV= 71, MCHC= 26, reticulocytes =0.4%, serum iron= 27, TIBC=520. The best diagnosis would be;
a. iron deficiency anemia
b. heterozygous thalassemia
c. myelophthisic anemia
d. anemia of chronic disease
...A...
515. What type of diet do nutritional authorities recommend to reduce the risk of intestinal cancer?
a.
b. high protein, low sugar
c. high carbohydrate, high mineral
d. low fat, high fiber
...D...
516. Chest pain which is increased by exercise and decreased with rest?
a. peritonitis
b. diaphragmatic irritation
c. coronary ischemia
d. pleurisy
...C...
517. What is the best Vitamin supplement for carpal tunnel syndrome?
a. B1
b. B2
c. B6
d. B12
...C...
518. Which of the following nerves are most susceptible to diabetic neuropathy?
a. radial
b. median
c. femoral
d. sciatic
...C...
519. A calcification of the medial collateral ligament at its insertion to the tibia following partial avulsion trauma.
a. osteochondritis dessicans
b. Osgood-Schlatter
c. Pellegrini-Stieda
...C...
520. A 34 year old female presents with raised asymmetrical lesion with blue and black dots on her leg. What is your diagnosis?
a. basal cell carcinoma
b. squamous cell carcinoma
c. melanoma
d. seborrheic keratosis
...C...
521. A patient presenting with knee pain is placed in the prone position, with his knee flexed to 90°. An upward force is applied to the leg with inversion and eversion of the foot. The test is negative for pain. What condition can be ruled out at this point?
a. joint capsule
b. medial meniscus
c. cruciate ligaments
...C...
522. The most desired objective for Chiropractic care for a youth with non-operative idiopathic scoliosis would be?
a. reduce the curve
b. correction of spinous rotation
c. halt the progression of the curve
d. avoid rib humping
...C...
523. A 30 year old female who experiences right hand pain of three weeks duration. The pain is intermittent, sharp and throbbing. She states that her hands turn white, then blue then red on exposure to cold. What is the probable diagnosis?
a. Raynaud's
b. wrist compression
c. carpal tunnel
d. subclavian artery stenosis
...A...
524. With a tightening of the right iliolumbar ligament as in the case of a P1 ilium, what will happen to L5?
a. the spinous of L5 will rotate to the right
b. the spinous of L5 will rotate to the left
c. the left transverse process will move posterior
d. L5 will rotate counterclockwise
...B...
525. A 20 year old female experiences severe sharp shooting pain down her neck when she flexes her head to her chest in the supine position. This suggests possible?
a. meningitis
b. disc prolapse
c. multiple sclerosis
d. severed cord
...C...
526. In a patient presents with median nerve entrapment by the pronator teres. Which of the following actions would cause pain or further weakness?
a. using a screwdriver
b. extension of the wrist
c. flexion of the wrist
d. cradling the arm above the head while sleeping
...A...
527. What type of motion is not desired when adjusting a spondylolisthesis?
a. flexion
b. extension
c. flexion and rotation
d. rotation
...B...
528. A patient in a whiplash accident experiences jaw pain. Which modality is contraindicated?
a. ice
b. traction
c. high volt
d. massage
...B...
529. At which spinal levels would you find the tip of the scapula?
a. T1-2
b. T4-5
c. T6-7
d. T8-9
...C...
530. The normal lumbo-sacral disc angle is approximately ;
a. 5°
b. 15°
c. 40°
d. 75°
...B...
531. Which exercises would be recommended for a patient with anterior pelvic tilt?
a. strengthen the rectus femoris, stretch the hamstrings and abdominals
b. strengthen the rectus femoris and abdominals, stretch the hamstrings
c. strengthen the abdominals and hamstrings, stretch the rectus femoris
...C...
532. A patient presents with bilateral pain down the legs, pain at L4-L5 joint, Valsalva is positive, and leaning to either side produces no relief. The likely condition would be;
a. L4 medial disc
b. L5 lateral disc
c. sciatica
d. central canal stenosis
...D...
533. A patient presenting with loss of sensation over the medial calf and foot suggests involvement of which level?
a. L3
b. L4
c. L5
d. S1
...B...
534. Examination reveals a subluxation. The vertebra has not moved out of its normal juxtaposition, however there is a decreased range of motion. This would be due to what type of subluxation?
a. fixation
b. fracture
c. pathological
d. reflex
...A...
535. What is the sensory component of the corneal reflex?
a. CN IV
b. CN V
c. CN VI
d. CN VII
...B...
536. What type of diet would be recommended on a patient with S.L.E.?
a. low purine, low salt
b. low purine, high protein
c. high purine, low protein
d. high purine, high fat
...A...
538. A lesion of which are would result in contralateral pain which is characterized as gnawing, or burning
a. thalamic
b. visceral
c. radiculopathy
...A...
539. What quality of is most important in muscle fatigability?
a. strength
b. size
c. power
d. endurance
...D...
540. Routine urinalysis on a young male athlete reveals trace proteins. What should be next in your management of this patient?
a. KUB
b. chemistry
c. re-examine early the next morning
d. refer to a hospital
...C...
541. What position will cause the most symptoms in a patient with central canal stenosis?
a. flexion
b. extension
c. lateral flexion
d. rotation
...B...
542. On motion palpation, a patient has a capsular end feel. How would you treat this patient?
a. mobilization
b. splinting
c. cold
d. heat
...A...
543. A patient has a fracture of the distal radius, one inch from the wrist with dorsal displacement of the distal segment. This fracture is called;
a. Barton's
b. Colles
c. Smith's
d. Bennett's
...B...

544. A patient has degenerative type changes with in the disc affecting the vertebrae above and below, with end plate sclerosis. This describes;
- spondylosis
 - spondylolysis
 - spondylolisthesis
 - ankylosing spondylitis
- ...A...

545. Based on the information in the following radiograph, to whom would you refer the patient?
- orthopedist
 - oncologist
 - neurologist
 - rheumatologist
- ...B...

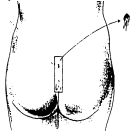
546. A Schilling shift to the left means?
- ↓ in leukocytes and an ↑ in immature white blood cells
 - ↑ of leukocytes and an ↑ in immature white blood cells
 - ↓ in reticulocytes and an ↑ in immature white blood cells
 - ↑ in reticulocytes and an ↑ in immature white blood cells
- ...B...

547. An x-ray for the acromioclavicular joint is taken;
- P-A recumbent
 - A-P recumbent
 - A-P standing with weights
 - P-A standing
- ...C...

548. The quantity of x-rays emitted from the x-ray tube is directly proportional to;
- mAS
 - kVp
 - FFD
 - focal spot size
- ...A...

549. A 16 year old female has a history of 102° fever. Examination reveals a murmur over the mid-clavicular line at the 5th intercostal space. What lab test would be most appropriate?
- CBC
 - RA latex
 - ESR
 - ANA
- ...A...

550. The underlying condition depicted in the diagram below is;



- anal fissure
 - anorectal fistula
 - sentinel tag
 - pilonidal cyst
- ...D...

551. Identify the normal angle indicated by #3 in the diagram below;



- 60°
 - 75°
 - 125°
 - 145°
- ...B...

552. Identifv area #1;



- disc
 - fovea
 - vein
 - macula
- ...B...

553. A lesion in which area in the diagram below would result in a loss of pain and temperature?



- 1
 - 2
 - 3
 - 4
- ...A...

554. The lesion depicted in the diagram below is;



- bursitis
 - tendinitis
 - radiculitis
 - myofascitis
- ...A...

555. This picture suggests which condition?
SMALLER TEETH. WIDE SPACING



- CENTRAL NOTCHING, TAPERING SIDES
- gingivitis
 - dental caries
 - syphilis
 - teratoma
- ...C...

556. On passive range of motion, a patient has jerky movements of the muscle with cogwheel rigidity. What is the most likely cause?
- syringomyelia
 - tabes dorsalis
 - amyotrophic lateral sclerosis
 - Parkinson's disease
- ...D...

557. Which of the following is the most likely consequence in the fracture depicted below;



- vertebral artery occlusion
 - compression on the spinal cord
 - stress on the nerve roots
 - Schmorl's nodes
- ...B...

558. The white-grayish ring depicted in the diagram below is a normal finding in which age group?



- 10
 - 20
 - 35
 - 60
- ...D...

559. What type of exercise is indicated in adhesive capsulitis?

- active
 - resisted active
 - passive
 - progressive resisted
- ...C...

560. A patient has difficulty in breathing and upon auscultation you note rales. What structure is likely to be involved?

- bronchi
 - bronchioles and terminal alveoli
 - parenchyma
- ...B...

561. What sounds would be auscultated on the lateral chest walls?

- vesicular
 - bronchovesicular
 - bronchial
- ...A...

562. A patient presents with pain in the lower cervicals and when she rotates her head she gets dizzy. What should you do?

- vertebral-basilar artery maneuver
 - adjust with no rotation
 - x-ray
 - refer immediately
- ...A...

563. As a chiropractor, you are likely to get carpal tunnel syndrome by which of the following mechanisms?
- putting the hand in extension with multiple thrusts over a long period of time

564. Using a modified diversified pisiform contact to correct a body right subluxation, the patient would be lying _____, and you would contact the _____;

- prone; right transverse
 - supine; right transverse
 - prone; left transverse
 - supine; right side of the spinous
- ...A...

565. A 62 year old female presents with a 1cm raised lesion on her right arm. The lesions are non-tender, with black and blue dots;
- basal cell carcinoma
 - squamous cell carcinoma
 - melanoma
- ...C...

566. A 54 year old male presents with shoulder pain that radiates to the medial aspect of the forearm with decrease range of motion. The condition has been present for two months, he has a myocardial infarct 8 months previously, and examination reveals evidence of mitral stenosis.

- carpal tunnel syndrome
 - shoulder hand syndrome
 - thoracic outlet syndrome
 - venous thrombosis
- ...B...

567. A patient presents with a problem with the diaphragm. What area of the spine would you adjust?

- C3-5
 - T1
 - T7-10
 - T11-12
- ...A...

568. A 26 year old electrician presents with pain and tests positive for a thoracic outlet syndrome. The pain is produced when the arm is brought above his head. The most likely cause is;

- scalenus anticus syndrome
 - pectoralis minor syndrome
 - costoclavicular syndrome
 - cervical rib
- ...B...

569. What is the normal radiological measurement at this area in an adult?



- 1-3mm
 - 3-5mm
 - 5-7mm
 - 7-9mm
- ...A...

570. What condition is indicated in the picture below?



- lipoma
 - ganglion
 - sarcoma
 - fracture
- ...B...

571. A patient with degenerative facet hypertrophy and spurring would be most susceptible to;

- subluxation
 - lateral canal stenosis
 - central canal stenosis
 - spondylolysis
- ...B...

572. In a hyperextension whiplash injury, which muscle is most likely to be involved?

- SCM
 - trapezius
- ...A...

573. What is the clinical disability associated with Charcot-Marie-Tooth's disease?

574. Identify the finding:



a. Horner's syndrome

575. Flexion and extension of the lumbar spine occurs in _____ plane and _____ axis.

- a. sagittal - vertical
- b. sagittal - horizontal
- c. coronal - sagittal
- d. horizontal - horizontal

b

576. In the anatomical position, the hook of the hamate is _____ in relation to the pisiform.

- a. proximal and lateral
- b. proximal and medial
- c. distal and lateral
- d. distal and medial

c

577. The mamillary process is located?

- a. dorsal aspect of the inferior articular process
- b. dorsal aspect of superior articular process
- c. lateral aspect of the vertebral body
- d. medial aspect of the transverse process

b

578. Nodding of the head occurs between:

- e. Occiput-C1
- f. C1-C2
- g. C3-C7
- h. cervical-thoracic area

a

579. When the right optic nerve is severed, what kind of vision loss will result?

- i. total blindness of the right eye
- j. bilateral temporal
- k. ipsilateral nasal, contralateral temporal
- l. ipsilateral temporal, contra-lateral nasal

a

580. A patient with an L4 nerve root lesion exhibits which of the following findings:

- m. sensory deficit of little toe
- n. absence of Achilles reflex
- o. sensory deficit lateral dermatome
- p. decreased tibialis anterior muscle strength

d

581. Foot neuropathy may be seen in which pre-existing condition?

- a. untreated gout
- b. untreated syphilis
- c. untreated diabetes

c

582. Foot drop may be due to weakness of which muscle?

- a. tibial anterior
- b. tibial posterior
- c. gastrocnemius
- d. quadriceps

a

583. Winging of the scapula is associated with which nerve?

- e. long thoracic nerve
- f. dorsal scapular
- g. suprascapular nerve
- h. axillary

a

584. Which nerve is the motor portion of the accommodation reflex?

- e. optic
- f. oculomotor
- g. trigeminal
- h. abducens

b

585. Innervation for hypothenar area is via the:

- b. ulnar nerve
- c. radial nerve
- d. median nerve
- e. axillary nerve

a

586. Shingles primarily affects which part of the nervous system?

- a. lateral corticospinal tract
- b. posterior root ganglia
- c. anterior nerve root
- d. lateral spinothalamic tract

b

587. An upper and lower motor neuron disease affecting the extremities with atrophy and weakness in the hands

- a. syringomyelia
- b. amyotrophic lateral sclerosis
- c. dermatomyositis
- d. poliomyelitis

b

588. Which condition affects the anterior horn cell of the cord?

- a. tabes dorsalis
- b. multiple sclerosis
- c. poliomyelitis
- d. myasthenia gravis

c

589. Scanning speech and abnormal separation of syllables is an example of:

- a. aphasia
- b. aphonia
- c. dyslexia
- d. cerebellar dysarthria

d

590. A lesion of which area would cause sensory loss indicated by the diagram below:



- a. commissural
- b. sensory
- c. thalamic

a

591. Which neurological area affects the body as in figure B?



- a. commissural
- b. sensory
- c. medulla - spinothalamic tract
- d. cortex - spinothalamic tract

c

592. An 80 year old female fell on icy concrete with an outstretched hand and hit her palm on trying to break her fall. What is the most likely bone to fracture?

- a. ulna
- b. hamate
- c. radius
- d. 2nd metacarpal

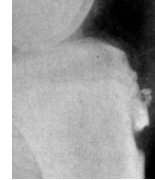
c

593. Which of the following tumors may be relieved by aspirin?

- a. osteoid osteoma
- b. unicameral bone cyst
- c. osteosarcoma
- d. multiple myeloma

a

594. The radiograph of a young female gymnast reveals;



- a. osteochondritis dessicans
- b. Osgood-Schlatter's
- c. avulsion fracture of tibial tuberosity

b

595. The patient states he fell on outstretched hand and has pain in area the anatomical snuffbox.



- a. hyperextension injury
- b. perilunate subluxation
- c. Colles' fracture
- d. scaphoid fracture

d

596. A 13-year-old female athlete presents with localized back pain that started 12 months ago. The pain subsided after 6 months of restricted activity and lumbar flexion exercises. Several months ago the pain came back after diving practice. What is least likely to differentiate the condition?

- a. Scheuermann's disease
- b. disc protrusion
- c. pars fracture
- d. sprain and strain

b

597. Based on the radiograph, what most likely happened?



- a. pars fracture
- b. osteomyelitis
- c. avulsion fracture
- d. compression fracture

a

598. What would be your initial case management?

- e. stretching paraspinal muscle
- f. brace to limit motion
- g. adjust lumbar spine
- h. refer

c

599. On a plain film radiograph, what is most difficult to distinguish between? (Plain film radiograph will best distinguish between?)

- i. air and water
- j. muscle and organ tissue
- k. fat and water
- l. bone-organ

d

600. Which of the following may present a laminated periosteal response on x-ray?

- a. bone island
- b. Ewing's sarcoma
- c. multiple myeloma
- d. osteosarcoma

b

601. Which of the following imaging methods employs non-ionizing radiation, gives good detail in sagittal and coronal views, and where bone is black?

- a. MRI
- b. bone scan
- c. CT
- d. plain film radiograph

a

602. Which of the following is the most common location for H.A.D.D.?

- a. wrist
- b. elbow
- c. shoulder
- d. knee

c

603. A single ivory white vertebra in 20-year-old male would most likely be:

- a. Paget's
- b. Hodgkin's
- c. osteoblastic metastatic
- d. 1^o malignancy

b

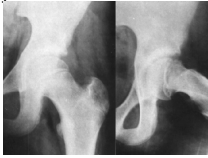
604. An older male presents with punched out lesions on radiographs. Which study should be performed next?

- a. bone scan
- b. CT scan
- c. immunoelectrophoresis
- d. alkaline phosphatase

c

605. An 80-year-old female demonstrates osteopenia. What radiographic measures need to be taken to get proper contrast and density?
- increase kVp 15%
 - decrease kVp 15%
 - increase mAs 25%
 - decrease mAs 25%
- ***d***

606. An obese 9 year old male presents with complaints of hip pain, no history of trauma. He has a (+) Trendelenberg with a radiolucent line below the epiphysis.



- Legg-Calvé-Perthes' disease
 - slipped capital femoral epiphysis
 - congenital hip dysplasia
 - femoral necrosis
- ***b***

607. A mother brings in a young female with severe coxa varus (pigeon-toed). What would be the most likely cause?
- Legg-Calvé-Perthes' disease
 - eosinophilic granuloma of greater trochanter
 - posterior hip joint dysplasia
 - femoral anteversion
- ***d***

608. A patient presents with ankle edema, ulceration of the medial malleolus, with cyanosis and stasis dermatitis. Which test would you order?
- bone scan
 - CT
 - Doppler ultrasound
 - MRI
- ***c***

609. What is the best view for lateral lumbar stenosis?
- lateral
 - oblique
 - A-P
- ***a***

610. Which of the following methods is used to measure canal stenosis by determining body:canal ratio?
- Meyering's
 - Hadley's
 - Van Akkerveeken's
 - Eisenstein's
- ***d***

611. What is the worst complication of a thigh contusion?
- myofascitis
 - myositis ossificans
 - quadiceps strain
 - tendon rupture
- ***b***

612. What would you use to minimize the x-ray beam coming out of the tube to the patient?
- collimation
 - filter
 - intensifying screens
 - grid
- ***a***

613. You have an x-ray in which the upper thoracics came out fine but the lower cervicals are overexposed. What would this indicate?
- no grid
 - no collimation
 - intensifying screens
 - no filter
- ***d***

614. Which of the following is suggested is suggested by diagram?



- rheumatoid arthritis
 - osteoarthritis
 - psoriatic arthritis
 - gouty arthritis
- ***b***

615. Calcification of the anterior annular fibers in degenerative disc disease is associated with:
- vacuum phenomenon
 - intercalary bone
 - geodes
 - intra-capsular bone
- ***b***

616. Which will NOT cause an increased risk of upper cervical instability?
- Down's
 - Reiter's disease
 - psoriatic arthritis
 - DISH
- ***d***

617. Identify:



- myositis ossificans
 - osteochondritis dessicans
 - Osgood-Slaughter's
 - osteochondroma
- ***b***

618. Which does NOT predispose to osteoporosis?
- acromegaly
 - hypothyroidism
 - heparin treatment
 - steroid treatment
- ***b***

619. A 19-year old female presents with a 2-week history of episodes of lightheadedness and tingling sensations in both hands and feet and around her mouth. The most likely diagnosis is:
- Meniere's syndrome
 - otitis media
 - hyperventilation
- ***c***

620. A patient presents with emphysema. In addition to hypertrophied accessory muscles, breathing will also most likely have:
- ↓ respiratory excursion
 - koilonychia
 - tactile fremitus
- ***a***

621. A systolic difference of 10mm Hg bilaterally would indicate an occlusion of what artery?
- carotid
 - subclavian
 - radial
 - ulnar
- ***b***

622. What is the primary finding of pheochromocytoma?
- hypertension
 - muscle reflexes
 - bradycardia
 - sciatica
- ***a***

623. A fixed, hard, palpable cervical lymph node indicates:
- recent infection
 - normal
 - inflammation
 - malignancy
- ***d***

624. A 37 year old female has a non-productive dry cough brought on by hiking outdoors. It wakes her up at night. After one year duration it is getting worse. Her mother and brother have a history of hay fever. Her lab values are normal. What is the diagnosis?
- chronic bronchitis
 - pneumonia
 - asthma
 - emphysema
- ***a***

625. An 8 year old boy presents with a clear colored unilateral discharge from one nostril. Which of the following is the least likely diagnosis?
- tumor
 - epistaxis
 - allergies rhinitis
 - foreign object
- ***b***

626. A 36-year-old male complains of esophageal reflux with pain in the thoracics and midline that is temporarily relieved after meal suggests:
- hiatal hernia
 - peptic ulcer
 - acute gastroenteritis
 - acute cholecystitis
- ***b***

627. What murmurs would be found upon auscultation during S2?
- mitral regurgitation and tricuspid regurgitation
 - tricuspid regurgitation and pulmonic stenosis
 - Aortic stenosis and mitral regurgitation
 - aortic regurgitation and tricuspid stenosis
- ***d***

628. A headache which would most suggest a tumor:
- sudden onset, frontal area
 - gradual onset, chronic, beginning at occipital area and moving temporally
 - sudden onset, intense pain in periorbital area
- ***b***

629. An older alcoholic male who has a history as a smoker, demonstrates dilated veins on the chest and hematemesis:
- hepatomegaly
 - esophageal varices
- ***b***

630. Which liver condition has the least favorable outcome?
- acute viral hepatitis
 - chronic active hepatitis
 - fatty liver
 - hepatomegaly
- ***b***

631. A patient presents of having to urinate 10-15 times a day in small amounts (in ml.), is called:
- urgency
 - polydipsia
 - dysuria
 - frequency
- ***d***

632. Patient presents with nocturnal coughing, difficult breathing after mild exertion and while lying supine. Pulse and respiration is increased; temperature is 98.6°, and blood pressure of 120/100:
- heart failure
 - pneumonia
 - apnea
 - (asthma?)
- ***a***

633. A butterfly mask is indicative of what condition?
- Grave's disease
 - Reiter's syndrome
 - psoriatic arthritis
 - systemic lupus erythematosus
- ***d***

634. Patient presents w/ clay colored stools and coca cola colored urine.
- hepatitis

635. Which of the following may cause to pre-hepatic jaundice?
- hemolytic
 - obstructive
- ***a***

636. The pain associated with myocardial infarction is described as which of the following:
- sharp and knife-like
 - ripping and tearing
 - pressure and squeezing
 - dull
- ***c***

637. What is the prognosis for a patient with liver disease who has a steady decrease in serum albumin, an increase in blood ammonia and a decrease in blood glucose?
- terminal liver disease
 - period of remission
 - gradual return to health
 - diet therapy
- ***a***

638. Cullen's sign indicates
- pregnancy
 - ascites
 - hemoperitoneum
- ***c***

639. A patient presents with bluing around umbilicus. What sign?
 w. Murphy's
 x. Kerr's
 y. Hadley's
 z. Cullen's
 d

640. Papilledema is associated with what condition?
 aa. increased intra-ocular pressure
 bb. increased intra-cranial pressure
 cc. decreased intra-ocular pressure
 dd. decreased intra-cranial pressure
 b

641. Ascites, esophageal varices, portal hypertension are associated with
 ee. cirrhosis

642. The most common symptom or complaint seen in C.O.P.D. is:
 a. chest pain

643. Exophthalmos, warm to touch, weight loss, ↑ appetite may be associated with;
 b. Cushing's
 c. hypothyroidism
 d. Grave's
 e. Addison's
 c

644. Associated with hyperthyroidism?
 f. exophthalmos
 g. weight loss
 both

645. Which letter corresponds with myocardial ischemia?



h. 1
 i. 2
 j. 3
 k. 4
 d

646. A 10-year-old female presents with fever, pink rash with clear center on trunk. Last week she complained of elbow and knee pain. Exam reveals a blowing, holosystolic murmur over the mitral valve, ASO was 450 Todd units. History revealed severe pharyngitis 4 weeks ago:
 a. herpes zoster
 b. rheumatic fever
 c. scarlet fever
 d. rubeola
 b

647. What would most likely cause bradycardia?
 e. hyperthyroidism
 f. acute fever
 g. intracranial pressure
 h. iron deficiency anemia
 c

648. A 35 female complains of frequent urination, suprapubic and sacral pain would most likely also have:
 i. burning urination
 j. menstrual cramps
 a

649. Arteriosclerosis affects what kind of blood pressure?
 k. diastolic
 l. systolic
 m. leg and arm blood pressure
 n. entire body
 b

650. Which disease affects females more than males?
 o. ankylosing spondylitis
 p. systemic lupus erythematosus
 q. psoriasis
 r. multiple sclerosis
 b

651. Bouts of sharp pain, worse with chewing, brushing teeth, trigger patient's pain at nasal, lips and gums would most likely be;
 s. trigeminal neuralgia
 t. glossopharyngeal neuralgia
 u. TMJ syndrome
 a

652. What would be the best means to determine the cause in a patient presents with headaches?
 v. physical exam
 w. present illness and review of systems
 x. orthopedic tests
 y. x-ray
 b

653. What is a bad question to ask patient?
 z. Where is the pain?
 aa. How is the pain?
 b

654. Identify the indicated in the diagram;



bb. Heberden's nodes
 cc. avulsion of extensor tendon
 dd. Dupuytren's contracture
 ee. RA
 b

655. Which of the following may present pitted nails, with scaling of elbow and knee:
 ff. psoriasis
 gg. SLE
 hh. gout
 a

656. A female complains of pain that started in the epigastrium moving to the right lower quadrant. The patient has rebound tenderness, with no relief after using the bathroom:
 ii. Crohn's
 jj. acute appendicitis
 kk. gastric ulcer
 b

657. atopic dermatitis – Eczema (flexor surfaces)

658. Murphy's sign + indicates acute cholecystitis

659. Which would give the bleakest prognosis?
 ll. a headache with a runny nose
 mm. a headache with persistent prodromal signs and symptoms

nn. a headache during normal cervical range of motion, that doesn't get worse
 oo. a headache with periodic sensory and motor symptoms
 d

660. Which of the following will not cause an increase in temperature?
 pp. ovulation
 qq. meditation
 rr. exercise
 ss. digestion
 b

661. Weird symptoms (bilateral leg pain) following an adjustment suggest?
 tt. Central canal stenosis
 uu. disk herniation
 vv. facet syndrome
 ww. fragmented disk
 d

662. Pain radiating into groin and low back and not past the knee would likely suggest:
 xx. gluteus medius syndrome
 yy. piriformis syndrome
 zz. facet syndrome
 aaa. disc herniation
 c

663. Which of the following conditions would a patient with low back pain increases while in the recumbent position?
 bbb. ↓ viscerosomatic
 ccc. ↓ strain
 ddd. ↓ disc herniation
 eee. ↓ spinal cord tumor
 d

664. What test would be used to confirm your diagnosis with coldness and pallor in one hand?
 fff. Allen's
 ggg. Phalen's
 hhh. Tinel's
 iii. Yergason's
 a

665. A 25-year old male runner experiences localized leg pain, 2-4 cm. above the femoral condyle. The condition is not aggravated by running or walking long distances, and all orthopedic tests were negative including: Lachman's, Apley's, anterior and posterior Drawer sign, and McMurray's. Valgus stress was negative, however varus stress slightly aggravated the complaint, along with skiing and walking down stairs. Most likely diagnosis: (DIAGRAM?)
 jjj. tensor fascia lata syndrome (iliotibial band friction syndrome)
 kkk. lateral meniscus tear
 ll. anterior cruciate ligament sprain
 mmm. lateral collateral sprain
 a

666. Which other orthopedic tests would be positive?
 nnn. Thomas'
 ooo. Ober's
 ppp. Simmond's
 b

667. Which physical attribute would not be of primary consideration in this diagnosis?
 a. supination / inversion
 b. genu valgus
 c. leg length discrepancy
 a

668. What treatment would be recommended?
 d. ice and ultrasound, massage
 e. apply analgesics/heat
 f. MCL/patella tracking
 a

669. What is the best test for medial meniscus?
 g. Lachman's
 h. Apley's
 i. Drawer
 j. McMurray's
 d

670. Lumbar canal stenosis is associated with
 k. bilateral leg pain
 l. low back pain
 a

671. What would you do with a sero-positive patient with a 6mm ADI space?
 m. adjust high force ↑ velocity
 n. low force, low velocity
 o. refer to rheumatologist
 p. MRI
 c

672. What would be done first on a patient with sudden crushing, pressure-like retro-sternal pain?
 q. ESR
 r. CK
 s. SGOT
 t. alkaline phosphatase
 b

673. What is the most specific for prostate cancer?
 u. alkaline phosphatase
 v. PSA
 w. acid phosphatase
 x. CBC
 y. GGT
 b

674. What condition would most likely be present in a patient with Bence-Jones proteinuria, and increased Ca⁺ and protein?
 z. gout
 aa. pancreatitis
 bb. leiomyoma
 cc. multiple myeloma
 d

675. Indirect bilirubin is seen with disease process.
 l. hemolytic
 m. obstructive
 n. tumor of gall bladder
 a

676. Most common cell to increase seen in multiple myeloma;
 o. monocytes
 p. lymphocytes
 q. basophils
 r. leukocytes
 s. plasmocytes
 e

677. Which is a contra-indication for chiropractic manipulation in a patient with a known disc herniation?
 t. frequency of urination
 u. lack of ability to urinate
 v. neurogenic paresthesia
 w. weakness of muscle strength
 x. hyperesthesia
 b

678. A 12-year old boy has a fever for 3 days. Pain in the L4 region with swelling. Radiographs are taken and reveal no abnormalities. What to do?
 y. adjust several times the next week and re-x-ray
 z. refer for a bone scan
 aa. refer for an MRI
 bb. adjust and retake x-rays in 2 weeks
 b

679. A patient presents with plantar fasciitis. Which of the following would you NOT do for this condition?
cc. toe raise
dd. underwater ultrasound
ee. orthotics /plantar support
ff. gastrocnemius stretch
a
680. A 40-year old female presents with pain and tingling in left hand. Which position would you place her wrist in a supportive brace?
gg. flexion
hh. extension
ii. radial deviation
jj. ulnar deviation
b
681. What would you do for a patient with anterior head carriage and hyper-kyphosis?
kk. stretch pectoralis between door
ll. head raise against gravity with weights
mm. stretch latissimus
nn. head flexion exercise
oo. extension exercise of lumbar
pp. strengthen abdominals
qq. strong paraspinal
a
682. Mother worried about 6-year old boy, trouble climbing stairs and keeping a steady balanced posture, no pain. What would you do?
rr. take normal lumbar radiological studies
?
683. A patient comes into your office following an motor vehicle accident. The patient demonstrates nuchal rigidity. Films are not available and you can't take films in your office. What would you do?
ss. treat as upper cervical fracture, stabilize and refer to ER for films
tt. adjust
uu. nothing
a
684. Inversion traction is contra indicated for which conditions
vv. disc herniation
ww. hypertension
xx. soft tissue impingement
yy. spondylosis
b
685. What would be your treatment for swollen tendon: transverse traction massage
aaa. effleurage
b
686. Which of the following would be the best initial indicator for iron deficiency?
bbb. Serum ferritin
687. Iron deficiency anemia
ccc. stocking glove
688. What vitamin or supplement for DJD?
ddd. glycosamine sulfate
689. Sensory changes that accompany advanced B-12 deficiency?
eee. radicular pain
fff. glove and stocking
ggg. saddle paresthesia
b
690. What vitamin or mineral supplement assists the assimilation of iron in the body?
hhh. zinc
iii. magnesium
jjj. B12
kkk. Vitamin C
d
691. Linoleic acid is a type of:
lll. essential amino acid
mmm. essential fatty acid
b
692. What is the important question to ask a patient?
nnn. Where does the pain start?
ooo. Does the pain travel to the little toe?
ppp. Does the pain radiate?
qqq. How far can you walk before you are forced to stop?
b
- Candidiasis = oral thrush
- Eating relieves the symptoms=Duodenal ulcer
- Which position is antalgia for left SCM tightness; left lateral flexion and right rotation
- Characteristic of paralysis agitans; stooped posture
- A child pain L4 swollen and a 3 day fever. What follow up study; bone scan
- What do you need to justify flexion extension views; do a neutral lateral first
- Patient flexes to the left, which way do the bodies rotate in the lumbar spine; to convexity
- Which way do the bodies rotate in the cervical spine on lateral flexion; opposite lumbar
- Charcot's joints; tabes dorsalis
- Which of the following would most likely affect the vertebral artery flow; ponticulus posticus
- What test do you do to evaluate a potential stroke patient; DeKleyhans
- A patient had lack of saliva. After the adjustment the patient's saliva returns; parasympathetic flow restored

693. Which of the following would most likely cause an increase in serum albumin?
a. poor nutrition
b. pregnancy
c. hyperthyroidism
d. dehydration
d
694. The presence of squamous epithelial cells in a urine sample indicates?
a. glomerulonephritis
b. contamination of the sample
c. hematuria
d. urinary tract infection
b
695. Which of the following elevated values most suggests SLE:
a. ESR
b. CPK
c. ANA
d. BUN
c
696. Which of the following modalities will cause both vasodilation and vasoconstriction?
a. ice packs
b. hot moist packs
c. interferential
d. microcurrent
a
697. Which mode of physiotherapy is best for the treatment of large joints?
a. interferential current
b. pulse ultrasound
c. infrared
d. high volt current
a
698. What is the primary purpose of Proprioceptive Neuromuscular Facilitation technique?
a. reduce edema
b. stabilize a hypermobile joint
c. increase joint range of motion
d. strengthen a weak muscle group
c (D also)
699. Which therapeutic modality gives the greatest depth of penetration:
a. warm whirlpool
b. hydrocollator
c. ice
d. paraffin bath
c
700. The initial treatment for a contusion could be:
a. ice
b. massage
c. ultrasound
a
701. Increased skin pigmentation after infrared therapy is due to:
a. increase in melanocytes
b. histamine release
c. skin thickening
d. increase blood to capillaries
d
702. A 58 year old patient presents with deep substernal pain which radiates to the back. An affirmative answer to which question indicates cardiac dysfunction?
a. Does the pain only last a few seconds?
b. Does a deep breath precipitate the pain?
c. Does walking or eating rapidly make pain worse?
d. Is the pain shooting or stabbing?
c
703. The mode of onset of a present illness includes which of the following parameters?
a. date of injury
b. vectors of injury
c. quality of pain
d. chief complaint
d
704. When a doctor asks a patient about vision disturbances, weight changes, urinary problems and sleeping problems, he is addressing;
a. chief complaint
b. present illness
c. review of systems
c
705. What is the initial care plan for someone who is knocked unconscious?
a. neurological exam
b. orthopedic exam, MRI
c. radiograph, CT, UA
d. cardiac stress test
a
706. Which is the least favorable prognosis for a patient involved in an acceleration/ deceleration car accident?
a. loss of consciousness
b. patient braced for impending collision
c. patient was facing forward looking straight ahead
d. headrest was positioned in highest position
e. psychosocial history
a
707. A 26 year old woman presents with spine pain and a healed 4th rib fracture. What is the indicated case management?
a. refer to orthopedic surgeon
b. conservative chiropractic management
c. refer to physical therapist
d. use physiotherapy modalities only
b
708. A 44 year old female with neck pain, tingling and paresthesia in right triceps which has been getting worse for 2 year. She noted symptoms are aggravated when reaching up to get things out of kitchen cabinets and putting on her blouse. Physical exam reveals bilateral tension of trapezius and sub-occipital muscles. Cervical ROM was normal and does not produce pain. What procedure will evaluate the signs and symptoms?
a. CBC
b. urinalysis
c. x-ray
d. spirometer
c
709. A 16 year old male presents with low back pain after a high school football game. X-ray reveals a Grade 1 spondylolisthesis of L5. Past history reveals he has had it since childhood. Which of the following is most likely short term prognosis?
a. complete resolution of defect will occur
b. surgical fusion required
c. permanent neurological symptoms develop
d. low back symptoms resolve soon
d
710. What degree of scoliosis is at the threshold where it is greater than surgical intervention would be indicated and less than conservative care would be indicated?
a. 15°
b. 25°
c. 45°
d. 65°
b
711. A 55 year old male presents with acute onset thoraco-lumbar pain. He states that the pain is deep and tender, and he has not slept for two days due to the inability to find a comfortable position. He cannot recall any trauma, but states that the pain began after he helped his wife plant tulip bulbs. What would be your initial case management?
a. perform spinal manipulation
b. perform deep myofascial soft tissue massage
c. check for occult blood in the stool
d. rule out abdominal aneurysm
d

712. A female patient with chronic sacroiliac pain and stiffness in the morning. What is the best management?
- pillows under the waist and between the knees when side-lying
 - avoid sitting and stair climbing
 - straight leg-raising exercises to strengthen the abdominal muscles
 - wear lumbosacral belt while sleeping
- ***A***
713. In a patient with lumbar facet syndrome, which of the following positions would you not recommend for sleeping?
- on their side with one knee flexed
 - on their side with both knees flexed
 - prone with pillow under chest
 - supine with pillow under knees (legs)
- ***C***
714. A 26 year old presents with thoracic pain which increased with breathing. X-ray shows 35° structural scoliosis. Neurological tests are negative. Leg length are equal. What is the best management?
- conservative chiropractic
 - refer for surgical consultation
 - heel lifts in shoes
 - monitor every 3 months
- ***A***
715. You have been treating a 32 year old female for 3 months for a L5- S1 disc syndrome with ultrasound, E.M.S., and flexion-distraction. You have relieved the pain but she consistently has no Achilles reflex and a 2+ when she is prone. There is no atrophy, she is a 5 on the muscle grading chart. She recently flexed forward when shaving her legs and the pain is just as bad as when started care. What is the subsequent follow up study?
- nerve conduction velocity test
 - CT scan
 - MRI
 - immediate referral to neurosurgeon
- ***D***
716. Which would definitely require medical concomitant care. A patient having a....
- viscero- somatic
 - myofascial
- ***A***
717. A 25 year old male presents with an intrascrotal nodule which is inseparable from the testicle. It does not transilluminate. There are no palpable femoral or inguinal lymph nodes. What is the appropriate management?
- monitor for 30 days
 - refer to a urologist
 - continue chiropractic adjustments unless urinary symptoms appear
 - refer for infertility work up
- ***B***
718. A 40 year female has received chiropractic care for low back pain in the S-I region (a previous condition) for the past 6 weeks. She has just had her 5th child. At first the chiropractic care relieved the pain for a few days, but now relief is only for a couple of hours. What is the most likely next step;
- refer to an orthopedic surgeon
 - continue to adjust and use ice
 - continue to adjust and use ultrasound
- ***C***
719. A little league hockey player gets cross checked across the throat. On exam he was spitting up blood, had trouble breathing:
- do an emergency cricothyroidotomy
 - refer to a hospital immediately
 - apply ice and stabilize the neck
- ***B***
720. A 3 year old child is brought into your office with flu- like symptoms. He is febrile with neck pain and torticollis. His family also had flu like symptoms:
- self resolving
 - quadriplegic
 - send immediately to hospital
 - send him to family physician
- ***C***
721. Walking on heels with feet inverted primarily tests which neurological level?
- L1
 - L4
 - S1
 - S3
- ***B***
722. A patient presents with right hand pain at night. There is numbness and tingling of thumb, index and middle finger. Which of the following is not a differential diagnosis for carpal tunnel syndrome
- C6 radiculopathy
 - ulnar palsy
 - pronator teres syndrome
 - de Quervain's
- ***B***
723. Numbness described as burning, or pins and needles is called?
- anesthesia
 - paresthesia
 - dysesthesia
 - analgesia
- ***B***
724. A 45 year old female patient presents with a recent history of episodic, severe vertigo with vomiting lasting 1-2 hours. During each episode she experiences tinnitus, diminished hearing, and a sense of fullness in her ears. The most likely diagnosis is _____ syndrome?
- Wallenberg's
 - Raynaud's
 - Maigne's
 - Meniere's
- ***D***
725. Which of the following is not seen in Parkinson's?
- rigid and flexed neck and trunk
 - staring with no blinking
 - dry facial skin
 - drooling
- ***C***
726. Extension of the tongue to test for taste is done to avoid sensory testing which other cranial nerve The tongue is protruded out during this test to avoid receptors from what other nerve;
- CN 1
 - CN 5
 - CN 9
 - CN 12
- ***C***
727. Scotomas sometimes precede migraine headaches. They originate from which area?
- optic nerve
 - retina
 - optic chiasma
 - occipital cortex
- ***D***
728. The accommodation reflex is categorized as which of the following:
- deep tendon reflex
 - superficial reflex
 - visceral reflex
 - pathological reflex
- ***C***
729. A complete transection of the optic chiasma would result in:
- loss of vision bilaterally/ nasal field area
 - loss of vision bilaterally/ temporal
 - complete loss of vision
- ***B***
730. Bilateral constriction of the pupil indicates;
- anticholinergic drugs
 - brain damage
 - sub-arachnoid hemorrhage
 - morphine
- ***D***
731. Horner's syndrome results from a disruption of the:
- sympathetic nervous system
 - parasympathetic nervous system
 - trigeminal nerve
 - oculomotor nerve
- ***A***
732. What nerve supplies the axilla:
- T1
 - T2
 - C2
 - C6
- ***B***
733. The test that produces/ increases endolymph flow in the inner ear:
- caloric stimulation
 - rotation test
 - Meniere's test
- ***A***
734. Using the dynamometer, which nerve is being tested indirectly;
- median
 - musculocutaneous
 - ulnar
 - radial
- ***A***
735. Chaddock's wrist sign is produced by stroking the:
- proximal forearm
 - distal forearm
 - lateral portion of the thumb
 - medial aspect of little finger
- ***B***
736. A 46 year old female presents with dull low back and buttock pain that radiates into the right lateral leg and top of foot after gardening and using a wheelbarrow. The pain is described as "shooting" into the 2nd, 3rd, and 4th toes. The following orthopedic tests show: SLR (+) 25°, Well leg raiser L-, Bechterew's R+, Bowstring R+, Kemps R+, Achilles +2 bilaterally, patellar +2 bilaterally. The pain is worse while defecating and decreased when leaning to the left. What disc is likely involved?
- L2- L3
 - L3- L4
 - L4- L5
 - L5- S1
- ***C***
737. What muscles would be most affected?
- ankle dorsi-flexors
 - ankle plantar flexors
 - toe extensors
- ***C***
738. What herniation is suggested by the findings?
- postero-lateral
 - postero-medial
 - sub-rhizal
 - central
- ***A***
739. What symptom would require referral to a specialist?
- diarrhea
 - sphincter flaccidity
- ***B***
740. A 37 year old male complains of progressive bilateral weakness and stiffness in both legs, right arm pain that radiates down to thumb and index finger. He has shooting pain down his right arm when he coughs or sneezes. Which of the following is the most likely diagnosis?
- spondylotic myelopathy
 - amyotrophic lateral sclerosis
 - diabetes mellitus
 - Arnold-Chiari syndrome
- ***A***
741. Which of the following shows a slow speech with a characteristic hesitation between syllables?
- dysphonia
 - parkinsonism
 - cerebellar aphasia
 - dysarthria
- ***D***
742. Examination reveals an increased deep tendon reflex with no superficial reflex. This would most likely indicate a lesion where?
- spinothalamic
 - extra-pyramidal
 - pyramidal
 - cerebellar
- ***C***
743. To adjust a subluxation of the trapezium, contact should be made proximal to:
- base of 1st metacarpal
 - base of 5th metacarpal
 - lunate
 - shaft of 4th metacarpal
- ***A***

744. During lateral flexion of the head to the right, the lower cervical spinous rotate to the ____ and C2 spinous rotate ____?
- right, right
 - right, left
 - left, right
 - left, left
- ***D***

745. The side lying position is most appropriate for manipulation of which of the following articulations?
- sternoclavicular
 - acromioclavicular
 - scapulothoracic
 - glenohumeral
- ***A***

746. Which of the following subluxation components will most likely cause biomechanical instability of vertebral motion segment?
- nerve compression
 - muscular spasm
 - facet joint fixation
 - ligamentous damage
- ***D***

747. To reduce a postero-lateral disc protrusion at L4-L5 using Cox flexion distraction technique, cephalad pressure is applied to:
- L4 spinous
 - L4 transverse
 - L5 spinous
 - L5 transverse
- ***A***

748. Which of the following adjustment procedures would apply the most depth to the lumbar spine?
- side lying push
 - side lying pull
 - knee/chest
 - hi-lo prone
- ***C***

749. During normal head motion, the atlanto-axial and atlanto-occipital interspace will ____ during flexion; and ____ during extension.
- increase; decrease
 - decrease; decrease
 - increase; decrease
 - decrease ; increase
- ***C***

750. With rotation to the left and contralateral rotation to the right what is the best adjustment?
- crossed pisiform
 - double thenar
 - straight pisiform
 - modified pisiform rotational move
- ***D***

751. What condition of the spine contraindicates osseous manipulation to the effected area?
- healed compression fracture
 - Scheuermann's disease
 - grade 1 sprain
 - ADI 6 mm
- ***A***

752. The least beneficial manipulation for carpal tunnel syndrome is;
- cuboid
 - T1
 - C6
 - capitate
- ***A***

753. Patient presents with anterior and superior ilium on the right. In the side lying position for a push adjustment technique, which is correct?
- The patient's left ilium is contacted by the doctor's right hand
 - The patient's left side is contacting the table
 - The patient's left knee is flexed with the toes tucked and right knee
 - The doctor's right anterior lateral thigh contacts the patient's pelvis
- ***B***

754. A 6 month old child is brought into the office with symptoms and muscle tension with tenderness at spinal muscular at T5- T7 which contact should you use:
- thenar pads
 - double pisiform
 - tips of middle and index fingers
- ***C***

755. Countries with a low incidence of intestinal disease is most likely have a high dietary intake of:
- simple carbohydrates
 - protein
 - fiber
 - phospholipids
- ***C***

756. Which of the following is not associated with osteopenia:
- increase in vitamin A
 - hypervitaminosis D
 - decrease in vitamin C
 - increase in calcium
- ***A***

757. Taurine and L-Carnitine are examples of:
- amino acids
 - lipoproteins
 - carbohydrates
 - fatty acid
 - phospholipid
- ***A***

758. A toxicity of Selenium causes:
- hair loss, dry skin (hyperkeratosis)
 - hepatolenticular disease
 - cardiomyopathy
 - kidney disease
- ***A***

759. What is least likely to be associated with hypokalemia:
- hypervitaminosis A
 - hypervitaminosis D
 - hypovitaminosis C
 - calcium deficiency
- ***d***

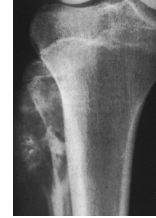
760. A 72 year old male presents with low back pain which radiates bilaterally into the lateral portion of his thighs. Minor's sign was positive. SLR and Lasègue's and leg extension tests were also positive. Achilles reflexes were diminished bilaterally. An AP radiograph revealed a missing right pedicle of L4. The appropriate management of this patient would be;
- provide care for low back
 - refer for further consultation
 - use only physiotherapy modalities
- ***B***

761. Which orthopedic test is depicted in the picture:



- Adson's abduction
 - apprehension
 - Dugas'
- ***C***

762. A 17 year old male with pain in the lateral calf. The following radiograph show an obvious abnormal proximal metadiaphyseal portion of the fibula. What would be the most likely cause of this according to the radiographs?



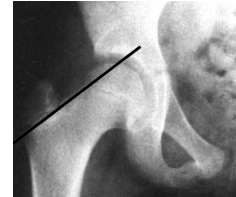
- fibrous dysplasia
 - osteomyelitis
 - osteosarcoma
 - post-traumatic periostitis
- ***C***

763. Identify the following;



- DISH
 - AS
 - neurotrophic arthropathy
 - discogenic spondylosis
- ***A***

764. Clinical application of the line drawn on the superior aspect of the femur in the following radiograph is;



- protrusion acetabuli
 - slipped femoral epiphysis
 - early sign of Legg-Calvé-Perthes
 - coxa valgus
- ***B***

765. An increase of the angle in the figure below could be caused by tightness of which of the following muscles;



- quadriceps
 - hamstrings
 - abdominal muscles
 - gluteus maximus
- ***A***

766. A 25 year old female presents with pain in the distal and proximal interphalangeal joints. Based on the radiographs below which is the likely diagnosis?



- rheumatoid arthritis
 - erosive osteoarthritis
 - psoriatic arthritis
 - scleroderma
- ***C***

767. Identify the anomaly in the radiograph below



- butterfly

768. What has the ground glass appearance--
*fibrous dysplasia

769. What is the most common primary malignancy of bone--
*multiple myeloma

770. female with exertional and nocturnal dyspnea--
*congestive heart failure

771. older female with headaches which are worse when talking on chewing--
*send for vascular biopsy

772. The jaw jerk tendon reflex is included in the evaluation of:

- CN 5
 - CN 7
 - C5 nerve root
 - C7 nerve root
- ***A***

773. The muscles of mastication are innervated by?
- CN V
 - CN VII
 - C5
 - C7
- ***A***

774. The Wexler scale is used to evaluate:
- muscle strength
 - reflex
- ***B***

775. Which finding may occur with a C6 nerve lesion:
- ↓ triceps reflex
 - ↓ brachioradialis reflex
 - weakened finger flexors
 - weak deltoid muscle
- ***B***

776. The patient presents with paresthesia in this area. What muscle would be weak?



- triceps
 - biceps
 - deltoid
 - finger flexors
- ***A***

777. An decrease in symptomatology while performing the procedure in the diagram below suggests;



- dural sleeve adhesions
 - nerve root compression
 - cervical sprain-strain
 - facet imbrication
- ***B***

778. Which orthopedic test is most accurate for the evaluation of a torn medial meniscus?

- anterior drawer sign
 - posterior drawer sign
 - Apley's compression test
 - Lachman's test
- ***C***

779. Subdeltoid bursitis is usually associated with calcific tendinitis of which tendon?

- supraspinatus
 - infraspinatus
 - teres minor
 - subscapularis
- ***A***

780. A positive Allen's test and Adson test done would indicate?

- thoracic outlet syndrome
 - carpal tunnel syndrome
 - cervical radiculopathy
- ***A***

781. Patient has +Allen's and +Adson's, which of the following is a probable cause?

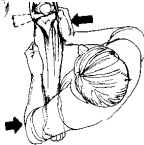
- pectoralis minor
 - pectoralis major
 - anterior scalene
 - posterior scalene
- ***C***

782. Upon examination, the standing patient presses both hands against a wall. He exhibits winging of the scapula. What muscle is weak?



- serratus posterior
 - serratus anterior
 - levator scapula
 - latissimus dorsi
- ***B***

783. What force is examiner applying to the patient's knee?



- valgus
 - varus
 - flexion
 - extension
- ***A***

784. The patient presents with right hip pain and pain over the L5 area. What orthopedic test is indicated for this patient?



- Adam's bending
 - Lewin's
 - Adams S1 belt
 - Lewin Gaenslen
- ***A***

785. The condition depicted in the following diagram is the likely result of which of the following conditions?



- lateral epicondylitis
 - olecranon bursitis
 - supracondylar fracture
 - pulled elbow (dislocated radial head)
- ***B***

786. An 8 year old male presents with pain and swelling at the inferior patellar pole for two weeks. It is tender on palpation worse with strenuous exercise would most likely be?

- chondromalacia patella
 - Osgood-Schlatter
 - patellar bursitis
- ***B***

787. Which condition is more common in females than males?

- osteoarthritis
 - rheumatoid arthritis
 - Reiter's
 - psoriatic arthritis
- ***B***

788. What muscle if weak will decrease the angle?



- iliopsoas
 - abdominals
 - hamstrings
 - gluteus medius
- ***B***

789. A 16 year old female with a left high shoulder and right high hip. Patient experiences pain in thoracolumbar area. Pain is experienced after exercise. What is the differential diagnosis?

- DISH
 - STILLS
 - Idiopathic Scoliosis
- ***C***

790. In a patient with anhidrosis and ptosis, which other finding may be present?

- meiosis
- ***A***

791. A 25 year old male, presents with low back and heel pain, joint pain and urethritis. What other additional finding might be seen?

- bloody diarrhea
 - conjunctivitis
 - fatigue
- ***B***

793. A 32 year old woman experiences dyspnea 1 week after appendectomy;

- pulmonary embolism
- ***A***

794. What is the best test for hip pathology?

- Fabere-Patrick's
 - Gaenslen's
 - SLR
- ***A***

795. There are simple squamous epithelial cells in a urine sample. What does this indicate?

- hematoma
 - contaminated sample
 - normal
- ***D***

796. ESR increases in:

- osteoarthritis
 - D.I.S.H.
 - ankylosing spondylitis
 - angina pectoris
- ***C***

797. Due to the attachments of the obliquus capitis inferior, when the atlas rotates anterior, what happens?

- the C2 spinous rotates away from the anterior side
 - the C2 spinous rotates toward the anterior side
 - the C2 spinous doesn't move
 - the C2 spinous goes posterior and inferior
- ***B***

798. McBurney's point positive in
- acute appendicitis

799. McBurney's point is located?

- right upper quadrant
- right lower quadrant
- left upper quadrant
- left lower quadrant

B

800. An increased intra-cranial pressure is associated with:

- papilledema

801. A patient presents with urethritis, arthritis, and myalgia. What other symptom is most likely to be presented?

- nystagmus
 - scotoma
 - upper motor neuron lesion
 - conjunctivitis
- ***D***

802. A 65 year old male presents with urinary incontinence, urgency, hesitancy, polyuria, and incomplete bladder emptying. What procedure would help determine the diagnosis?

- alkaline phosphatase levels
 - digital rectal/prostate exam
 - KUB
 - 24 hour urine collection
- ***B***

803. What does the patient have?

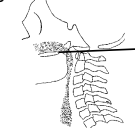


- RA
 - gout
 - OA
 - CPPD
- ***C***

804. What gives a (+) Murphy's punch test?

- renal artery stenosis
 - aortic aneurysm
 - ureteral obstruction
 - cholecystitis
- ***A***

806. Identify the condition related to the line in the diagram below:



- basilar invagination
 - stenosis
- ***A***

807. A 65 year old male comes in your office with chronic lumbar/sacral pain, radiographs show his condition to be related to the L5/S1 segment. Which is the most likely diagnosis?



- transitional segment
 - acute disc syndrome
 - discogenic spondylitis
 - ankylosing spondylitis
- ***A***

808. Which of the structures would be affected by the finding on diagram A?



- a. biceps brachii
 - b. flexor digitorum
 - c. flexor carpi radialis
 - d. triceps brachii
- ***B***

809. Rebound testing is used to assess the integrity of which of the following?

- a. cerebellum
 - b. basal ganglia
 - c. spinal cord
 - d. primary motor cortex
- ***A***

810. The brachioradialis reflex is associated with which disc level?

- a. C4-C5
 - b. C5-C6
 - c. C6-C7
 - d. C7-T1
- ***B***

811. What nerve roots innervate the finger flexors?

- a. C5
 - b. C6
 - c. C7
 - d. C8
- ***D***

812. What supplement is associated with the glucose tolerance factor and is part of sugar and fat metabolism?

- a. zinc
 - b. vitamin C
 - c. selenium
 - d. chromium
- ***D***

813. The patient experiences relief of symptoms when they place their hand on top of head:

- a. hyperabduction syndrome
 - b. thoracic outlet syndrome
 - c. cervical radiculopathy
 - d. carpal tunnel syndrome
- ***C***

814. Shock-like sensation during passive flexion of the cervical spine indicates which of the following:

- a. ankylosing spondylitis
 - b. multiple sclerosis
 - c. muscular dystrophy
 - d. Parkinson's disease
- ***B***

815. What nerve is associated with the finding in the diagram below?



- a. dorsal scapular
 - b. long thoracic
 - c. supra scapular
 - d. axillary
- ***B***

816. Herpes zoster affects which area?

- a. anterior horn
 - b. posterior horn
 - c. anterior nerve root
 - d. posterior nerve root
- ***D***

817. Patient has multiple punch-out lesions of skull. What lab test best?

- a. acid phosphatase
 - b. alkaline phosphatase
 - c. immunoelectrophoresis
 - d. ESR
- ***C***

818. Which is least likely to have an increased ADI?

- a. D.I.S.H
 - b. psoriatic
 - c. rheumatoid arthritis
 - d. systemic lupus erythematosus
- ***A***

819. Penetration is

- a. MAS
 - b. KVP
- ***B***

820. A patient with pain from the gall bladder will experience the pain where?

- a. right upper quadrant
 - b. right lower quadrant
 - c. left upper quadrant
 - d. left lower quadrant
- ***A***

821. Where do you find pain with appendicitis?

- a. right upper quadrant
 - b. right lower quadrant
 - c. left upper quadrant
 - d. left lower quadrant
- ***B***

822. A 30 year old male presents with neck stiffness. The radiographs show calcification of the anterior longitudinal ligament. What is the most likely diagnosis?

- a. AS
 - b. DISH
 - c. diabetes mellitus
- ***A***

823. Which cell type would likely be elevated in a case of bronchial asthma?

- a. eosinophils
 - b. monocytes
 - c. basophils
 - d. lymphocytes
 - e. reticulocytes
- ***A***

824. When would you see an increase in TSH?

- a. hyperthyroid
 - b. hyper-parathyroid
 - c. hypothyroidism
 - d. decreased pituitary function
- ***C***

825. Test of what cranial nerve would identify a vestibular problem?

- a. CN X
 - b. CN VIII
 - c. CN V
 - d. CN XI
- ***B***

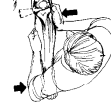
826. Which of the following is contraindicated for upper cervical adjustment?

- a. DISH
 - b. RA
 - c. SLE
 - d. Degenerative arthritis
- ***B***

827. A patient presents with colicky pain in the right shoulder blade and right upper quadrant region after a fatty meal:

- a. hiatal hernia
 - b. peritonitis
 - c. cholecystitis
 - d. perforated gastric ulcer
- ***C***

828. What is the doctor in the diagram testing?



- a. anterior cruciate ligament
 - b. posterior cruciate ligament
 - c. medial collateral ligament
 - d. lateral collateral ligament
- ***C***

829. Gaenslen's test is specific for which of the following?

- a. hip
 - b. sacroiliac
 - c. lumbo-sacral
 - d. disc protrusion
- ***B***

830. Right elevation of the thoracic spine indicates which of the following.



- a. Sprengel's deformity
 - b. Gibbus formation
 - c. structural scoliosis
- ***C***

831. What is Mannkopf's for?

- a. malingering

832. Identify the segmental innervation in the diagram below?



- a. C4-C5
 - b. C5-C6
 - c. C6-C7
 - d. C7-T1
- ***A***

833. Dermatome to the groin the femoral area is:

- a. L1
 - b. L2
 - c. L3
- ***A***

834. Identify the associated spinal level:



- a. C5/C6
 - b. C6/C7
 - c. C7/T1
 - d. T1/T2
- ***B***

835. A deficiency in which supplement would impair bone growth?

- a. manganese
 - b. magnesium
 - c. calcium
 - d. phosphorus
- ***C***

836. An elderly woman presents with shortness of breath, an unexplained 15 pound weight loss, and localized mid-back pain. There were no neurological findings. X-ray showed a mass in the T7 body. What should be your treatment plan?

- a. soft tissue manipulation and therapy
 - b. spinal manipulation
 - c. exercise program
 - d. immediate referral to an MD
- ***D***

837. A patient presents with a swollen ankle that he injured six weeks earlier. The injury has appeared to have healed but when patient attempts to return to their normal exercise program, the ankle becomes painful and swollen. Initial radiographs and follow-up x-rays that were taken 2 weeks later were negative. What would be the best course of action?

- a. plaster cast and crutches
 - b. gently mobilize all joints and adjust the talus
 - c. tape the ankle and exercise for rehab
 - d. CT to evaluate for occult fracture or soft tissue damage
- ***D***

838. Which of the following is a contraindicated exercise for a patient with osteoporosis?

- a. flexion
 - b. extension
 - c. rotation
 - d. lateral bending
- ***B***

839. What is the most appropriate segment to adjust in a patient with meralgia paresthetica?

- a. C6
 - b. T7
 - c. L2
 - d. L5
- ***C***

840. Mobilization is better than manipulation for which joint?

- a. acromio-clavicular joint
 - b. glenohumeral joint
 - c. scapulo-thoracic joint
 - d. sternoclavicular joint
- ***B***

841. What line of drive would be used to correct the segment indicated in the diagram below?

0

0

0

- a. lateral to medial (side posture pull si ap)
 - b. medial to lateral
 - c. posterior to anterior
 - d. with torque
- ***A***

842. Which of the following is not a static palpation finding?

- a. flexion malposition
 - b. anterolisthesis
 - c. interspinous gapping
 - d. aberrant motion
- ***D***

843. For a thoracic adjustment with the patient lying supine, what is the likely position of the patient?

- a. arms across the chest
 - b. one arm across the chest
 - c. arms down the side
- ***A***

844. What is the best contact for a patient with a T4 lateral fixation and a T5 extension fixation?

- a. hypothenar : T3
 - b. hypothenar : T5
 - c. clenched fist : T3
 - d. clenched fist : T5
- ***D***

845. A 21-year old male presents with a swollen right knee. He is limping and favoring his right side. He stated he was playing Frisbee when his right foot got stuck in hole. He fell and noticed immediate swelling to the area. He experienced similar type of injury 6 months ago, at which time he heard a "pop". He had no insurance, so did not see doctor. This time, he self-treated with ice and rest and was able to resume regular activities in two weeks, though weak. His knee swelled up again today. What is the likely diagnosis?

- a. ilio-tibial band syndrome
 - b. anterior cruciate ligament sprain
 - c. proximal fibular fracture
 - d. lateral collateral ligament sprain
- ***B***

846. What test would be helpful to diagnose the patient's condition?

- a. Thompson's
 - b. Homan's
 - c. Lachman's
 - d. Ober's
- ***C***

847. What other injury may be found?

- a. fibula head fracture
 - b. medial meniscus tear
 - c. patella dislocation
 - d. quadriceps rupture
- ***B***

848. What imaging study would most be indicated at this time?

- a. plain film
 - b. MRI
 - c. CT
 - d. arthrography
- ***A***

849. A man went bowling the night before. He woke up with intense pain at the medial aspect of his elbow. Examination reveals resisted flexion and pronation increases the pain. What is the likely diagnosis?

- a. acute epicondylitis
 - b. tear of the medial ligament
 - c. avulsion fracture
 - d. fracture
- ***A***

850. What test would you perform?

- a. reversed Cozen's
 - b. Mill's
 - c. Tinel's
 - d. Yergason's
- ***A***

851. What is the involved tissue?

- a. osseous
 - b. muscular
 - c. ligamentous
 - d. cartilaginous
- ***C***

852. A woman presents with shock like pain in her shoulder and arm. Valsalva and Spurling's test were positive. She also demonstrates restricted extension of the arm. She has pain indicated in the diagram below. What is the most likely diagnosis? [We see a picture of a woman with the deltoid area marked in black. They tell us that the pain is there.](#)

- a. multiple sclerosis
 - b. disc lesion
- ***B***

853. What other exam finding would you expect to see?

- a. decreased biceps reflex
 - b. decreased triceps reflex
 - c. (+) Lhermitte's
- ***A***

854. What would you use the wall test to evaluate?

- a. serratus anterior, long thoracic nerve

855. What nerve is involved?



- a. suprascapular
 - b. subscapular
 - c. axillary
 - d. long thoracic
- ***D***

856. Which orthopedic test would a positive finding indicate pectoralis Minor entrapment?

- a. Adson's
 - b. Wright's
 - c. Eden's
 - d. Spurling's
- ***B***

857. (Drawing of a female, P/A view, with an arrow pointing to the right neck and shoulder area, and a darken area at the medial side of right forearm, and 4th and 5th fingers, labeled "paresthesia") A 28 year old female presents with a hyperflexion-hyperextension injury from one week ago. She complains of diffuse right neck stiffness, pain and paresthesia on right medial forearm. X-ray findings includes anterolisthesis of C4 on C5, and no gross fractures. What is the cause of her complaint?

- a. cervical spine sprain/strain
 - b. C4 anterolisthesis
 - c. cervical disc
 - d. thoracic outlet syndrome
- ***C***

858. What nerve root is involved?

- a. C5
 - b. C6
 - c. C7
 - d. C8
- ***D***

859. A 22 year old male was playing basketball and now complains of left knee pain. He feels a "bruise" behind the knee, on the medial side. The pain is aggravated with complete weight bearing and when crossing the leg while sitting down. What is the likely cause of the pain?

- a. Baker's cyst
 - b. iliotibial band syndrome
 - c. lateral collateral ligament
 - d. lateral meniscus
- ***A***

860. An 18 year old rugby player presents with right shoulder pain which was due to an impact injury to his shoulder. What is the most probable cause of the pain?

- a. shoulder impingement syndrome
 - b. adhesive capsulitis
 - c. AC joint separation
 - d. deltoid bursitis
- ***C***

861. A college football player (he is a lineman) comes in to your office complaining of a persistent, painless, enlarging mass on the extensor side of the elbow. He tells you he has had no recent traumatic event other than football practice. What is your initial diagnosis?

- a. ruptured triceps tendon
 - b. olecranon bursitis
 - c. olecranon bone spur
 - d. dislocation of the radial head
- ***B***

862. Which carpal bone is associated with DeQuervain's disease?

- a. lunate
 - b. hamate
 - c. scaphoid
 - d. triquetrum
- ***C***

863. The following picture is _____ test, and is used for _____:



- a. Adam's ; anatomical scoliosis
 - b. Adam's ; functional scoliosis
- ***A***

864. At what age is this condition most often detected?



- a. 0-3
 - b. 3-5
 - c. 5-10
 - d. 10+
- ***D***

865. A football player presents having suffered a "stinger". This would be due to?

- a. nerve stretch
 - b. I.V.F. encroachment
 - c. contusion
 - d. compression
- ***D***

866. In a patient with a disc protrusion, which posture would aggravate the symptoms most?

- a. patient prone
 - b. supine knees flexed
 - c. flexion
 - d. extension
- ***C***

867. Based on the area of pain in the diagram, you would expect muscle weakness of which of the following?



- a. wrist flexors
 - b. finger flexors
 - c. wrist extensors
 - d. finger extensors
- ***B***

868. (description of injury to supraspinatus.) What would be your initial management of the patient?

- a. active exercise
 - b. passive exercise
- ***B***

869. An increase in total bilirubin and indirect bilirubin suggests?

- a. obstructive
 - b. cirrhosis
 - c. hemolytic
- ***D***

870. Laboratory findings reveal proteins and pus in the urine. This would suggest the problem is in which area?

- a. glomerulus
 - b. tubule
 - c. bladder
- ***A***

871. What would you recommend in a patient with a history of renal calculi?

- a. stop taking Vitamin C

872. What blood change would most likely be seen in a patient with renal calculi?

- a. hypocalcemia
 - b. hypercalcemia
 - c. hypokalemia
 - d. hyperkalemia
- ***B***

873. Which lymph nodes cannot be palpated in the axillary fossa?

- a. subscapular
 - b. pectoral
 - c. lateral
 - d. epitrochlear
- ***D***

874. A 15 year old male presents with a history of surgery for Wilm's tumor. The staples are due to the surgery. What complication is shown in the x-ray? (x-ray of the lower thoracics and lumbar. you could see surgical staples, a pedicle was missing in one of the lower thoracics.)

- a. metastasis
 - b. DJD
 - c. juvenile arthritis
 - d. Scheuermann's
- ***A***

875. A 15 year old male presents with fever, and a painful, red swollen knee. History reveals no trauma, and a strep throat 3 weeks prior. What is your preliminary diagnosis?

- a. rheumatoid arthritis
 - b. rheumatic fever
 - c. gout
 - d. psoriasis
- ***B***

876. What is the next step in physical exam?

- a. inspect the throat
- b. percuss the heart
- c. auscultate the heart
- d. internal eye exam

C

877. What lab test will be most significant? (there was no ASO as choice)

- a. increased ESR
- b. rheumatoid factor

A

878. If no other problems other than the neck and knee pain were present, what is most likely prognosis?

- a. his knee is going to get worse for the next 2 to 4 months
- b. his knee should get better in the next month
- a. will develop splenomegaly in 1 month
- b. will resolve completely in 1 month

B

879. A child with rheumatic fever should get checked for:

- a. pulmonary stenosis
- b. aortic regurgitation
- c. problem with the subclavian artery
- d. mitral regurgitation

D

880. Which of the following hernias exits below the inguinal ligament and never enters the scrotum?

- a. inguinal
- b. indirect
- c. femoral
- d. direct

C

881. Which of the following is NOT an abnormal variant around the mouth?

- a. Koplik spots
- b. Fordyce spots
- c. torus palatinus
- d. geographic tongue

B

882. Bilateral exophthalmos is seen in



- a. hypothyroidism
- b. Grave's
- c. Addison's
- d. Cushing's

B

883. With the diaphragm of the stethoscope, the mitral valve best heard?

- a. second intercostal space on the right parasternally
- b. second intercostal space on the left parasternally
- c. fifth intercostal space on the left parasternally
- d. fifth intercostal space on the left, midclavicular

D

884. In a person is suspected to have rheumatoid arthritis, you should send them out for a blood test to check:

- a. ANA
- b. ESR
- c. CPK

B

885. On palpation of the abdomen what is the average size of the abdominal aorta?

- a. 2 cm
- b. 4 cm
- c. 5 cm
- d. 6 cm

A

886. What other symptoms would you expect in a 24 year old female who presents with supra-pubic pain, pyuria, and dysuria?

- a. urgency
- b. fever and chills
- c. hematuria
- d. vaginal discharge

A

887. Which of the following may result in a false abnormally low blood pressure reading?

- a. loose cuff
- b. cuff is too narrow (thin)
- c. brachial artery is below the heart
- d. did not listen for the first sound of an auscultatory gap

D

888. A 58 year old female presents with scaly lesions in scalp and in extensor surface of forearm. She has pitting of the nails. Orthopedic and neurological tests are negative. She complains of stiff fingers, and low back pain. X-ray findings reveal fused SI joints unilaterally. Based on this information, to whom would you refer?

- a. rheumatologist
- b. endocrinologist
- c. neurosurgeon
- d. vascular surgeon

A

889. What lab test will be most diagnostic?

- a. ESR
- b. ASO titer
- c. HLA-B27

C

890. Which exam procedure should you perform next?

- a. MRI
- b. CT
- c. flexion/extension cervical spine x-ray

C

891. What physiotherapy modality would be most appropriate (provide the most relief)?

- a. finger manipulation
- b. underwater US
- c. moist heat
- d. strengthen joints

C

892. A headache that refers pain to the cheek bones is most suggestive of?

- a. tension
- b. cluster
- c. migraine
- d. sinus

D

893. What would you expect to find in a patient with Raynaud's disease?

- a. normal pulse
- b. abnormal heart auscultation
- c. hypertension
- d. hypotension

A

894. A patient presents with acute dry cough and extreme shortness of breath would likely suggest:

- a. pulmonary TB
- b. pulmonary embolism
- c. bronchiectasis
- d. pulmonary tumor

B

895. A 60 year old male presents with stiffness of the neck. He is a returning patient who has had good results. He wakes up with trouble breathing, so he sleeps in a recliner. Which system would NOT be relevant to his case:

- a. cardiovascular
- b. respiratory
- c. gastro-intestinal
- d. genito-urinary

D

896. While performing an examination on a 12 year old, you hear a friction rub on the anterior chest. How do you differentiate pericardial effusion (pleuritis) from pleural friction rub?

- a. hold breath
- b. left lateral recumbent position
- c. auscultate on the posterior
- d. have the patient lean forward

D

897. Inspection reveals the patient's chest is shaped like the keel of a ship. This is known as:

- a. barrel chest
- b. pectus carinatum
- c. pectus excavatum
- d. flail chest

B

898. Internal eye exam reveals an increased cup to disk ratio. This suggests:

- a. increase intracranial
- b. increase intraocular
- c. decrease intracranial
- d. decrease intraocular

B

899. The patient states that he has a sedentary lifestyle, he has been gaining weight, and was anxious for unknown reasons, which he referred to as a psychosis. To whom would referral NOT be indicated refer?

- a. neurologist
- b. psychologist
- c. exercise physiologist
- d. endocrinologist

A

900. A patient has right upper quadrant pain with a positive Murphy's sign. Which of the following would you request as a follow-up?

- a. plain radiographs
- b. ultrasound
- c. MRI

B

901. A guy presents with unilateral chest pain worse with deep respiration lack of motion at the costotransverse joint. What should be your next step?

- a. EKG
- b. rib adjustment
- c. chest radiographs

B

902. Which of these is not a complication of systemic lupus erythematosus?

- a. osteonecrosis
- b. compression fracture
- c. osteopetrosis

C

903. They show an ap x-ray of the hand with erosion of the distal phalanges.) Which of the following conditions is suggested by the radiographs below?

- a. rheumatoid arthritis
- b. psoriatic arthritis
- c. erosive arthritis
- d. degenerative arthritis

B

904. What condition is indicated by these two radiographs? (x-ray, Yochum page 1298, picture B and C) The X-rays were: one of a normal healthy knee and the other of a seemingly normal ankle with distal tib/fib.

- a. hemophilia arthritis
- b. Pellegrini-Stieda
- c. avulsion fracture
- d. osteochondritis dessicans

D

905. What is the trade-mark sign for Paget's disease on x-ray?

- a. ivory white vertebra

906. Which one of these is NOT a common cause of a single white vertebra

- a. Paget's
- b. hyperparathyroidism
- c. osteoblastic metastatic carcinoma'
- d. Hodgkins lymphoma

B

907. A 20 year old man presents with a non expansile single ivory white vertebra with anterior vertebral body scalloping

- a. Paget's
- b. Hodgkins' lymphoma
- c. osteoblastic metastatic carcinoma

B

908. This area is a common site for which of the following conditions?



- a. compression fracture
- b. knife clasp syndrome
- c. DJD
- d. spondylolisthesis
- e. disc herniation

A

909. xray of a hip with advanced multiple myeloma

910. A person dives into a swimming pool and hits his head on the bottom this can cause a

- a. Jefferson fracture
- b. hangman's fracture

A

911. Which fracture does this represent?



- a. Jefferson's
- b. clay shoveler's
- c. hangman's
- d. Barton's

C

912. A person with ankylosing spondylitis will have
- pectus carinatum
 - pectus excavatum
 - barrel chest
 - decrease chest expansion
- ***D***

913. (2 x-rays, one of lateral c/s, and one of APOM, the lateral C/S shows fracture of posterior arch of C1, and APOM with fracture of odontoid (at the base) Which fracture is shown in the x-ray?
- Jefferson
 - clay shoveler's fracture
 - os odontoidum
 - posterior arch of C1 and odontoid fracture
- ***D***

914. What study is best to confirm a pars defect?
- bone SPEC
 - MRI
 - US
 - CT
- ***D***

915. What is the best study for the spinal cord?
- CT
 - MRI
- ***B***

916. A female fell with outstretched arm and complains of hand pain, indicated in the picture. Most probable diagnosis?



- scaphoid fracture
 - lunate
 - triquetrum
- ***A***

917. What would you find with ankylosing spondylitis and not with osteoarthritis?
- joint pain
 - stiffness
 - hand pain
 - iritis
- ***D***

918. A young boy with decrease chest expansion. More stuff related to AS...What is characteristic on x-ray first?
- a. **obliteration of SI joint**

919. What is the best diagnosis?



- enchondroma
 - bone infarct
 - osteosarcoma
 - osteochondroma
- ***B***

920. Which of the following is contraindicated in the conventional management of Pellegrini-Stieda?
- pulsed ultrasound
 - cryotherapy
 - interferential
 - aggressive massage
- ***D***

921. With a patient with heel spur, what modality would you use?
- ultrasound
 - interferential
 - diathermy
 - galvanic
- ***A***

922. Why is phonophoresis more advantageous than iontophoresis?
- more choices of reagent
 - administrator does not have to be there
 - deeper penetration
 - less bone burning
- ***D***

923. What modality is used for the visualization of fungus of the scalp?
- ultrasound
 - SW diathermy
 - ultraviolet
 - interferential
- ***C***

924. What supplement would be indicated in carpal tunnel syndrome?
- pyridoxine
 - folic acid
 - cyano-cobalamin
 - betacarotene
- ***A***

925. Vitamin B6 is also known as:
- a. **pyridoxine**

926.

927. What B-vitamin is associated with anemia?
- B-12
 - thiamin
 - riboflavin
- ***A***

928. Which of the following is not a recommended diet in a patient with celiac disease?
- increase sodium intake
 - restrict wheat intake
 - green vegetables
- ***A***

929. (drawing of a kid sitting at the edge of table, the right knee around the tibia tuberosity is swollen) What question should you ask the patient to help with the diagnosis?
- Does your brother or sister have the same condition?
 - Any family history of the condition
 - Does the pain increase with rest?
 - Does activity increase the pain?
- ***D***

930. When taking a case history, which of the following is not an open-ended question?
- Describe your condition.
 - Tell me about your symptoms.
 - Go on!
 - Is the pain severe at night?
- ***D***

931. Which of the following is associated with anterior horn
- syringomyelia
 - multiple sclerosis
 - tabes dorsalis
 - poliomyelitis
- ***D***

932. If a patient presents with a diminished reflex (+1) bilaterally, what would you do to help elicit the reflex?
- stroke the tendon gently
 - tell patient to isometrically contract the testing muscle
 - tell patient to isometrically contract the opposite leg muscle
 - tap and hold with the reflex hammer
 - a slow glancing bow (progressive)
- ***C***

933. Paralysis of the orbicularis oculi muscle may result from injury to which nerve?
- oculomotor
 - trigeminal
 - facial
 - trochlear
- ***C***

934. The patient complains of pain burning and prickling pain in the area indicated by the diagram. This would be known as:



- hyperesthesia
 - paresthesia
 - anesthesia
 - hemiesthesia
- ***B***

102. Ultrasound would be most effective in treatment of;
- erysipelas
 - herpes zoster
 - salpingitis
 - athletes foot
 - osteoporosis
- ***b***

103. The most commonly injured tissue in knee injury;
- medial collateral
 - lateral collateral
 - anterior cruciate
 - joint capsule
- ***d***

104. Finklestein's test is associated with;
- Dupuytren's contracture
 - Volkmann's ischemia
 - carpal tunnel syndrome
 - DeQuervain's disease
- ***d***

105. To test for arterial occlusion of the wrist the following test would be performed;
- Allen's
 - Phalen's
 - Eden's
 - Wright's
- ***a***

106. Yeargason's test is used to check;
- rotator cuff
 - lateral epicondylitis
 - sub-acromial bursitis
 - bicipital tendinitis
- ***d***

107. Decreased chest expansion is an early sign of;
- osteoarthritis
 - Ollier's disease
 - ankylosing spondylitis
 - menopausal osteoporosis
- ***c***

108. The most common clinical feature of vertebral basilar arterial insufficiency is;
- headache
 - vertigo
 - hemiparesis
 - visual disturbances
- ***b***

109. The exercise for the shoulder that requires the patient to bend over at the waist, allowing the arm to hand like a pendulum at 90° to the floor. A weight is placed in the hand and the arm is moved through various arcs to increase ranges of motion;
- Codman's exercises
 - DeLorme exercises
 - deltoid exercises
 - rotator cuff resistive exercises
- ***a***

110. The type of headache most commonly found in cases of increased intracranial pressure of a brain tumor;
- morning headache
 - evening headache
 - morning-evening headache
 - afternoon headache
- ***c***

111. The etiology of a "frozen shoulder" is considered to be;
- trauma
 - infection
 - excessive muscular activity
 - lack of muscular activity
- ***d***

112. Tension headaches occur as a result of;
- discogenic disease
 - sustained muscle contraction
 - sensory nerve root pressure
 - motor nerve root pressure
- ***b***

113. The type vertigo most frequently seen in elderly patients is;
- drug intoxication
 - postural
 - blood sugar alteration
 - traumatic
- ***b***

114. The most common level of cervical dislocation occur at;
- C3-4
 - C4-5
 - C5-6
 - C6-7
- ***c***

115. DeQuervain's stenosing tenosynovitis most commonly affects;
- adductor pollicis longus
 - abductor pollicis longus
 - extensor hallucis longus
 - biceps femoris
- ***b***

116. The most common type of knee dislocation is;
 a. anterior
 b. posterior
 c. lateral
 d. medial
 ****a***

117. A rare, non-hereditary condition characterized by attacks of painful swelling of the costo-cartilage, and is an important as a differential diagnosis of angina and intrathoracic malignancy;
 e. transient synovitis
 f. Tietze's syndrome
 ****b***

118. Which mineral is important in the regulation of parathyroid hormone secretion;
 a. copper
 b. magnesium
 c. manganese
 d. zinc
 ****b***

119. Which vitamin is considered to be a possible anti-stroke agent;
 a. B1
 b. B2
 c. B12
 d. C
 ****c***

120. An 84 year old male presents with muscle rigidity, tremors, flexed posture, and an expressionless face is likely to have;
 a. multiple sclerosis
 b. Parkinson's
 c. Paget's
 d. ankylosing spondylitis
 ****b***

121. A patient presents with anemia characterized by normal reticulocyte count, low hematocrit but MCV and MCH are normal;
 a. Crohn's disease
 b. hemolytic anemia
 c. iron deficiency disease
 d. vitamin B12/folate anemia
 ****a***

122. A patient presents with anemia characterized by a low reticulocyte count, low hematocrit but MCV and MCH are normal;
 a. Crohn's disease
 b. hemolytic anemia
 c. iron deficiency disease
 d. vitamin b12/folate anemia
 ****b***

123. A jerky yielding then a holding up of muscle tone on passive range of motion suggests which type of hypertonia?
 a. spasticity
 b. lead pipe rigidity
 c. cogwheel rigidity
 d. knife-clasp rigidity
 ****c***

124. Hyperthyroidism is associated with which exam finding?
 a. slumped posture
 b. hoarse voice
 c. coarse hair
 d. fast speech
 ****d***

125. A patient complains of painful and urgent urination of several days duration. Urinalysis reveals numerous casts and a moderate number of RBC's and WBC's. The most likely area for palpable point tenderness would be;
 m. manubriosternal joint
 n. sacroiliac articulation
 g. costovertebral joint
 h. greater sciatic notch
 i. superior iliac crest
 ****c***

126. Which of the following is thought to be a peripheral nervous system equivalent of post-infectious encephalomyelitis;
 a. Guillain-Barre syndrome
 b. poliomyelitis
 c. tardive dyskinesia
 d. syringomyelia
 e. Reye's syndrome
 ****a***

127. Which of the following is inappropriate in the case management of a patient with spondylolisthesis?
 a. orthotic support
 b. weight reduction
 c. abdominal strengthening
 d. bilateral heel lifts
 ****d***

128. A patient is placed in side posture, with the right side down. The doctor contacts the left mamillary process and applies the thrust with counterclockwise torque. Which of the following misalignments would this adjustment be indicated?
 a. left body rotation, left lateral flexion
 b. right body rotation, right lateral flexion
 c. left body rotation, right lateral flexion
 d. right body rotation, left lateral flexion
 ****c***

129. A 26 year old construction worker presents with low back pain which is central and does not radiate. He has had this condition since age 17, but it has increased in severity over the past year. There are no neurological abnormalities, but there is decreased thoracolumbar ranges of motion with decreased chest expansion. Which laboratory procedure is least useful in confirming your initial impression?
 a. ANA
 b. alkaline phosphatase
 c. HLA-B27
 d. C-reactive protein
 e. erythrocyte sedimentation rate
 ****b***

130. When correcting a side bending fixation of the cervical spine with the patient lying supine, the doctor's position is normally;
 a. at the head of the table favoring the side of fixation
 b. on the side of fixation facing headward
 c. at the foot of the table favoring the side of fixation
 d. on the side opposite the fixation facing headward
 ****a***

131. The prognosis for a nine year old male with transient synovitis of the hip;
 a. poor; it recurs chronically
 b. good; residuals are not frequent
 c. guarded because of chronic septicemia
 d. fair; residuals are likely
 e. excellent; it is self-limiting
 ****e***

132. During lateral bending, the intervertebral disc bulges;
 a. posteriorly
 b. circumferentially
 c. on the convex side of the curve
 d. on the concave side of the curve
 ****d***

133. Which of the following types of exercise is indicated for a frozen shoulder;
 a. active
 b. passive
 c. postural
 d. pressive resistance
 ****b***

134. A 22 year old collegiate swimmer complains of vague shoulder discomfort and weakness. Examination reveals winging of the scapula on the affected side. Which supportive technique would be most useful in preventing further muscle atrophy?
 a. contrast baths in a Hubbard tank
 b. heel lift on the affected side
 c. electrical stimulation
 d. ice and compression of the thorax with a rib belt
 ****c***

135. A 26 year old patient presents with symptoms resembling a lumbar disc protrusion. There is an antalgic posture and a positive Laseque's on the affected side. Lower extremity reflexes are +2 and symmetrical, with no apparent muscle weakness. What is the indicated case management?
 a. referral to a neurosurgeon
 b. chiropractic adjustments with re-evaluation in two weeks
 c. referral to a physical therapist
 d. chiropractic adjustments with re-evaluation in six months
 ****b***

136. A high school foot ballplayer hyper-extended his knee during a game. When strapping the knee to prevent recurrence of the injury, the leg should be positioned with the knee;
 a. slightly flexed
 b. externally rotated
 c. fully flexed
 d. internally rotated
 ****a***

137. Physical examination of a 29 year old female hairdresser with right hand numbness of one month duration reveals a moderate carpal tunnel syndrome. Which of the following adjunctive techniques is contraindicated in the conservative treatment of this patient?
 a. immobilization with an elastic wrist band
 b. supplementation of vitamin B complex with emphasis on B6
 c. pulsed short-wave diathermy to the wrist
 d. underwater ultrasound to the wrist
 ****a***

138. Which of the following pelvic subluxations is represented in the following diagram?



a. posterior-inferior rotation of the sacrum on the right
 b. inferior innominate with medial movement of the PSIS on the right
 c. anterior-inferior rotation of the sacrum on the left
 d. superior innominate with medial rotation of the PSIS on the left
 ****b***

139. A patient presents with recurrent attacks of deafness, tinnitus, vertigo, nausea, vomiting, and nystagmus. He most likely has;
 a. otitis media
 b. Meniere's
 c. inflammation of the eustachian tube
 d. perceptive deafness
 ****b***

140. The area of the spine that would be adjusted in a case of asthma;
 a. T1
 b. T2
 c. T3
 d. T4
 ****c***

141. Cervical traction is not indicated in;
 a. whiplash
 b. cervical disc injuries
 c. heart disease
 d. migraine headaches
 e. arthritic conditions
 ****c***

142. Which of the following signs would be most indicative of bacterial endocarditis;
 A. petechiae
 B. jaundice
 C. clubbing of the fingers
 D. cherry red skin
 ****a***

143. Which of the following is the least significant finding in a case of low back ache;
 A. leg weakness
 B. constipation and diarrhea
 C. diabetes
 D. bladder dysfunction
 E. heart disease
 ****b***

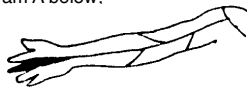
144. Which of the following signs are most suggestive of a bronchogenic carcinoma;
 A. teleangiectasis of the skin and mucosa
 B. clubbing of the fingers
 C. heart murmurs
 D. friction rubs
 ****b***

145. Which of the following is a significant finding of bronchial asthma;
 A. glucosuria
 B. proteinuria
 C. eosinophilia
 D. basophilia
 ****c***

146. A radiographic opacity in the parenchyma of the lung is best termed;
 A. bleb
 B. infiltrate
 C. cavity
 D. bullae
 E. fibrosis
 b
147. A subluxation of which carpal bone is suggested to be involved in carpal tunnel syndrome;
 A. scaphoid
 B. lunate
 C. triquetrum
 D. hamate
 E. pisiform
 b
148. Which of the following is a classic sign of mitral regurgitation;
 A. diastolic click
 B. gallop murmur
 C. S-4 sound
 D. systolic murmur
 E. splitting of the S-2
 d
149. Which of the following imaging methods would be most useful in identifying a typical lumbar canal stenosis;
 A. flexion extension view
 B. CT scan
 C. ultrasound diagnostic imaging
 D. lumbar obliques
 b
150. A 13 year old boy presents with pain in the proximal tibia, approximately 1" distal to the patella. The most likely cause is;
 A. Osgood-Schlatter's
 B. Scheuermann's
 C. Legg-Calves-Perthes
 D. Keinboch's
 a
151. A 28 year old female presents with painful mass of the breast. The mass becomes larger and more painful during the first week of menstruation the probable diagnosis would be;
 A. mastitis
 B. mammary duct dysectasia
 C. fibrocystic disease
 D. adenoma
 c
152. Which of the following is the most common feature of bacterial pneumonia;
 A. fever
 B. bradycardia
 C. hypotension
 D. hypothyroidism
 a
153. A patient walks in an effort to get away from pain will manifest what type of gait;
 A. steppage
 B. spastic
 C. antalgic
 D. slappage
 c
154. Normal breath sounds heard at the periphery of the lungs will typically be;
 A. louder and longer on inspiration
 B. louder and longer on expiration
 C. inspiration equal to expiration
 D. heard on inspiration only
 a
155. Which of the following is not a sign of congestive heart failure;
 A. orthopnea
 B. dyspnea
 C. bradycardia
 D. dysphoria
 E. nocturia
 c
156. Which would not be a recommended treatment in a patient with congestive heart failure;
 A. increase potassium intake
 B. increased diuretics
 C. decreased sodium intake
 D. increased sodium intake
 d
157. Which of the following arteries would be involved with scalenus anticus syndrome;
 A. subclavian
 B. axillary
 C. brachial
 D. femoral
 a
158. The radiographic manifestations of ankylosing spondylitis initially begins in;
 A. cervico-thoracic area
 B. thoraco-lumbar
 C. lumbar
 D. sacroiliac joints
 d
159. In the case of near sightedness, which diopters would be used to visualize the retina of the eye;
 A. positive
 B. negative
 C. zero
 b
160. Massage as a method of treatment would not be indicated in which of the following;
 A. post traumatic fracture
 B. phlebitis
 C. hypotension
 D. hypothyroidism
 b
161. The "rugger jersey" appearance is most classically associated with which of the following;
 A. hypoparathyroidism
 B. hypothyroidism
 C. Paget's
 D. sickle cell anemia
 E. hyperparathyroidism
 e
162. Fundoscopic examination of the retina of the eye reveals; waxy exudates, microaneurysms of the eye. What would be the most important question to ask on the case history;
 A. occupational history
 B. social history
 C. familial history
 D. present illness
 c
163. A young adult male presents with chest pain of sudden onset which is localized to a specific area of the chest. What would be a probable diagnosis in this case;
 A. pneumothorax
 B. pneumonia
 C. pulmonary embolism
 D. myocardial infarct
 E. infection of the lungs
 a
164. In the recommended course of care of this patient the next procedure would be;
 A. taking a chest x-ray
 B. analysis of blood gases
 C. spirometer
 D. blood culture
 a
165. A 27 year old female with lymphadenopathy and swelling, with involvement of spleen, and liver, lymphatics. The signs are suggestive of;
 A. acute cervical lymphadenitis
 B. Hodgkin's disease
 C. Gaucher's disease
 D. infectious mononucleosis
 d
166. 14 year old girl headaches that show up in the autumn, sometimes three times a day and lasting no more than an hour and a half;
 A. cluster headache
 B. tension headache
 C. migraine
 D. temporal arteritis
 a
167. A female patient presents with headaches that start at the occipital lobes and radiates towards the anterior portion of the skull. It has a characteristic vise-like appearance to them. What would be the initial diagnosis;
 A. common migraine headache
 B. muscle tension headache
 C. temporal arteritis
 D. histamine headache
 b
168. She also notes there are visual disturbances, and the episodes are somewhat incapacitating. Based upon the follow-up symptoms, which is the most likely type of headache that she presents;
 A. common migraine headache
 B. muscle tension headache
 C. temporal arteritis
 D. histamine headache
 a
169. Sternoclavicular dislocations most commonly presents which of the following displacements;
 A. superior ;medial
 B. inferior; medial
 C. superior ;lateral
 D. inferior ;lateral
 a
170. A patient presents with inflammation of the supraclavicular nodes. What is most likely to be the primary area for this condition;
 A. upper abdomen
 B. breasts
 C. nasopharynx
 D. oropharynx
 E. left arm
 a
171. Which of the following modalities does not involve a chemical effect;
 A. UV light
 B. ultrasound
 C. diathermy
 D. galvanic
 c
172. A doctor notices a patient having difficulty in breathing and there is distention of the jugular vein, along with activity of the SCM, scalene muscles, and abdominal muscles during breathing. Breath rate is about 8 per minute what is the most likely diagnosis;
 A. pulmonary edema
 B. pneumothorax
 C. pulmonary embolism
 D. pulmonary emphysema
 d
173. In a patient with adhesive capsulitis, what would be the cause of the restricted range of motion;
 A. muscle spasm
 B. articular adhesions
 C. tissue contracture
 D. degenerative arthritis
 b
174. A patient presents with pain, and swelling in the metacarpal-phalangeal joint of the great toe, and calcific deposits in the elbow. History reveals the patient was an alcoholic. Which of the following dietary recommendation should be made;
 A. low protein diet
 B. high protein diet
 C. high carbohydrate diet
 D. low fat diet
 a
175. Which of the following is the least likely involved ligament of the knee;
 A. anterior cruciate
 B. posterior cruciate
 C. medial collateral
 D. lateral collateral
 d
176. A male presents with pain in the knees that is manifested when riding in an automobile, or sitting in a movie theater;
 A. Osgood-Schlatters
 B. rheumatoid arthritis
 C. pes anserine bursae
 D. chondromalacia patella
 d
177. A woman presents difficulty with carrying a heavy purse. Her arm hangs limp and there is heaviness of the arm. Which question in the case history would be relevant in this case;
 A. is there a history of diabetes?
 B. was there a previous fracture
 a
178. In a fracture of the clavicle of a duration of 5 weeks, which of the following would be the most probable sign of healing;
 A. callous formation
 B. fuzziness of the fracture line
 C. remodeling of bone
 D. hematoma
 a
179. Tenderness at the level of T-12, with pain along the iliac crest which of the following areas of possible involvement;
 A. liver
 B. gall bladder
 C. stomach
 D. appendix
 E. kidney
 e

180. The long term deformity that occurs in Scheuermann's disease would result from;
- separation from the disc
 - the epiphysis is the growth center of the vertebra
 - the vertebral endplates serve as the separation between the disc nucleus pulposus and cancellous bone
 - fusion of the ring with the body
- ***d***

181. Identify the innervation to the area indicated in Diagram A below:



- C-5
 - C-6
 - C-7
 - C-8
 - T-1
- ***c***

182. What spinal segments would be involved with the sensory area in diagram B;



- C3-C4
 - C4-C5
 - C5-C6
 - C6-C7
 - C7-T1
- ***e***

183. The doctor in Diagram C is testing which muscle;



- latissimus dorsi
 - posterior deltoid
 - pectoralis major
 - pectoralis minor
- ***b***

184. Identify the condition demonstrated in Diagram D;



- osteoarthritis
 - Volkman's contracture
 - Dupuytren's contracture
 - rheumatoid arthritis
- ***d***

185. Identify the clinical condition in Diagram E:

- tropism
 - spinal stenosis
 - spina bifida S1
 - disc degeneration
 - knife clasp
- ***e***

186. The patient in Diagram F most likely presents what is the most common dislocation;

- acromioclavicular dislocation
- glenohumeral anterior-inferior dislocation
- supraspinous tendinitis

a

187. A patient presents with pain in the 5th intercostal space and red spots in the same area. Which of the following physiotherapy courses would be recommended;

- high intensity, one time a day for five days
- low intensity, five times daily for seven days

a

188. In a case of cirrhosis of the liver where there is distention of the veins and abdominal ascites, would accompany this clinical picture;

- internal hemorrhoids
- hepatic scratch test

a

189. A soccer player who injured his ankle presents with swelling. Which is the next logical step in terms of safety management;

- x-ray the ankle

a

190. 46 year old carpenter who recently suffered a fall
- traumatic compression fracture to the anterior body of L3

191. Which of the following views would best identify a Pancoast tumor;

- a-p cervical
- apical lordotic
- a-p thoracic
- swimmer's

b

192. Which view is not taken to visualize the nasal sinuses;

- Water's
- Caldwell's
- lateral
- submentovertical
- Towne's

e

193. Which of the following is not a clinical sign of multiple sclerosis;

- scanning speech
- intention tremor
- chorea
- optic muscle atrophy

c

194. In a case of a 65 year old male with weakened abdominal muscles, which of the following recommendations would be used if you wanted to strengthen the abdominal muscles without strengthening psoas muscle;

- straight leg sit up
- bent knee sit up
- straight leg raisers
- supine elbow knee sit-ups

d

195. A 14 year old girl demonstrates a scoliosis that disappears or decreases with Adams test and when she sits down what is the most likely cause;

- unequal leg length
- hemivertebra
- idiopathic scoliosis

a

56. A patient presents with sciatic neuralgia, pain in the gluteal region. When the patient walks he presents with an inverted toe-in appearance of the foot. Which of the following is the most likely cause;

- sartorius strain
- psoas strain
- piriformis disorder

c

196. A patient presents with symptomatology you are treating the patient for TMJ problem. The patient improves, but the adjustment does not hold. Which is the most logical step;

- refer to an orthopedist
- refer to a dentist who specialized in TMJ problems
- refer to a neurologist
- continue treatment

b

197. Hemangioma presents which of the following classic radiographic findings;

- fish vertebra
- expansion
- cortical thickening
- vertical striations

d

198. Which of the following conditions or signs is not a type of secondary osteoporosis;

- increased corticosteroids
- increased T4
- osteomalacia
- Bence-Jones proteinuria
- elevated HCG

e

199. In a urine dip stick test which of the following would not be able to be identified;

- glucose
- Bence-Jones proteinuria
- protein
- bilirubin

b

200. The first muscle atrophy in a case of knee injury;

- vastus medialis
- vastus intermedius
- vastus lateralis
- rectus femoris

a

201. A patient presents with all kinds of hip problems, all sciatic tests are negative, no lumbar problem, and symptoms increases with activity. What is the most likely cause;

- L4 disc herniation
- rectus femoris strain
- femoral ischemia

c

202. A 65 year old leg pain that increases when walking, diminishes with rest for a while, then increasing again;

- vascular insufficiency
- spinal stenosis
- disc protrusion

a

203. T1 vertebra body has rotated to the right, spinous to the left, what would be the proper contact point for the patient when using a modified pisiform contact when contacting the right transverse, What would the patient set up;

- patient is prone and contact is the left pisiform
- patient is prone and contact is the right pisiform

a

204. A patient presents pain in the shoulder and back along the lower portion of the cervical spine and the medial border of the scapula, history from rowing over the weekend which of the following is the most likely area;

- levator C4
- rhomboids C5
- scalenes C3
- SCM C1

b

205. What is the contact point for a straight lateral axis;

- lamina
- vertebral body
- anterior arch
- posterior arch

a

206. Axis on an electrocardiogram would indicate which of the following;

- right and left ventricular hypertrophy
- ventricular fibrillation
- cardiac infarct
- angina pectoris

a

207. The sacral base on the right has gone anterior what is the most logical place to contact with the patient in the prone position;

- right sacral base
- left sacral base
- left sacral apex
- left ischium

c

208. With extension of atlas between atlas and occiput, what would you find;

- the mastoid approximates the ramus of the mandible
- the mastoid approximates the transverse process
- the transverse approximates the mastoid
- the transverse approximates the mandible

d

209. A young girl presents with a short leg. From the ASIS down to the malleolus the measurements are identical, however which of the following is going to be the cause;

- congenital short femur
- pelvis obliquity
- hip dislocation

b

210. Which would be a sequel to a case of chronic tensor fascia lata contracture;

- trochanteric bursitis
- meralgia paresthetica

a

211. 30 year old male is playing basketball for about 60 minutes and was resting when a ball was thrown towards him. He turned rapidly and felt a snapping noise in his leg. The pain manifests itself deep in the calf. Which of the following is likely to be the involved area;

- tibialis posterior
- popliteus plantaris
- Achilles tendon
- tibialis anterior

b

212. A patient presents with pain and lateralization of Weber's test towards the right, Rinne's test demonstrates increased bone conduction as compared to air conduction. Which of the following would be true;
 A. auditory neuroma
 B. tympanosclerosis
 C. Meniere's syndrome
 b
213. Which of the following would not be a pertinent consideration in this case
 A. TMJ dysfunction
 B. parotid gland problem
 C. pressure on the tragus
 D. malposition of the teeth
 d
214. Inspection of the ear will demonstrate shortening of the malleus, no evidence of fluid level, the cone of light is prominent and distorted, and the tympanic membrane has a gray lusterless appearance;
 A. serous otitis media
 B. purulent otitis media
 C. bullous myringitis
 D. Eustachian blockage
 d
215. A middle aged male presents with history of chronic constipation, rebound tenderness, and proctoscopic examination was negative;
 A. Crohn's
 B. diverticulitis
 C. irritable bowel syndrome
 D. ulcerative colitis
 a
216. A 13 year old girl with a history of constipation presents with diarrhea, stringy and stool studies are negative, sigmoidoscopy is negative;
 A. Crohn's
 B. diverticulitis
 C. irritable bowel syndrome
 D. ulcerative colitis
 c
217. A patient presents with swollen testicles. There is a mass in the spermatic cord, and in the testicles. Which of the following procedures would be the next logical procedure;
 A. transillumination of the testicle
 B. palpation of the inguinal canal
 a
218. Which mineral is responsible for enhancing of the immune system;
 A. cobalt
 B. magnesium
 C. calcium
 D. potassium
 E. zinc
 e
219. In a case of preventing renal calculi what mineral would be best;
 A. sodium
 B. potassium
 C. calcium
 D. phosphorus
 E. magnesium
 e
220. Which element is important in sexual maturation;
 A. cobalt
 B. magnesium
 C. calcium
 D. potassium
 E. zinc
 e
221. Which line would be used in a case of diagnosing a case of platybasia;
 A. Kohler's
 B. Boehler's
 C. McNabb's
 D. Chamberlain's
 d
222. Which of the following lines are used to identify a femur-acetabular misalignment or dislocation;
 A. Skinner's
 B. femoral angle
 C. Shenton's
 D. coxo-femoral line
 c
223. Which line or measurement would be used to measure lumbar canal stenosis;
 A. McNabb's
 B. Eisenstein's method
 C. George's
 D. Hadley's
 b
224. The nerve root that innervates the extensor hallucis longus, the extensor digitorum longus exits the spinal canal at the level of;
 A. L3-4
 B. L4-5
 C. L5-S1
 D. S1-2
 c
225. Which is an important lab test in a patient with rheumatic fever;
 A. rheumatoid factor
 B. ASO-titre
 C. HLA-B-27
 D. ESR
 b
226. Which of the following peripheral arteries should not be compressed bilaterally;
 A. subclavian
 B. carotid arteries
 C. brachial
 D. femoral
 b
227. Stool contains fat particles
 A. pancreatic insufficiency
228. A patient with a third degree scoliosis. What would be recommended;
 A. observation
 B. exercise
 C. bracing if the scoliosis is progressive
 D. surgery
 c
229. A previously normotensive 26 year old patient presents with headaches and a blood pressure of 170/110. These symptoms would indicate?
 a. barbiturate poisoning
 b. bleeding ulcer
 c. subarachnoid hemorrhage
 d. hyperventilation
 c
230. A 30 year old female presents with fever and recurrent polyarthritis. Which of the following is the least likely cause of her condition?
 a. systemic lupus erythematosus
 b. rheumatoid arthritis
 c. pleurisy
 d. pericarditis
 e. cervical discopathy
 e
231. Which of the following shapes of the lumbar neural canal predisposes a patient to neurogenic claudication?
 a. triangular
 b. oval
 c. round
 d. trefoil
 d
232. What is indicated when a palpable thrill is heard over the anterior chest wall?
 a. myocardial infarct
 b. angina pectoris
 c. congestive heart failure
 d. mitral stenosis
 e. cor pulmonale
 d
233. Fundoscopic examination is appropriate in which of the following conditions?
 a. myxedema
 b. pulmonary disease
 c. increased intracranial pressure
 d. hyperventilation
 c
234. In the fully flexed position (approximately 85°), what structure gives the most stability and therefore is most likely to be stressed?
 a. gluteals
 b. lumbar ligaments
 c. erector spinae muscles
 d. psoas
 b
235. The most common pathology or disease of spondylolisthesis is?
 a. D.J.D.
 b. facet degeneration
 c. stress fracture of pars
 c
236. Which of the following signs is consistent with myxedema?
 a. profuse perspiration
 b. hypothermia
 c. hyperventilation
 d. flapping tremor
 b
237. A 23 year old female comes in with a painful swollen red mass in her breast.
 a. mammary duct ectasia
 b. mastitis
 c. fibrocystic disease
 d. adenocarcinoma
 b
238. Where is coccidiomycosis most likely to be found?
 a. Florida
 b. Ohio
 c. Arizona
 d. Hawaii
 c
239. To palpate the scaphoid, you should _____ the patient's wrist.
 a. ulnar deviate
 b. radial deviate
 c. flex
 d. extend
 a
240. An increase in WBCs 2x's when there is no infection present may be due to?
 a. alcohol
 b. starvation
 c. exercise
 d. prolonged sleep
 e. smoking
 c
241. What is the first sign of adenocarcinoma of the prostate?
 a. increased serum alkaline phosphatase
 b. increased serum acid phosphatase
 c. decreased serum amylase
 d. diffuse, tender, and enlarged prostate
 e. non-tender, solitary nodule of prostate
 e
242. An overuse of which vitamin may give a false positive for glucose in Clinistix urinalysis?
 a. A
 b. niacin
 c. C
 d. D
 c
243. What substance when added to the diet will cause stools to appear black?
 a. vitamin A
 b. vitamin E
 c. fiber
 d. iron salts
 d
244. What vitamin or supplement is given for intermittent claudication?
 a. B complex
 b. magnesium
 c. zinc
 d. vitamin A
 e. vitamin E
 b
245. Following a case of cervical trauma where stability is in question, which of the following would be performed last?
 i. case history
 j. orthopedic test
 k. x-ray
 l. vital signs
 b
246. Consuming large amounts of water in summer months may cause excessive depletion upon sweating of which of the following?
 a. vitamin A & D
 b. vitamin B & C
 c. vitamin E & K
 d. calcium and phosphorus
 d
247. Most clearly visualized on the flexion and extension views?
 a. instability
 b. degeneration
 c. range of motion
 d. spondylosis
 a

248. Which of the following positions of the neck and head would be most appropriate when correcting a lateral flexion fixation of the cervical spine with the patient in the supine position?
a. neck slightly extended and rotated away from the side of fixation
b. head neutral, no rotation
c. head slightly extended and rotated 45° away from fixation
d. head slightly extended and rotated 45° toward the side of fixation
c
249. Slow accommodation of the eye is often found in the following condition:
a. syringomyelia
b. tabes dorsalis
c. diabetes
d. multiple sclerosis
b
250. Hilar enlargement is least likely in which of the following instances?
a. vascular dilatation
b. lymph nodes
c. aneurysm
d. neoplasm
e. emphysema
e
251. The appropriate case management in a patient with a direct posterior midline C4 disc prolapse with mild to moderate spasticity in the lower extremity?
a. Chiropractic case and re-evaluate in 2 weeks
b. refer to a neurosurgeon
c. refer to a physiotherapist
d. refer to a psychologist for biofeedback
d
252. Which of the following is elevated in hemolytic disease?
a. CPK
b. SGOT
c. LDH
d. indirect bilirubin
e. potassium
d
253. To differentiate between fibroadenoma and breast carcinoma:
a. palpate for tenderness
b. transluminate the mass
c. palpate for mobility
d. pain and temperature
c
254. A patient has a unilateral exophthalmos. The probable diagnosis?
a. aneurysm
b. hypothyroidism
c. hyperthyroidism
d. alcoholism
e. hyperlipidemia
a
255. A woman wakes up in the middle of the night with numbness and pain in one hand. She shakes her hand for a few seconds and the pain goes away. She is suffering from:
a. carpal tunnel syndrome
b. vascular compression
c. nerve compression
d. thoracic outlet syndrome
e. rheumatoid arthritis
a
256. An auscultatory gap is heard when a patient is suffering from:
a. hypertension
b. extreme fatigue
c. debilitation
d. hypotension
e. obesity
a
257. Which of the following exercises would be most appropriate to relieve low back pain resulting from encroachment of the IVF?
a. extension
b. flexion
c. hamstring stretching
d. adductor strengthening
e. L/D circumduction
b
258. Thumb adduction is innervated by:
a. radial
b. median
c. ulnar
d. axillary
e. musculocutaneous
c
259. When you rotate the head to the right, the left articular process moves:
a. superior and anterior
b. superior and posterior
c. inferior and anterior
d. inferior and posterior
a
260. Which form of physiotherapy produces a redness which goes away after a minute?
a. infrared
b. ultraviolet
c. hydrotherapy
d. short-wave diathermy
a
261. Which of the following fractures does not require rigid splinting (casting)?
a. femur
b. tibia/fibula
c. Colles
d. clavicle
e. humerus
d
262. The mamillary process of L3 is located where?
a. 2" lateral to the spinous above
b. 3/4" lateral to its spinous
c. 1/2" lateral to its spinous
d. 1/3" lateral to its spinous
c
263. When using the modified thumb move to adjust T1 spinous right:
a. patient is prone, contact the right side of the spinous process
b. patient is prone, contact the left side of the spinous process
c. patient is supine contact the right side of the spinous process
d. patient is supine, contact the left side of the spinous process
a
264. What modality may accelerate the growth of a tumor or metastasis of cancer?
a. whirlpool
b. stretching exercises
c. hot fomentation
d. ultrasound
e. Burn's lamp
d
265. A 28 year old female with low back pain in her third day of menstruation. Contraindications?
a. TENS (battery operated)
b. massage
c. S/W diathermy
d. cryotherapy
c
266. The most common complication of cervical traction:
a. jaw pain
b. stroke
c. disc herniation
d. radicular pain
a
267. Which exercise should be avoided with a patient with a spondylolisthesis?
a. supine knee to chest
b. hamstring stretch
c. supine bent knee curl-ups
d. standing pelvic rotation
e. supine spinal extension
e
268. Serial hematology reports on a male patient consistently demonstrates a normocytic anemia with elevated reticulocyte count. Serum chemistry studies reveal indirect hyperbilirubinemia. Which test should be done next?
a. serum ferritin
b. Coombs
c. fecal occult blood
d. serum blood assay
e. bone marrow biopsy
b
269. The presence of immature WBCs in peripheral blood indicates:
a. bone marrow disease
b. acute blood loss
c. parasitic infection
d. soft tissue injury
e. starvation
a
270. A patient presents with a sprain/dislocation of the sternoclavicular joint. The supportive care would be?
a. cock-up splint
b. abduction-external rotation cast
c. figure eight brace
d. triangular bandage sling
c
271. An 82 year old male presents with right hip pain and warmth over the skin. Lab shows an increased alkaline phosphatase. X-ray reveals a density of the pelvic brim and increased trabeculae of the femur. Your diagnosis?
a. metastatic carcinoma
b. osteitis deformans
c. rheumatoid arthritis
d. osteogenic sarcoma
b
272. A 30 year old female presents with bilateral paresthesia and pallor of the hands. Examination reveals acute exacerbation of Raynaud's. Which supportive technique is contraindicated?
a. biofeedback
b. ultrasound
c. Fluidotherapy
d. TENS
e. cryotherapy
e
273. A 1 cm nodule on x-ray in the upper thoracic?
a. hamartoma
b. T.B.
c. silicosis
d. bronchogenic carcinoma
b
274. Which cell will constitute 25-30% of the WBC count in peripheral blood?
a. lymphocytes
b. neutrophils
c. monocytes
d. eosinophils
e. basophils
a
275. A patient presents with shoulder pain on rotation of several weeks duration. Physical exam reveals a rotator cuff strain. Which regimen will prevent loss of range of motion?
a. Bobath's exercises
b. William's exercises
c. Frenkel's exercises
d. Codman's exercises
e. Jacobson's exercises
d
276. Which of the following modalities are contraindicated for cervical radiculopathy with lateral elbow pain?
a. home cervical traction
b. massage
c. cryotherapy
d. ultrasound
a
277. Contrast baths are utilized in a case of?
a. hypertension
b. causalgia
c. extremity sprain
d. migraine headaches
e. tuberculosis of the spine
c
278. Which group of serum tests would be abnormal in metabolic bone disease?
a. CPK, LDH, C-RP
b. creatinine, CPK
c. calcium, phosphorus, acid phosphatase
d. CPK, SGOT, C-RP
e. phosphorus, calcium, alkaline phosphatase
d
279. Which motion is severely limited in congenital hip dysplasia?
a. abduction
b. adduction
c. flexion
d. extension
a
280. Which of the following conditions would not be a chiropractic patient?
a. IVD syndrome
b. facet syndrome
c. canal stenosis
d. lumbo-sacral strain/sprain
c

281. Latent dermal erythema is a side effect of?

- a. ultraviolet
- b. infrared
- c. short wave diathermy
- d. ultrasound

a

282. In a patient presenting with abdominal pain, the order of examination is:

- a. palpate, percuss, auscultate
- b. percuss, palpate, auscultate
- c. palpate, auscultate, percuss
- d. auscultate, percuss palpate

d

283. In a patient with multiple sclerosis, which of the following is least likely to occur?

- a. nystagmus
- b. deep tendon hyporeflexia
- c. Babinski's reflex
- d. spastic paralysis

b

284. Hip abduction from normal standing position is at least:

- a. 45°
- b. 55°
- c. 65°
- d. 75°

a

285. Early radiographic changes in acute hematogenous osteomyelitis include:

- a. periosteal lifting
- b. cortical erosion
- c. medullary evasion
- d. decreased joint space
- e. soft tissue swelling

e

286. A 44 year old male complains of headaches of two months duration, with intermittent paroxysmal pain. The attacks occur in lightening bursts of 20-25 seconds duration. The attacks are incapacitating and salivary production is increased:

- a. TMJ
- b. multiple sclerosis
- c. transient ischemic attacks
- d. cluster headaches
- e. trigeminal neuralgia

g

287. Angina may be differentiated from myocardial infarct by:

- a. a history of pre-cordial pressure
- b. pain from the jaw to the neck
- c. smoking
- d. relief with rest

d

288. A 50 year old male on diuretics and blood pressure tablets complaining of acute disc pain suggests?

- a. osteoarthritis
- b. gout
- c. sacroiliac lesion
- d. I.V.D. syndrome

b

289. Spasmodic torticollis in a 6-12 year old may be due to?

- a. fibroma in the SCM muscle
- b. upper respiratory infection
- c. spinal stenosis
- d. ligament abnormality
- e. distortion of spinal segments

b

290. What percent decrease of bone is necessary to achieve an observable difference on x-ray?

- a. 10%
- b. 20%
- c. 30%
- d. 50%

c

291. An A-P radiograph of the knee reveals calcification of the medial collateral ligament. The most likely cause of this appearance would be?

- a. Baker's cyst
- b. tenosynovitis of the knee
- c. Pellegrini-Stieda
- d. osteochondromatosis
- e. osteochondritis dessicans

c

292. What would your management of a stable rib fracture where a punctured lung is not a possibility?

- a. refer to an orthopedist
- b. tape ribs and recommend rest
- c. provide the patient with a rib belt

b

293. How would you adjust an anterior coccyx using an external coccygeal move?

- a. base of the sacrum
- b. apex of the sacrum
- c. base of the coccyx
- d. apex of the coccyx

c

294. A patient begins his morning with a walk. After 100 yards claudication began. He chose to ignore the pain and continued walking. After the second hundred yards the pain ceased. The reason for the claudication would likely be:

- a. neurogenic
- b. vascular
- c. vasodilation
- d. oxygen debt metabolites

d

295. Which of the following exercises would be recommended in a patient with low back pain due to facet syndrome?

- a. Codman's
- b. Williams's
- c. Delorme
- d. Jacobson's

b

296. A patient presents with spinal and flank pain, and mild hematuria. The most likely cause of this condition would be?

- a. acute cystitis
- b. acute cholecystitis
- c. acute pyelonephritis
- d. nephrosclerosis
- e. ureteral stone

c

297. Until proven otherwise, acute low back pain that is not relieved by rest must be assumed to be?

- a. infectious
- b. vascular
- c. canal stenosis
- d. malignancy

d

298. To correct a cervical lateral flexion fixation, the patient's head will be:

- a. neutral with lateral flexion
- b. rotated 45° to the side of fixation
- c. rotated 45° away from the side of fixation
- d. rotated 90° away from the side of fixation

c

299. A patient presents with acute low back pain and loss of bowel control. The correct course of action should be?

- a. heat and exercise
- b. chiropractic adjustments with re-evaluaton in two weeks
- c. refer to a neurosurgeon
- d. chiropractic adjustments with re-evaluation in six months

c

300. A patient presents with weakness of the finger flexors, sensory disturbances of the medial forearm and normal reflexes, Which cord level is involved?

- a. C5
- b. C6
- c. C7
- d. C8
- e. T1

d

301. Patient presents with left tongue paralysis:

- a. lingual carcinoma
- b. Horner's syndrome
- c. aphthous stomatitis
- d. CN X lesion
- e. CN XII lesion

e

302. A female patient presents complaining of hearing music, voices, clanking sounds indicates possible:

- a. acoustic neuroma
- b. Bell's palsy
- c. Meniere's
- d. patent Eustachian tubes
- e. psychiatric case

e

303. PA and lateral chest radiographs re-veal consolidation which extends from the hilar region to the mid-lung field. This is suggestive of?

- a. tuberculosis
- b. pulmonary edema
- c. pneumothorax
- d. lobar pneumonia
- e. pericarditis

b

304. The right innominate has gone posterior and inferior. The segment-al contact point that would be used to correct this misalignment would be?

- a. right PSIS
- b. right sacral base
- c. left sacral base
- d. left PSIS

a

305. A 25 year old female presents with hands that go cold and blue in the cold. The hands turn red and throb after one hour:

- a. Buerger's disease
- b. Raynaud's
- c. diabetes mellitus
- d. acroparesthesia
- e. acrocyanosis

b

306. What condition may be associated with a case of intermittent claudication?

- a. diabetes
- b. degenerative joint disease
- c. rheumatoid arthritis
- d. tabes dorsalis

a

307. Dietary recommendations for a patient with elevated serum uric acid and calcium urate crystals in the elbow would include restriction of?

- a. carbohydrates
- b. salt
- c. potassium
- d. purines

d

308. In a female with a positive Phalen's and Tinel's tests, which test or study would be indicated next?

- a. Allen's
- b. nerve conduction study
- c. Adson's
- d. electromyography

b

309. What would cause a localized pain in the lateral aspect of the shoulder on forced adduction of the arm?

- a. deltoid bursitis
- b. acromioclavicular sprain
- c. sterno-clavicular sprain
- d. gleno-humeral dislocation

a

310. In the cervicals when you laterally flex to one side the spinous moves _____; similar to the _____ spine.

- a. concavity; lumbars
- b. convexity; lumbars
- c. concavity; thoracics
- d. convexity; thoracics

d

311. A 63 year old woman has difficulty knitting and picking up coins. Her lab results show a normochromic anemia with an elevated MCH. What additional survey would be indicated?

- a. iron assay
- b. serum folic acid
- c. vitamin B-12

c

312. Radiographs of the humerus of a 4 year old child reveals complete periosteal lifting, and a dense, wavy periosteal new bone formation. What would be your initial impression?

- a. scurvy
- b. congenital syphilis
- c. osteogenesis imperfecta
- d. battered child syndrome

d

313. A female presents with a lump in her breast, and pain which increases with her menstrual period. The most likely diagnosis would be?

- a. carcinoma
- b. mammary duct ectasia
- c. fibrocystic disease
- d. adenoma
- e. mastitis

c

314. Examination of a 24 year old female reveals an enlarged liver and spleen, and lab findings indicate atypical lymphocytes. What lab procedure should be requested?
- CBC
 - throat culture
 - ASO titre
 - monospot
- ***d***

315. The patient lies with their right side down. The doctor contacts the left mamillary and delivers a P-A thrust with a counterclockwise torque. Determine the malposition:
- body has rotated posterior and superior on the left
 - body has rotated posterior and inferior on the left
 - body has rotated posterior and superior on the right
 - body has rotated posterior and inferior on the right
- ***a***

316. A 23 year old woman presents with back pain. She states that about ten days ago she had been horse-back riding when she fell. Pain is increased with right lateral bending. The pain radiates to the area indicated in DIAGRAM A. From which of the following areas is the pain NOT likely to be referred:



- thoracic spine
 - ovaries
 - sigmoid colon
 - kidneys
- ***c***

317. In the above patient which diagnostic test should you perform first?
- ultrasound
 - x-rays
 - GI series
 - CBC/UA
- ***b***

318. A child presents with a fever and auscultation reveals an apical systolic murmur. Which would be the most appropriate lab test to run?
- ESR
 - serum folic acid
 - ASO titre
 - RA latex
- ***c***

319. A 60 year old male presents with low back and hip pain. Radiographs and lab tests are all negative. What test would you run next?
- MRI
 - bone scan
 - CAT scan
 - lumbar flexion/extension
- ***b***

320. Which structure has no vascular supply in the adult?
- intervertebral disc
 - vertebral body
 - pedicle
 - spinous process
- ***a***

321. Sacralization involves:
- non-fusion of the first sacral segment to the second
 - non-segmentation of the first sacral segment from the second sacral segment
 - non-fusion of L5 to the first sacral segment
 - non-segmentation of L5 from the first sacral segment
- ***d***

322. The first radiographic finding of multiple myeloma in an 83 year old female would be:
- periosteal lifting
 - medullary involvement
 - reactive sclerosis
 - cortical erosion
- ***b***

323. The optic disc would be considered abnormal if:
- 4 veins and 4 arteries leave all quadrants
 - macula is two disc diameters away
 - the disc is creamy-orange
 - reflection of all vessels
- ***a***

324. Otoloscopic exam reveals a retracted tympanic membrane. How would you differentiate for a blocked Eustachian tube?
- have the patient hold their nose and swallow

325. A 55 year old retired marine sergeant presents with ankle edema, chest pain, and bruises easily. He has a history of being a smoker. What additional questions may be important?
- familial history of smoking
 - familial history of bleeding
- ***c***

326. Klippel-Feil syndrome involves?
- blockage of 2 or more vertebrae (cervical?)

327. What color does the mucous membrane become in carbon monoxide poisoning?
- cherry red

328. With which of the following musculoskeletal diseases do you expect to see an increase in the eosinophil count?
- myasthenia gravis
 - osteoporosis
 - polymyositis
 - muscular dystrophy
- ***c***

329. A patient presents with bilateral edema, paroxysmal nocturnal dyspnea, orthopnea and diaphoresis. These symptoms would be most likely due to;
- thrombophlebitis
 - bronchiectasis
 - carcinoid syndrome
 - congestive heart failure
- ***d***

330. The ability to recognize an object by the sense of touch only is called;
- 2 point discrimination
 - topognosis
 - graphesthesia
 - stereognosis
- ***d***

331. A 30 year old male patient presents with low back pain and pain in his left leg. Patellar reflex is normal but the dorsum of his left foot feels numb and the extensors of the foot are found to be weak. Lasègue's and well-leg raiser are positive. What is the probable condition?
- disc L4-L5
 - disc L5-S1
 - peroneal nerve atrophy
 - capsulitis at L5
- ***a***

332. A 35 year old patient presents with right leg and low back pain. His antalgic posture is to the right, and Braggard's and well-leg raiser are positive. What is your diagnosis?
- postero-lateral protrusion
 - postero-medial protrusion
 - facet syndrome
 - disc prolapse
- ***b***

333. A 25 year old obese woman presents with loss of the lateral one third of her eyebrows, weight gain and intolerance to cold. What is her condition?
- hypothyroidism
 - hypoadrenalism
 - pregnancy
 - Cushing's
- ***a***

334. Superficial reflexes are normal but deep tendon reflexes are +4. What is the most likely cause?
- upper motor neuron lesion
 - lower motor neuron lesion
 - flaccid paralysis
 - spastic paralysis
- ***a***

335. What is the most common condition of the shoulder?
- sub-deltoid bursitis
 - bicipital tendinitis
 - adhesive capsulitis
 - rotator cuff tear
- ***b***

336. Which of the following does not produce redness of the overlying skin?
- osteoarthritis
 - rheumatoid arthritis
 - gout
 - pyogenic arthritis
- ***a***

337. A young girl presents with a fever and a 2-6mm macular rash that blanches when pressure is applied. The rash started on the outer extremities and progressed to the anterior trunk. Which of the following histories would help in the diagnosis of this condition?
- sexually active with many partners
 - allergy to medications particularly to antibiotics
 - recent trip to the Rocky Mountains
 - familial history of adrenal disease
- ***c***

338. A 40 year old woman presents with fine tremors of the fingers with extension, heat intolerance, nervousness, and fatigue, multiple bowel movements each day and irregular periods for the last several months. After normal x-rays and UA, what else would you do?
- orthopedic and neuromuscular exam
 - palpate the thyroid
 - abdominal exam
- ***a***

339. Which vitamin aids the liver in thrombinogen production?
- A
 - D
 - E
 - K
- ***d***

340. What muscle group would you want to strengthen to prevent hip injury in osteoporosis?
- flexors
 - abductors
 - adductors
 - rotators
- ***b***

341. A 58 year old male presents with 5-10 RBCs in the urinalysis.
- not important
 - repeat the urinalysis in 6-8 weeks
 - give cranberry juice
 - find out the cause of the hematuria immediately
- ***d***

342. Patient presents with constant foot pain on standing and walking. Based on this information, what would you do next?
- refer out to a podiatrist to exercise the tendon
 - adjust and put bilateral heel lifts and cushiony doughnut under the painful heel.
 - adjust and give nutrients
- ***b***

343. A patient demonstrates a retropharyngeal space of 29mm with a history of a recent hyperflex-ion-hyperextension injury. What would you suspect?
- neoplasm
 - disc herniation
 - hematoma
 - infection
- ***c***

344. Which patient condition would require the doctor to do a complete physical exam with radiographs and lab?
- flu with a moderate temperature of three days duration
 - acute abdominal cramps of 4 days duration
 - low back pain which was unsuccessfully treated by 2 other doctors
 - low pack pain or discomfort after a normal pregnancy and delivery
- ***c***

345. A large disc protrusion/ herniation protrudes from what level to effect 2 cauda equina segments.
- L2
 - L3
 - L4
 - L5
- ***c***

346. Bruising the common peroneal nerve would result in;
- sciatica
 - foot drop
 - enuresis
 - tarsal tunnel syndrome
- ***b***

347. A sacular conduit calcification anterior to L4 body is _____ aneurysm.
- internal iliac artery
 - femoral artery
 - abdominal aorta
 - splenic artery
- ***c***

348. A 25 year old male presents with acute right sided low back pain. He states that it began when he bent over to pick up a heavy object. The patient sits on his left hip away from the pain. Orthopedic findings; (+) Gaenslen's on the right, (+) straight leg raiser on the right, deep tendon reflexes are +2 and symmetrical. 1" short leg. The gait is normal, but movement is guarded in bending and twisting. What is your diagnosis?

- a. coxofemoral dislocation
- b. sacroiliac sprain
- c. lumbosacral disc
- d. lumbar spondylosis

b

349. What type of person is most likely to have a slipped femoral epiphysis?

- a. an infant
- b. an obese hypo genital adolescent
- c. a young male athlete
- d. an old osteoporotic female

b

350. What nerve is damaged when a person has wrist drop?

- a. ulnar
- b. radial
- c. median
- d. axillary

b

351. A mother brings in her 6 year old male child. She states that he fell off a swing five days ago and scraped his knee. His knee is a little tender but the injury has scabbed over. The child has a fever of 103° and is listless. What is the next step that you would do?

- a. x-ray the lumbar spine and the knee
- b. blood chemistry and urinalysis
- c. call his pediatrician and inform him of the child's condition

c

352. What part of the x-ray machine converts alternating current to direct current?

- a. high volt converter
- b. low volt converter
- c. transformer
- d. rectifier

d

353. A 20 year old female patient with low back pain states that she is not pregnant, but is not within the ten day rule. What would you do?

- a. x-ray and treat her
- b. treat her without x-rays
- c. refer her out
- d. wait until she is within the ten day rule

d

354. What test would you use to confirm thoracic outlet syndrome?

- a. Jackson's test
- b. compression test
- c. Bakody's test
- d. Spurling's test

c

355. What modality do you use on a patient who is 7 months pregnant with low back pain?

- a. ultrasound
- b. interferential
- c. short wave diathermy
- d. hydrocollator packs

d

356. Which of the following would not be cause of canal stenosis?

- a. anterior buckling of the ligamentum flava
- b. prolapse disc
- c. anterior longitudinal ligament
- d. posterior longitudinal ligament

c

357. The patient is a 45 year old obese female with a blood pressure of 180/110. How would you classify her blood pressure?

- a. normal
- b. high
- c. severe
- d. critical

b

358. A patient stands up from a chair with a positive Neri's bowing sign. What is the problem?

- a. chondromalacia patella
- c. anterior cruciate ligament
- c. medial collateral ligament
- d. lateral collateral ligament

c

359. The best projection to visualize the fovea capitis would be;

- a. full spine
- b. frog leg
- c. lateral lumbar
- d. A-P pelvic

d

360. Which of the following is not characteris-tic of a soft tissue injury or bone trauma?

- a. fluid leaks from traumatized blood vessels
- b. normal repair processes seal off torn blood vessels within minutes depending upon the severity of injury
- c. small blood vessels take longer to clot than larger vessels
- d. resorption of extrasoluted fluid and dissolution of hematoma are a necessary process of healing

c

361. A lab work up would be necessary for a patient presenting with which case history;

- a. 2 day history of gastroenteritis
- b. 3 day history of flu-like symptoms
- c. 5 day history of a headache
- d. 2 week history of a sore throat

d

362. A shiny swollen appearance in the front of the lower leg, tender tight muscles along the shin with weak dorsiflexors of the foot would indicate?

- a. femoral neuritis
- b. anterior compartment syndrome
- c. peroneal tendinitis
- d. tarsal tunnel syndrome

b

363. A 28 year old female is complaining of numb-ness down her arm, pain between her shoulder blade and at the base of her occiput. She said that it started after an aerobics class six months ago. Six weeks ago she started exper-ien-cing numbness at night that awakens her and lasts for 15 minutes two to three times a week. Evaluation reveals a T3-T4 spasm and tenderness. All other exams were negative. What should you do next?

- a. refer to an orthopedic surgeon
- b. adjust the thoracic spine
- c. adjust the occiput
- d. apply moist heat and traction

b

364. Why would you discontinue chiropractic adjustments?

- a. the patient experiences only temporary relief
- b. not enough force used in the initial adjustment
- c. the patient experiences transient discomfort from the adjustment
- d. the pain moves distally along the peripheral nerve

d

365. A female patient states that she recently noticed eye discomfort, and that the eyes appeared to be larger. What other findings would be consistent with the patient's complaints?

- a. urgency, dysuria, lower abdominal tenderness
- b. chills, fever, nausea
- c. lethargy, stomach pain, tarry stools
- d. nervousness, tiredness, weight loss

d

366. How long must ice be applied on a muscle to achieve a 1°C decrease to a depth of .5cm?

- a. 5 minutes
- b. 10 minutes
- c. 20 minutes
- d. 30 minutes

a

367. The test that would be performed for a patient with infectious mononucleosis?

- a. HCG
- b. ASO titer
- c. fluorescent Treponema
- d. heterophil agglutination

d

368. Urine which forms a yellow foam when shaken suggests increased levels of;

- a. protein
- b. bilirubin
- c. urobilinogen
- d. blood

b

369. A 42 year old male presents a swollen, blue-red knee of 24 hours duration. He has a history of urethritis (which has not bothered him for the last month). He has had no sex for the last two months. The patient is 5'7" and 235 pounds. He mentions that his older brother and father have occasionally had similar episodes of swollen joints. He also mentions that last he had a steak and a bottle of red wine for dinner. His UA; 3WBC/HPF, Blood; total WBC 11,000, 84% PMNS, 24% lymphocytes. What is the most revealing part of the case history?

- a. physical exam
- b. familial history
- c. laboratory findings
- d. vital signs

b

370. Which of the following conditions would be the least likely diagnosis?

- a. suppurative arthritis
- b. hypertrophic osteoarthritis
- c. gout
- d. rheumatoid arthritis

b

371. Of the information that is given, which of the following would be the most important problem or risk?

- a. gonorrhoea
- b. obesity
- c. hypertension
- d. leukemia

c

372. What is the maximum radiation dosage allowed per month for a patient involved with radiation?

- a. 10 mR
- b. 400 mR
- c. 1250 mR
- d. 1500 mR

a

373. Which muscles would be used when using the shoulder to lift heavy objects (as in throwing a shot-put)?

- a. supraspinatus, latissimus dorsi, pectoralis, and biceps
- b. supraspinatus, latissimus dorsi, serratus anterior, and triceps
- c. trapezius, rhomboids,
- d. anterior deltoid, latissimus dorsi, serratus anterior, pectoralis, triceps, biceps

d

374. The benefits of which modality include micro-massage, dispersing edema, and the breaking up of adhesions?

- a. ultrasound
- b. short wave diathermy
- c. ice
- d. galvanic

a

375. Which of the following conditions does the pain reach its maxi-mum intensity almost immediately?

- a. migraine
- b. gastric ulcer
- c. dissecting aneurysm
- d. duodenal ulcer

c

376. In iontophoresis, which chemical would be used for myofasciitis, or bursitis of the shoulder?

- a. zinc
- b. copper
- c. heparin
- d. Mg

d

377. Dupuytren's contracture affects which area?

- a. thumb and index finger
- b. ring and little finger
- c. hamstrings
- d. arm and hand flexors

b

378. Increased urination which is relieved when lying down is suggestive of?

- a. prostate
- b. diabetes insipidus
- c. diabetes mellitus
- d. bladder stone

d

379. A three year old child presents with cough and fever. Which of the following mouth lesions are signs of rubeola?

- a. strawberry tongue
- b. Koplik spots
- c. Bitot's spots
- d. Forsscheimer spots

b

380. Which of the following systems are the primary cause of TRUE vertigo?

- a. cerebellar
- b. cerebrum
- c. vestibular
- d. posterior columns

c

381. Curschmann's spirals are suggestive of which of the following conditions?

- a. bronchial pneumonia
- b. acute bronchitis
- c. bronchiectasis
- d. bronchial asthma

d

382. The area or system which is most likely to be affected in a patient with a proprioceptive problem?

- a. cerebellar
- b. cerebrum
- c. vestibular
- d. posterior columns

d

383. The alar and atlanto-axial ligaments allow how much rotation?

- a. 5-10°
- b. 10-15°
- c. 15-20°
- d. 20-25°

b

384. The patient stands by a table and shifts their weight to one leg. Which of the following muscle groups keeps the pelvis horizontal;

- a. gluteus medius
- b. iliotibial band
- c. gracilis
- d. abdominals

a

385. Blood with the cellular components and fibrinogen removed is known as;

- a. hematocrit
- b. hemoglobin
- c. serum
- d. plasma

c

386. A 25 year old male presents with fatigue and green urine. Laboratory studies reveals a normal CBC, and the SMAC reveals an in-creased total bilirubin direct bilirubin, SGPT and SGOT. A heterophil test should be run to rule out;

- a. cancer of the head of the pancreas
- b. infectious mononucleosis
- c. viral hepatitis
- d. cholecystitis

b

387. A patient presents with a history of waking up in the middle of the night with a dry cough which is relieved by sitting up. The patient notes that he has several episodes every 2-3 months. The episodes last approximately 10 days.

- a. chronic bronchitis
- b. bronchial pneumonia
- c. asthma
- d. emphysema

a

388. A female patient presents with exophthalmos, hyperosmia, and nervous tremors. The laboratory studies are all within normal limits;

- a. recommend iodine supplements
- b. repeat the laboratory studies in 60-90 days
- c. refer out
- d. palpate the thyroid

b

389. On an AP lumbo-pelvic radiograph, posterior rotation of the innominate will make the ilium appear;

- a. larger longitudinal measurement
- b. shorter longitudinal measurement
- c. narrower obturator foramen
- d. narrower lateral measurement

a

390. Loss of lateral aspect of the eyebrows may be suggestive of;

- a. Graves disease
- b. myxedema
- c. Cushing's disease
- d. Addison's disease

b

391. Therapeutic exercises for scoliosis;

- a. can't isolate the affected muscles
- b. can't get the patient to do them
- c. may be used before epiphyseal closure
- d. are ineffective without braces

d

392. The recommended nutrient supplements for a patient with degenerative joint disease would be;

- a. chondroitin sulphate
- b. Vitamin A
- c. calcium
- d. B-complex

a

393. A patient presents complaining of knee pain which is worse when walking up the stairs or when rising from the seated position. The patient states that his knees "gives out" but doesn't lock.

- a. osteochondritis dessicans
- b. chondromalacia patella
- c. patellar tendonitis
- d. Osgood-Schlatter's

b

394. Identify the sagittal view from the silhouettes below.



- a. ***b***
- b.
- c.
- d.

395. A 50 year old woman presents with pain of the left wrist. She states that she fell on an outstretched hand. Which of the following fracture correspond to her history and x-ray?

- a. Smith
- b. Colle's
- c. Bennett's
- d. Barton's

b

396. The lesion indicated by the arrow in the diagram below would most likely be;



- a. cyst
- b. rheumatoid nodule
- c. Bouchards node
- d. Heberden's node

b

397. A 36 year old male presents with neck pain one week after a motorcycle accident (The diagram depicts the manner in which he fell). He has anesthesia of the left arm and shoulder. He has an absent left biceps reflex and he is unable to abduct the left arm at all. Based upon the available information, the prognosis for this patient should be considered to be;



- q. good
- r. fair
- p. poor
- q. no recovery likely

d

398. The condition depicted in the diagram below is;



- a. entropion
- b. exophthalmosis
- c. chalazion
- d. pinquecula

a

399. The first type of exercise that would be used in a case of a musculo-skeletal or a joint injury;

- a. active
- b. passive
- c. active assisted
- d. active resistive

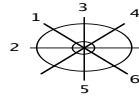
b

400. A 24 year old male patient with neck pain presents a history. He states that he fell on his buttocks with minimal impact. Based on this history and the radiograph below, what is the most likely diagnosis;

- a. osteolytic metastasis to the cervicals
- b. compression fracture of C7
- c. pathological compression of C7

c

402. Cranial nerve III does not innervate eye movement in which direction?

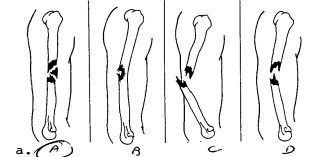


Right eye

- a. 1
- b. 2
- c. 3
- d. 4.

b

402. Which of the following fractures in the diagram below represent a comminuted fracture?



- a. ***a***
- a.
- b.
- c. d.

403. drawing of an acromegaly man



404. A patient presents with pes planus. Which of the following do you not do?

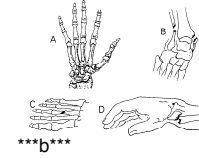
- a. give high heels
- b. medial wedge
- c. lateral wedge

c

405. Select the features that are most suggestive of a spinal tap headache;

| | posture | time | location | activity |
|---|---------|------|----------|----------|
| a | upright | am | frontal | aerobics |

406. In Diagram A, which of the following represents a Pott's fracture;



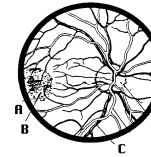
b

407. In Diagram B, which of the following represents a Colle's fracture?



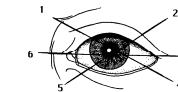
d

408. Identify the fovea centralis in diagram C.



a

409. Cranial nerve number III innervates all of the following muscles except;



- a. 1 and 4
- b. 5 and 3
- c. 4 and 6
- d. 5 and 6

b

410. Which muscle is the doctor in Diagram E palpating with his left thumb?



- a. upper trapezius
- b. lower trapezius
- c. rhomboids
- d. latissimus dorsi

c

411. The doctor in Diagram F is testing which muscle?



- a. latissimus dorsi, teres minor, posterior deltoid
- b. anterior deltoid, coracobrachialis
- c. middle deltoid, supraspinatus
- d. pectoralis major, latissimus dorsi

c

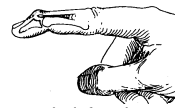
412. Identify the listing for the segments in Diagram H;



- a. ALI
- b. PRI-PS
- c. PLI- PRS
- d. PLS

b

413. The diagram below demonstrates which of the following conditions?



- a. swan neck deformity
- b. Sprengel's deformity
- c. boutonniere's deformity
- d. mallet finger

d

414. To correct a fixation demonstrated in the diagram below in the thoracics, using a knife-edge contact on the spinous process;



- a. superior
- b. lateral
- c. flexion
- d. extension

a

415. The area indicated by the diagram is known as;



- a. tunnel of Guyon
- b. hook of the hamate
- c. anatomic snuff box
- d. carpal tunnel

c

416. In a traction injury to the nerves of the brachial plexus, what would be your recommended course of treatment?

- a. cervical traction
- b. arm sling
- c. resisted range of motion

b

417. Which sensory component is involved when testing the cornea of the eye with a cotton wisp?

- a. II
- b. III
- c. V
- d. VII

c

418. A 60 year old female has low back pain and spotting. Her history reveals she is on estrogen therapy. What is your recommended management of the patient?

- a. refer to her gynecologist

419. The double fat pad sign indicates?

- a. interarticular disturbance

420. Protrusion of the femur head into the pelvic cavity is also known as;

- a. Otto's pelvis

421. A 20 year old male presents with back pain and a history of a previous healed Scheuermann's disease;

- a. pursue Chiropractic care

422. Patient cannot extend leg fully with the hip in flexion and has meningeal irritation. Which test is it?

- a. Brudzinski's
- b. Kernig's
- c. Babinski
- d. O'Connell

b

423. Identify the type of subluxation which is characterized by abnormal excessive movement upon extension with instability;

- a. fixation
- b. traumatic
- c. defect
- d. hypermobile

d

424. 35 year old male with a blood pressure of 145/92. This would be considered;

- a. normotensive
- b. moderate-severe hypertension
- c. low-mild hypertension
- d. malignant hypertension

c

425. With a patient standing, the umbilicus will be found at the level of;

- a. L1
- b. L3
- c. L5
- d. S2

b

426. A 52 year old male experiences deep, severe retrosternal pain and pressure which occurs when mowing the lawn or after eating a heavy meal. The symptoms lasts for 5 minutes?

- a. hiatal hernia
- b. angina pectoris
- c. myocardial infarction
- d. pulmonary disease

b

427. The pain from myocardial infarct can be distinguished from angina pectoris by;

- a. duration
- b. intensity
- c. character
- d. location

a

428. Sclerotomal pain is best described as:

- a. sharp shooting
- b. pins and needles
- c. numbness
- d. dull and achy

d

429. Which of the following clinically presented cases would most likely require referral to a medical specialist?

- a. lumbosacral ache after lifting a heavy object
- b. mild cervical pain and stiffness with associated weakness of the legs
- c. low back pain and stiffness that progresses with prolonged standing
- d. painful catch in sacroiliac joint that is exacerbated with rotation movement of trunk

b

430. An eleven year old female presents with a red, swollen tender right knee; non itchy salmon colored maculopapular rash; general muscle pain, intermittent chills and fever. Upon palpation, knee is warm and tender with limited ROM. Lab reveals increased polymorphonuclear leukocytes, and elevated ESR. What is it?

- a. juvenile rheumatoid arthritis
- b. transient synovitis
- c. dermatomyositis
- d. lupus erythematosus

a

431. Nine year old male presents with insidious onset of groin and medial thigh pain. He has a limp with pain on walking. What would be most appropriate?

- a. Ober's
- b. Ely's sign
- c. Patrick's
- d. Hibb's

c

432. A 43 year old male has pain in mastoid while eating. What adjustment is contraindicated?

- a. take occiput to maximum rotation and thrust mastoid
- b. cup the chin, extend the head and adjust mastoid
- c. stabilize squamous temporal suture and adjust cervical laminae
- d. toggle recoil

b

433. Which would be elevated in ankylosing spondylitis?

- a. serum Ca⁺⁺
- b. serum uric acid
- c. LE prep
- d. ESR

d

434. Which view would best demonstrate a joint mouse?

- a. A-P knee
- b. P-A knee
- c. sunrise
- d. tunnel

d

435. Most common area of skeletal metastasis to affect is:

- a. vertebrae
- b. skull
- c. humerus
- d. femur

a

436. A 68 year old male with pill-rolling tremors and a festination gait is likely to have a lesion in which area?

- a. pyramidal
- b. extra pyramidal
- c. basal ganglia
- d. cerebellar

c

437. Pupil dilates on exposure to bright light and on accommodation to near vision. This would be known as;

- a. Adie's pupil
- b. Argyll-Robertson pupil
- c. paradoxical pupil
- d. anisocoria

c

438. Which of the following is cause for immediate surgical referral?

- a. grade II spondylolisthesis
- b. cauda equina syndrome
- c. lumbo-sacral disc protrusion
- d. pubic-symphysis syndrome

b

439. Patient states that with eyes open the room moves around. When the eyes are closed his body feels like it is moving back and forth.

- a. dizziness
- b. nausea
- c. tinnitus
- d. vertigo

d

440. Patient presents with shoulder pain. Exam reveals decreased glenohumeral motion in all ranges. Trauma occurred six months ago, but none since. What is your diagnosis?

- a. frozen shoulder
- b. shoulder separation
- c. Tietze's syndrome
- d. thoracic outlet syndrome

a

441. Upon taking a step in forward flexion with right leg, right P.S.I.S. will rocks posteriorly and inferiorly. The sacral base on the right side will move;

- a. posterior and superior
- b. posterior and inferior
- c. anterior and superior
- d. anterior and inferior

d

442. Which dietary recommendations would be best for a 56 year old male with degenerative joint disease of weight bearing joints;

- a. calcium and magnesium
- b. ideal body weight
- c. lower cholesterol
- d. manganese

a

443. Which muscle group produces shoulder flexion, elbow flexion and supination?

- a. biceps brachii
- b. triceps brachii
- c. brachioradialis
- d. coracobrachialis

a

444. Increased ilium vertical angle due to muscle weakness.

- a. biceps femoris
- b. adductor magnus?
- c. tensor fascia
- d. hamstrings

a

445. The long axes of the occipital condyles converge?

- a. posteriorly
- b. anteriorly
- c. laterally
- d. superiorly

b

446. What is associated with a L.M.N.L?

- a. fasciculations
- b. tics
- c. chorea
- d. athetosis

a

447. 26 year old secretary presents with a hyperkyphosis of the thoracic spine. What muscle groups would you want to strengthen or stretch?

- a. strengthen rhomboid and stretch the pectorals
- b. stretch rhomboid and abdominal
- c. stretch serratus anterior and rhomboid
- d. stretch erector spina and rhomboid

a

448. Which condition is characterized by morning stiffness, lipping and spurring?

- a. RA
- b. OA
- c. gout
- d. osteopenia

b

449. HLA - B27 is seen in which condition:

- a. ankylosing spondylitis
- b. rheumatoid arthritis
- c. gout
- d. rheumatic fever

a

450. 47 year old male presents with mitral stenosis, a temperature of 104°. He has tender nodules on toes and fingers. Examination re-veals small hemorrhages in the skin and retina. He states that he is presently taking no medication. What is the best management of the patient?

- a. refer to internist
- b. adjust and monitor
- c. contact state health agency
- d. refer to ophthalmologist

a

451. Cervical traction injury

- a. arm sling
- b. scalene ant muscle traction
- c. Codman's exercise
- d. passive exercises

a

452. Which of the following groups would be most susceptible to iron deficiency anemia?

- a. prepubertal females
- b. middle aged males
- c. adolescent males
- d. pregnant females

d

453. In a case of soft tissue injury, which modality would you want to use as soon as possible?

- a. ultrasound continuous
- b. infrared
- c. diathermy
- d. interventional

d

454. A 50 year old male presents with hypo-chromic anemia. He has been taking iron supplement for six months with no improvement. Laboratory reveals a decreased serum iron and an increased TIBC. What do you do next?

- a. occult blood
- b. serum count
- c. serum amylase
- d. alkaline phosphatase

a

455. What substance helps the liver produce the glucose tolerance factor?

- a. chromium
- b. selenium
- c. zinc
- d. magnesium

a

456. Which pain is described as aching, poorly localized and associated with nausea, vomiting sweating and increased body temperature?

- a. peripheral nerve
- b. nerve root
- c. thalamic
- d. visceral

d

457. Which of the following represents a functional predisposition to medial knee injury?

- a. hormonal imbalance
- b. toe in gait
- c. bipartite patella
- d. Morton's foot

b

458. Which nerve innervates the P.L.L. and ligamentum flavum?

- a. sinu-vertebral
- b. accessory
- c. long thoracic
- d. Wrisberg

a

459. Left ventricular hypertrophy seen with may be seen in:

- a. aortic stenosis
- b. mitral stenosis
- c. systemic hypertension
- d. vascular

c

460. 36 year old female presents with fatigue, white sclera, and yellow skin especially at palms. What's question should be asked

- a. condition of your RA now
- b. have you eaten excess deep color vegetables
- c. any change in stools
- d. ask about alcohol consumption

b

461. During flexion of the occipital-atlantal joint:

- a. mastoid approximates the mandible
- b. ramus of the mandible and atlas TVP approximation
- c. mandible approximates the mastoid
- d. mandible separates from the mastoid

b

462. An indication of immature WBCs in peripheral blood in absence of infection.

- a. bone marrow disease
- b. acute blood loss
- c. parasitic infection
- d. starvation

a

463. Evidence of stalk-like mushroom projection from the metaphysis of long bone

- a. solitary osteochondroma
- b. benign osteoblastoma
- c. osteoid osteoma
- d. non-ossifying fibroma

a

464. A person with which of the following may have a normal ESR?

- a. ankylosing spondylitis
- b. multiple myeloma
- s. fibrositis
- t. rheumatoid arthritis

c

465. Glucose Tolerance test levels increase and continue to increase for six hours of test.

- a. severe diabetes
- b. mild diabetes
- c. hypothyroidism
- d. hypoglycemic

a

466. Which condition may be characterized by a lesion at the anterior horn and the corticospinal tract?

- a. amyotrophic lateral sclerosis
- b. multiple sclerosis
- c. muscular dystrophy
- d. Parkinson's

a

467. Most likely diagnosis of 35 year old with facial drooping.

- a. Bell's
- b. Parkinson's
- c. myasthenia gravis
- d. multiple sclerosis

a

468. Which supplement to diet make result in black stools?

- a. vitamin A
- b. iron
- c. licorice root tea
- d. fiber

b

469. Bacterial endocarditis may result in.

- a. cherry red skin
- b. petechia
- c. jaundice
- d. rachitic rosary

b

470. Picture of lateral and AP view of a PRI

- a. extension malposition, body right, left lateral flexion
- b. extension malposition, spinous right, right lateral flexion
- c. flexion malposition, body right, left lateral flexion
- d. flexion malposition, spinous right, left lateral flexion

b

471. Which cervical vertebra will move anterior upon the extension of the neck?

- a. C2
- b. C3
- c. C4
- d. C6

d

472. To achieve an upright position, a young male patient with Duchenne's Palsy, "climbs up" his lower extremities. This is known as?

- a. Minor's sign
- b. Gowers' sign
- c. Brudzinski's sign
- d. Kernig's sign

b

473. Which muscle may cause pain in lateral thigh, anterior leg, and the dorsum of the foot?

- a. gastrocnemius
- b. piriformis
- c. psoas
- d. gluteus maximus

b

474. Which of the following is a contraindication to UV light?

- a. alopecia funicularis
- b. lupus vulgaris
- c. lupus erythematosus

c

475. Nyctalopia is a deficiency of which vitamin?

- a. A
- b. B
- c. C
- d. D

a

476. In what age group do people with Huntington's chorea most often present?

- a. 5-10
- b. 10-20
- c. 20-35
- d. 35-50
- e. 50-65

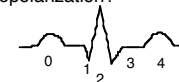
d

477. Kayser-Fleischer rings in the cornea is apparent in which disease?

- a. Wilson's
- b. Addison's
- c. Horner's
- d. Charcot's triad

a

478. Which portion of the EKG below represents atrial depolarization?



- a. 1
- b. 2-3-4
- c. 4-5
- d. 0

d

479. Which area in the diagram below represents ventricular depolarization?



- a. 1,2,3
 - b. 2,3,4
 - c. 3,4,5,
 - d. 0
- ***a***

480. Decrease proportion of calcium and therefore a decreasing kidney stones is a result of administering which of the following?

- a. Vitamin A
 - b. Vitamin C
 - c. chromium
 - d. magnesium
- ***d***

481. Which of the following would you not do in the management of carpal tunnel syndrome?

- a. therapeutic hot and cold
 - b. flexion exercises to strengthen wrists
 - c. cock up splint
 - d. adjusting procedures
- ***b***

482. What is the most common site for a stress fracture of the foot?

- a. calcaneus
 - b. second metatarsal
 - c. third metatarsal
 - d. navicular
- ***b***

483. What line runs down the posterior aspects of the vertebral body?

- a. Jackson's
 - b. George's
 - c. digastric
- ***b***

484. Which of the following is characterized by the appearance of calcified plaques at the femoral insertion of the medial collateral ligament follow-ing partial avulsion of the ligament from the condyle?

- a. synovitis
 - b. Baker's cyst
 - c. osteochondromatosis
 - d. osteochondritis dessicans
 - e. Pelligrini-Stieda
- ***e***

485. Facet hypertrophy or degenerative changes of articular processes will cause which of the following syndromes?

- a. lateral recess stenosis
 - b. D.I.S.H.
 - c. spondylolisthesis
 - d. articular tropism
- ***a***

486. Which of the following is performed with the patient prone?

- a. McMurray's
 - b. Apley's
 - c. Drawer sign
 - d. Bounce home
- ***b***

487. A man with low back pain has pain in his calf when bending at the trunk. After 4 weeks of chiropractic care his back pain subsides but the calf pain persists and is not affected by trunk position, what is the best management for this case?

- a. inversion therapy for 2 weeks
 - b. over the counter anti-inflammatory medicine
 - c. regimen of calf stretching
 - d. MRI
- ***d***

488. Which of the following modalities is indicated for use with acute tissue damage?

- a. ultraviolet
 - b. s.w. diathermy
 - c. ultra sound
 - d. interferential
- ***d***

489. What tests for cerebellar dysfunction?

- a. limb drop test
 - b. cogwheel rigidity
 - c. deep tendon reflex
 - d. finger to nose test
- ***d***

490. A 70 year old male patient presents with pain in the calves after walking for a short period of time. He states that the pain is relieved after sitting down and bending forward for approximately 20 minutes. Based on the information given what is the most likely diagnosis?

- a. peripheral vascular disease
 - b. neurologic claudication
 - c. peripheral neuritis
 - d. Buerger's disease
- ***b***

491. In which of the following disorders are the apophyseal articulations spared from destruction?

- a. rheumatoid arthritis
 - b. osteoarthritis
 - c. D.I.S.H.
 - d. osteoarthritis
- ***c***

492. Blood mixed with anticoagulant powder to prevent clotting and centrifuged to separate the cells produces a liquid:

- a. serum
 - b. plasma
 - c. fibrinogen
 - d. hematocrit
- ***b***

493. Which of the following would massage of hypertonic gastrocnemius muscles be contraindicated?

- a. pain in gastrocnemius
 - b. numbness in gastrocnemius
 - c. phlebitis
 - d. knee joint immobility
- ***c***

494. A female has chronic low grade headache that gets worse as day goes on. She is not awakened at night, but has the headaches when she wakes up. The headache is relieved by concentrating on a single task, or by taking a couple of alcoholic drinks. What type of headache?

- a. temporal arteritis
 - b. hypertension headache
 - c. common migraine
 - d. classic migraine
- ***b***

495. Festinating gait, pill rolling tremors, what else would they have

- a. intention tremor
 - b. steppage gait
 - c. nystagmus
 - d. cogwheel rigidity
- ***d***

496. Inability to heel walk with what level?

- a. L3
 - b. L4
 - c. L5
 - d. S1
- ***c***

497. A 15 year old male athlete presents with a tenderness over the plantar aspect of the calcaneus. There is normal alignment of the anatomy and there are no remarkable radiographic findings. What would you do to relieve the pain?

- a. stretch calf muscles
 - b. strengthen tibialis anterior muscle
 - c. strengthen the intrinsic foot muscles
 - d. use metatarsal pad
- ***d***

498. What type of destruction would you have with increased Ca^{++} , increased phosphorus, increased alkaline phosphatase

- a. kidney
 - b. liver
 - c. bone
- ***c***

499. 14 year old patient presents with mottled teeth. What would be most appropriate questions

- a. source of drinking water
 - b. dietary intake of fats
 - c. cravings for certain food (?)
 - d. dietary intake of calcium
- ***a***

500. The presence of metastasis in bone can be most accurately diagnosed with use of:

- a. CT scan
 - b. lab study
 - c. plain film X-Rays
 - d. radionuclide bone scan
- ***d***

501. The most common cause of vacuum phenomena in discs is?

- a. disc degeneration
 - b. trauma
 - c. metastasis
 - d. rheumatoid arthritis
- ***a***

502. Suspect epidural hematoma, how do you handle case?

- a. Davis series
 - b. CT
 - c. wait 24 hours
 - d. Send X-rays to radiologist for second opinion
- ***b***

503. Which of the following condition most likely result in dull percussion note?

- a. acute asthma
 - b. pneumothorax
 - c. emphysema
 - d. pneumonia
- ***d***

504. The pause after QRS complex on EKG known as

- a. T wave
 - b. ST segment
 - c. QRS wave
 - d. P wave
- ***b***

505. 40 year old male has microcytic, hypochromic anemia. He took medication for 6 months with no apparent relief. What procedure would you perform?

- a. copper
 - b. occult blood stool
 - c.
 - d. Bence Jones urinalysis
- ***b***

506. A patient presents with weakness in the right arm and a lemon shaped mass in the antecubital fossa. He went bowling two days ago. What is the most likely diagnosis?

- a. strain of the brachialis with edema
 - b. rupture of the biceps tendon
 - c. rupture of the triceps tendon
 - d. hypertrophy of the distal portion of the biceps
- ***b***

507. Which palpation technique uses joint play and the dis-relation between joints?

- a. static
 - b. joint play palpation
 - c. motion palpation
- ***b***

508. A 32 year old male presents with neck and upper lumbar pain. Cervical ranges of motion is decreased. One month previous, he had fatigue, weight loss. His M.D. told him that he had a "mild pneumonia". He had similar symptoms once before. Examination of the oral and buccal tissues reveals red streaks and lines. His CBC reveals a low lymphocyte count. What is the most likely diagnosis?

- a. spinal meningitis
 - b. acquired immunodeficiency syndrome
 - c. Hodgkin's
- ***b***

509. The major branch of nerve tested with abduction and opposition

- a. radial
 - b. ulna
 - c. median
 - d. axillary
 - e. musculocutaneous
- ***c***

510. Most likely diagnosis of male with a + Valsalva's, Dejerine +Triad and + Naffziger's?

- a. protruded disc
 - b. L muscle strain
 - c. hip subluxation
 - d. intermittent claudication
- ***a***

511. Female distended veins in neck dyspnea, enlarged heart, muffled heart sounds.

- a. pericardial effusion
 - b. pericarditis?
 - c. acute MI
 - d. chronic obstructive lung disease
- ***a***

512. Throbbing headache over the occiput and vertex?
 a. post concussion headache
 b. psychogenic headache
 c. hypertension headache
 d. cluster headache
 c

513. Which of the following is the most likely cause of bradycardia?
 a. increase in intracranial pressure
 b. acute fever
 c. hyperthyroidism
 d. ? hypertension/pleurisy
 a

514. What vertebral spinous appears to disappear because the segment moves anterior compared to segment below when extending the head back?
 a. C1
 b. C2
 c. C6
 d. T3
 c

515. 30 year old male now in the spring gets a pain over the left eye. The pain happened last fall, and the pain lasts approximately 45 minutes, and the pain is over the left eye and tearing of the eye.
 a. cluster headache
 b. sinus infection
 c. migraine
 d. temporal arteritis
 a

516. Sharp shooting knife like pain is indicative of:
 a. tic douloureux
 b. Bells palsy
 c. myofascitis
 a

517. Clubbing of finger, supraclavicular lymph node swelling, retrosternal pain
 a. bronchogenic CA
 b. COPD
 a

518. 40 year old male with mid back pain. X-ray reveals a healed Scheuermann's
 a. refer out
 b. adjust
 c. lab checking for Bence Jones
 d. CBC
 b

519. A 65 year old presents with fatigue, shortness of breath, cyanosis, edema of the hands and feet. What does she have?
 a. congestive heart failure
 b. acute MI
 c. angina pectoris
 a

520. Megaloblastic anemia - what vitamin for diet?
 a. pantothenic acid
 b. biotin
 c. riboflavin
 d. folic acid
 d

521. On view of x-ray above the scoliosis is due to?
 a. infectious
 b. idiopathic
 c. congenital
 d. neuropathic
 c

522. Which cranial nerve would be responsible in the patient can't move eye in position 2
 a. III
 b. IV
 c. VI
 d. X
 a

523. Two views of Ewing's w/ laminations, Codman's cuff and systemically ill (fever, sweats, etc.).
 a. Ewing's sarcoma
 b. osteomyelitis
 c. osteosarcoma
 d. osteitis deformans
 a

524. 10 year old presents with pain in the wrist and hand. This may be due to which of the following.
 a. unicameral one cyst
 b. giant cell tumor
 c. aneurysmal bone cyst
 d. osteolytic metastasis
 a

525. Which of the following is a macrocytic anemia?
 a. iron deficiency
 b. pernicious anemia
 c. aplastic anemia
 d. thalassemia anemia
 b

526. A 56 year old male has a 4 year history of left upper and lower extremity weakness, which has worsened over the last 4 months. It was of insidious onset. He has trouble climbing stairs. He is experiencing twitching of the arms and legs. Neurological exam reveals marked emaciation, weakness, and atrophy of all 4 limbs. Deep tendon reflexes are decreased on the right. Babinski is positive on the left. These findings are characteristic of?
 a. chronic degenerative disease
 a

527. All of the following are consistent of this case except?
 a. the motor system is affected.
 b. there are signs of UMN
 c. there are signs of LMN
 d. there is a brain stem lesion
 d

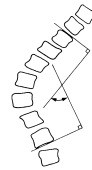
528. What is the most likely diagnosis?
 b. amyotrophic lateral sclerosis
 c. multiple sclerosis
 a

529. The examiner passively abducts the shoulder to test for a supraspinatus tear and there is pain. The is known as;
 a. apprehension
 b. Dugas'
 c. Yergason's
 d. Codman's drop arm
 d

530. Weber's test in a patient with nerve deafness in the right ear will demonstrate;
 a. sound lateralizes to the right ear
 b. sound lateralizes to the left ear
 c. blockage of the right ear
 b

531. Which of the following modalities would be used in acute ankle sprain?
 a. ultrasound
 b. diathermy
 c. low volt galvanic
 d. interferential
 d

532. Which method for scoliosis is being demonstrated in the figure above?



- a. Cobb's
 b. Risser-Ferguson's
 c. Ferguson's
 d. Ullmann's
 a

533. Which condition could cause numbness of the dorsal aspect of the foot, with no sensation between the web of the great toe and second toe;
 a. anterior compartment syndrome
 b. superficial peroneal nerve occlusion
 c. lateral disc stenosis
 d. tarsal tunnel syndrome
 b

534. A 22 year old patient presents with right arm weakness. Muscle strength testing of the biceps reveals a palpable contraction but no joint motion. How would this be rated?
 a. 1 trace
 b. 2 poor
 c. 3 fair
 d. 4 good
 a

535. What condition would be suggested by "pill-rolling"?
 a. multiple sclerosis
 b. Parkinson's
 c. myasthenia gravis
 b

536. An inability to abduct the thumb is a lesion of the ___ nerve.
 a. ulnar
 b. median
 c. radial
 d. musculocutaneous
 b

537. Bell's Palsy is associated with which cranial nerve?
 a. CN V
 b. CN VII
 c. CN IX
 d. CN XI
 b

538. Tic Douloureux is associated with which cranial nerve?
 a. CN V
 b. CN VII
 c. CN IX
 d. CN XI
 a

539. Winging of the scapula is associated with which muscle?
 a. serratus anterior
 b. rhomboid major
 c. levator scapulae
 d. trapezius
 a

540. Which of the following will result from an ulnar nerve neuropathy?
 a. claw hand deformity
 b. ape hand deformity
 c. wrist drop deformity
 d. carpal tunnel syndrome
 a

541. A patient presents with paresthesia of the lateral 3 digits of the right hand. Exam reveals numbness, weakness and atrophy of thenar eminence. Which of the following is the most probable diagnosis?
 a. reflex sympathetic dystrophy syndrome
 b. brachial plexus neuritis
 c. carpal tunnel syndrome
 d. myofascial pain syndrome
 c

542. C6 nerve root innervates which muscle?
 a. triceps brachii
 b. biceps brachii
 c. extensor carpi radialis
 d. flexor digitorum superficialis
 c

543. Abduction of the legs is associated with which cord level?
 a. L2
 b. L3
 c. L4
 d. L5
 d

544. Innervation to the wrist flexors is supplied by which cord level?
 a. C7
 b. C8
 c. T1
 d. T2
 a

545. Innervation to the triceps is supplied by which cord level?
 a. C6
 b. C7
 c. C8
 d. T1
 b

546. Finger abduction and adduction are innervated by which nerve?
 a. C7
 b. C8
 c. T1
 d. T2
 c

547. The steppage gait is suggestive of which of the following?
 a. upper motor neuron lesion
 b. lower motor neuron lesion
 c. sensory ataxia
 d. cerebellar ataxia
 b

548. Which gait will be seen in anterior tibialis muscle damage?
a. steppage
b. festinating
c. cerebellar
d. spastic
a
549. A cerebellar problem may demonstrate:
a. steppage gait
b. posterior columns problem
c. vestibular problem
c
550. Fasciculations are associated with?
a. lower motor neuron lesion
b. upper motor neuron lesion
c. both UMNL and LMNL
d. cerebellar lesion
a
551. Hyperreflexia is caused by?
a. lower motor neuron lesion
b. upper motor neuron lesion
c. both UMNL and LMNL
d. cerebellar lesion
b
552. Which of the following is present with an upper motor neuron lesion?
a. dysdiadochokinesia
b. spasticity
c. paresthesia
d. areflexia
b
553. Which condition may be associated with "spastic legs" and "weak arms"?
a. amyotrophic lateral sclerosis
554. Anterior compartment syndrome is associated with?
a. upper extremity
b. lower extremity
b
555. Nerve root pain is explained as:
a. shooting pain
b. stabbing pain
c. dull ache
d. burning pain
a
556. The hook of the hamate and pisiform are associated with the:
a. carpal tunnel
b. tunnel of Guyon
b
557. What nerve goes through the tunnel of Guyon?
a. median nerve
b. ulnar nerve
c. radial nerve
d. musculocutaneous nerve
b
558. The most common shoulder injury for a javelin thrower and baseball pitcher;
a. acromio-clavicular separation
b. sterno-clavicular separation
c. bicipital tendonitis
d. supraspinatus/rotator cuff injury
c
559. Which of the following would be used to test the iliotibial band?
a. Yergason's
b. Patrick's
c. Ober's
d. Soto-Hall
c
560. An examiner instructs the patient to bring the shoulders back and down would be testing for?
a. costoclavicular syndrome
b. scalenus anticus syndrome
c. pectoralis minor syndrome
d. cervical rib syndrome
a
561. Which of the following ranges of motion would be most restricted in adhesive capsulitis?
a. abduction and internal rotation
b. extension and external rotation
c. abduction and external rotation
d. extension and internal rotation
c
562. Which phase of walking would present more pain with a Morton's neuroma?
a. heel strike
b. toe off
c. mid-stance
d. swing phase
b
563. A man has pain from the sole to the ball of the foot which is increased while jogging. This is most likely associated with?
a. S1 nerve
b. plantar fasciitis
c. Morton's neuroma
b
564. Treatment of an increased Q-angle includes?
a. strengthen vastus medialis
b. strengthen quadriceps
c. strengthen hamstrings
d. patellar support band
a
565. Which of the following problems would a patient experience with an increased Q-Angle?
a. patello-femoral syndrome
b. Osgood-Schlatters
a
566. An increase in Q-Angle would indicate:
a. greater potential for patellar dislocation
b. greater stability
c. has no real consequence
a
567. What maneuver of daily activities would most likely aggravate scalenus anticus syndrome?
a. sleeping on several pillows
b. raising weight to chest
c. typing on a key board
d. working with arms overhead
d
568. A 35 year old man comes in complaining of low back pain which is exacerbated by trunk flexion, and relieved by trunk extension. What is the least likely diagnosis?
a. lumbar spinal stenosis
b. lumbar interspinous ligament strain
c. bulging lumbar disc
d. lumbar extensor muscle sprain
a
569. Tendonitis is most commonly seen with which muscle?
a. biceps brachii
b. supraspinatus
c. triceps brachii
b
570. A man presents with pain when bending over and when bending backwards. When he gets up from sitting, his back also hurts. Orthopedic and neurologic signs are negative, and x-rays are negative for pathology;
a. facet syndrome
b. lumbosacral muscular sprain/strain
b
571. What area of long bone is the most metabolically active and therefore the most susceptible to infection or disease?
a. diaphysis
b. metaphysis
c. epiphysis
d. periosteum
b
572. Which of the following neoplasms may demonstrate a nidus?
a. osteoma
b. osteochondroma
c. osteosarcoma
d. osteoid osteoma
d
573. Which is not a differential diagnosis of a single white ivory vertebrae?
a. osteoblastic metastatic carcinoma
b. hyperparathyroidism
c. osteitis deformans
d. Hodgkin's lymphoma
b
574. Radiographs for spinal distortion should be taken with the patient in which of the following positions;
a. supine
b. side lying
c. weight bearing
d. comfortable patient position
c
575. A vertical loading force (axial compression) will first affect which structure of the spine?
a. endplates
b. vertebral body
c. pars
d. facets joints
a
576. Which would not be a radiographic finding for osteoporosis?
a. hyperkyphotic curve
b. accentuation of vertical trabeculae
c. accentuation of horizontal trabeculae
d. wedge shaped vertebrae
c
577. A 25 year old athletic male presents with an anterior slippage of L5 on the sacrum and a corresponding bilateral pars defect. This would be classified as;
a. degenerative spondylolisthesis
b. isthmic spondylolisthesis
c. dysplastic spondylolisthesis
d. spondylolysis
b
578. Which of the following imaging methods would be best to diagnose cancer?
a. CT
b. MRI
c. bone scan
c
579. What is the most common primary malignancy of the spine?
a. multiple myeloma
b. osteosarcoma
c. Pagets
d. metastatic carcinoma
a
580. Which of the following would cause ankylosing and osteoporosis? (There were no HLA-B27 choices!)
a. rheumatoid arthritis
b. osteitis pubis
a
581. What is the least amount of bone loss needed to be evident on radiograph?
a. 15%
b. 20%
c. 30%
d. 45%
c
582. Radiation badges lack what?
a. don't record high radiation
b. badge doesn't compute how much until x-rays are taken
b
583. A person with calcium oxalate kidney stones should avoid taking which of the following supplements?
a. Vitamin B 9
b. Fe
c. vitamin C
d. vitamin D
c
584. Myofascial pain, what corresponds?
a. vitamin A
b. vitamin B
c. calcium and magnesium
d. vitamin D
c
585. What is not a contraindication for a migraine?
a. nuts
b. chocolate
c. aged cheese
d. eggs
e. milk
d or e
586. Which nutritional supplement promotes healing?
a. zinc
b. calcium
a
587. Which of the following diets will require an increase in calcium consumption?
a. high protein
b. low fat
c. low fiber
d. high carbohydrate
a

588. The transverse portion of the cruciate ligament attaches to the;
a. odontoid process
b. C1 transverse
c. lateral mass of atlas
d. C2 transverse
c
589. What blood test would most likely be altered in Paget's disease.
a. alkaline phosphatase
b. thyroid profile
c. serum calcium
d. acid phosphatase
a
590. Guaiac test;
a. blood
b. iron
a
591. HLA-B27;
a. ankylosing spondylitis
592. Which of the following lab increases would give the worst prognosis for a patient recovering from a myocardial infarction;
a. CPK - 8 times
b. SGOT - 4 times
c. LDH - 2 times
d. cholesterol - 2 times
a
593. CPK increases with myocardial infarct according to;
a. the size of the heart muscle
b. the length of the infarct
c. the size of the infarct
d. the stage of the infarct
c
594. A man losing weight has a PSA level of 8. What is the most likely diagnosis?
a. prostate cancer
b. multiple myeloma
a
595. The normal RBC count is:
a. 4.2 - 5.8 million/mm³
b. 11 - 13.6 million/mm³
c. 15.7 - 20.4 million/mm³
d. 28.3 - 31 million/mm³
a
596. Lab results reveal a MCV level of 101. This would be most suggestive of;
a. TIBC
b. B12 deficiency
c. B6 deficiency
b
597. A 57 year old male comes to your office for a regular visit. He reports recent urinary discoloration. Which question would you ask to keep from performing unnecessary tests on the patient?
a. recent emotional stress
b. recent sexual activity
c. increased intake of carbonated beverages
d. recent use of over-the-counter laxatives
d
598. A woman presents complaining of burning urination. What question would best lead you to a diagnosis?
a. Is it cloudy?
599. A patient presents in your office immediately following a car accident. Which of the following would be the least important question to ask the patient?
a. present complaint and symptoms
b. what was the damage to the car
c. position of the patient
d. have you been in an accident before?
b
600. Which of the following should the doctor do when taking a history?
a. write detailed notes while the patient is talking and asking him to slow down when necessary
b. use your own shorthand, writing down highlights only
c. write down key words and fill in the blanks later
d. focus mainly on "yes" or "no" answers
c
601. Which part of the exam would most lead you to the diagnosis?
a. case history
b. x-ray
c. physical exam
d. lab
a
602. Which of the following would be the most likely to know in advance of a suicide attempt?
a. family
b. counselor
c. teachers
d. peers
d
603. A 54 year old woman is hyperkyphotic in the thoracic region, with chronic myalgia throughout entire body. She presents with pain and swelling over the right hip which occurred 2 days after walking. Preliminary diagnosis:
a. systemic infection
b. inflammatory arthritis
c. vascular embolism
b
604. What is the initial case management?
a. x-ray
b. blood test
c. orthopedic test
a
605. If no cause for the patients pain can be determined after the initial visit, what should the next step be?
a. manipulation
b. MRI
c. bed rest
d. refer
d
606. Systolic stenosis will best be heard at?
a. right second intercostal space
b. left intercostal space
c. apex
a
607. Which condition would you most likely hear during diastole?
a. aortic stenosis
b. mitral stenosis
c. pulmonic stenosis
d. mitral valve prolapse
b
608. Constant sacral pain;
a. prostatitis
b. lumbar disc problem
a
609. Right groin pain;
a. appendicitis
b. gall stone
a
610. A 56 year old male presents with urination difficulty and pain. What is the case management;
a. KUB
b. superficial palpation
c. deep palpation
a
611. A patient presents with epigastric pain. What would you do first?
a. deep palpation
b. light palpation
c. CBC
d. UA
b
612. Which of the following is associated with malar flush?
a. myocardial infarct
b. tachycardia
c. mitral stenosis
d. angina pectoris
c
613. Palpation of a 55 year old male reveals a smooth rubbery, rounded prostate. It is 6 c.m. by 3 c.m., and asymmetrical;
a. normal
b. prostatic carcinoma
c. benign prostatic hypertrophy
d. acute prostatitis
d
614. A 15 year old with a history of falling asleep suddenly and having an irresistible urge to sleep?
a. narcolepsy
b. sleep apnea
a
615. Which type of coma can not be distinguished by breath odor?
a. traumatic
b. diabetic
c. hepatic
d. uremic
a
616. What is suggested by non-movable left supraclavicular lymph enlargement?
a. tuberculosis
b. mononucleosis
c. G.I. metastatic carcinoma
d. multiple sclerosis
c
617. At what age does a person usually first experience a migraine headache?
a. before the age of 10
b. puberty
c. over 20 years of age
d. 20-40 years of age
b
618. A 28 year old male has a constant headache that began 2 days ago while playing basketball. The headache is not relieved by any medications. The patient's father died from cerebrovascular accident at the age of 45. What would be your most likely diagnosis?
a. Berry aneurysm of the circle of Willis
b. migraine headache
c. cluster headache
d. tension headache
a
619. Which of the over-the-counter treatments for children with Reye's syndrome has been discontinued?
a. laxatives
b. cough suppressant
c. acetaminophen
d. aspirin
d
620. What skin condition effects the face upper chest, and back?
a. acne
b. eczema
c. psoriasis
a
621. Which of the following changes to the nails is caused by psoriasis?
a. clubbing
b. pitting
c. white lines
d. splinters
b
622. Orthostatic hypotension is caused by;
a. prolonged standing
b. standing up
c. sitting
d. lying down
b
623. A patient presents with typical meningitis symptoms. Which position is most indicative of her problem;
a. flexion of the neck
624. A person that has been camping for 2 weeks. has developed a rash starting on their arms and has spread to the trunk. What is the most likely diagnosis?
a. histoplasmosis
b. coccidiomycosis
c. Lyme's disease
d. cryptosporidiosis
c
625. Which of the following precede the skin lesion in Lyme disease?
a. nausea vomiting
b. stiff neck and headache
c. crepitus
a. low back pain
c. dizziness
d. cardiovascular problems
b
626. Bilirubin turns a caucasian's skin what color;
a. yellow
b. orange
c. blue
a
627. Patient presents with graying of the cornea and possible blindness:
a. glaucoma
b. cataracts
c. senile macular degeneration
b
628. Which could cause palpitations and high fasting blood sugar?
a. diabetes mellitus
b. coronary infarct
c. angina pectoris
d. pheochromocytoma
d

629. You suddenly come across your child with the car running and the garage door down, you suspect CO poisoning. What signs do you see?
a. mucosa pallor, with cherry pink lips
b. clonus with cherry pink lips
c

630. A family history on an adult patient would be important for which of the following conditions?
a. migraine headaches
b. coccidioidomycosis
c. appendicitis
d. strep throat
a

631. Which of the following is a clinical feature of Grave's disease?
a. atrophied thyroid gland
b. exophthalmos
c. facial edema
d. tachycardia that disappears when sleeping
b

632. Which of the following is provocative to intermittent claudication in a suspected individual?
a. rest
b. inflammation
c. exercise
d. infection
c

633. Systemic lupus erythematosus will effect which type of tissue?
a. bone
b. nerve
c. connective
d. mucous
b

634. Healthy young man with sudden pain
a. pneumothorax
b. sarcoidosis
c. pleural effusion
a

635. Acute serous otitis media?
a. amber
b. red
c. brown
a

636. Main pulmonary function
a. TV
b. RV
c. VC
c

637. A 50 year old male presents with a festination gait and slight drooling. Which of the following is most suggestive?
a. Parkinson's disease
b. Reiter's syndrome
c. ankylosing spondylitis
a

638. Which of the following does not have blood colored stools?
a. Meckel's diverticulum
b. anal polyps
c. hemorrhoids
a

639. A 10 year old boy presents with a 10 day history of sore throat and diarrhea. There is a hip contracture at 90° flexion, what is the initial case management;
a. refer
b. hip orthopedic test
c. traction hip
b

640. A pregnant female presents with chronic sacroiliitis and right iliac pain. What would you recommend for home treatment?
a. TENS
b. abdominal support
c. maternity lumbar support
d. moist heat
e. diathermy
c

641. Which of the following is not an appropriate case management for a patient with carpal tunnel syndrome?
a. manipulate the lunare
b. manipulate the cervical spine
c. keep hand in flexion
d. instruct the patient on ergonomics
c

642. A patient presents with constant pain at the lateral aspect of the rib cage. Two days ago, he fell and hit the side of the bath tub. What would you do first?
a. refer to the hospital
b. x-ray
c. consult with another chiropractor
d. cryotherapy
b

643. A 40 year old male patient experiences a severe headache occurring immediately following an orgasm (after ejaculation). He is afraid to have sex because of the severity of the headache. What would be your management of this patient
a. refer to a urologist
b. refer to psychiatrist
c. refer to neurologist
d. take x-rays and adjust
c

644. A patient with a history of breast cancer presents with nocturnal neck pain. Chiropractic care is unresponsive and cervical radiographs show no obvious findings. What would be the next diagnostic procedure?
a. bone scan
b. EMG
c. CT scan
d. MRI
a

645. A 10 year old athlete presents with femoral anteversion, you should;
a. stretch hip invertors
b. strengthen the hip external rotators
c. instruct to stop running and jogging
a & b

646. A girl falls with her arm outstretched and has a scaphoid subluxation but no fracture. What would be your course of action?
a. give her a wrist support and re x-ray in 2 weeks
b. adjust the subluxated scaphoid
a

647. You come across a 25 year old male who is coughing and holding his throat. What do you do?
a. call 911
b. encourage him to continue coughing
c. deliver 4 back blows
d. deliver 4 abdominal thrusts
b

648. A 50 year old female presents with severe headaches and tunnel vision;
a. take x-ray cervical series and adjust
b. do ophthalmoscopic exam
c. refer for medical care
d. perform cervical orthopedic tests
e. tell her to go home
c

649. What is the management for a patient with moderate hamstring strain?
a. slow jogging
b. ultrasound
c. diathermy
?

650. Mobilization (ROM exercises) is preferred over manipulation for which of the following shoulder joints?
a. acromioclavicular
b. sternoclavicular
c. glenohumeral
d. scapulothoracic
c

651. What is the appropriate management of a 12 year old male with acute Osgood-Schlatter's disease?
a. no weight bearing
b. patellar support band
c. ultrasound the area
d. immobilize the knee
e. strengthen quadriceps
b

652. Proper ischemic compression to a trigger point involves which of the following?
a. gradual increase in pressure
b. gradual pressure to contracted muscle
c. holding the pressure for 7-60 seconds
d. avoidance of repetition of procedure only twice yearly
c

653. With high volt therapy, you have 1 active pad and ___ dispersal pad(s);
a. 1
b. 2
c. 3
d. 4
a

654. Which of the following is an indication for a contrast bath;
a. swollen ankle
b. yellowish bruise with buttock pain
a

655. An ice pack should be removed from the patient when which of the following is noticed?
a. patient's skin turns blue
b. patient's skin turns red
c. patient experiences numbness
d. patient experiences burning
c

656. Which of the following exercises is contraindicated for facet syndrome?
a. McKenzie's
b. abdominals
c. William's
a

657. Treatment of adhesive capsulitis;
a. Kegal exercises
b. Codman's exercises
c. Jacobson's
d. McKenzie's
b

658. How do you do cross frictional massage of the calcaneal fibular ligament?
a. parallel to the fibers
b. perpendicular to the fibers
c. cross frictional massage
b

659. What modality would you not use on a patient with Raynaud's disease?
a. hot packs
b. cold packs
c. ultrasound
a

660. You have a left C5/C6 subluxation. The patient is supine with the head fully rotated to the right. You would cup the ___ and the LOD would be ____.
a. chin; P-A, S-I, through the plane line of the disc
b. chin; A-P, S-I, through the plane line of the facet
c. ear; A-P, I-S, through plane line of the disc
d. ear; P-A, S-I, through plane line of the facet
d best

661. The patient has a right posterior, inferior ilium. The sacrum has gone ____.
a. left anterior, inferior
b. right anterior, inferior
c. left posterior, superior
d. right posterior, inferior
b

662. How would you adjust a plantar flexion inversion sprain?
a. distract superior talus
b. adjust cuboid
a

663. Adjusting C1-C2 subluxation right and extension you contact;
a. C1 articular pillar
b. C1 transverse
c. C2 articular pillar
d. C2 transverse
b

664. Identify the line



a. Chamberlain's
b. George's
c. McGregor's
d. McRae's line
a



- a. sacralization
 - b. inverted Napoleon Hat with a grade 4 spondylolisthesis with anterior displacement
 - c. hemivertebra at L1
 - d. Cupid's Bow
- ***b***

666. What kind of fracture is this?



- a. transcervical
 - b. torus
 - c. avulsion
 - d. stress
- ***a***

667. Where is a Darwinian tubercle usually seen?



- a. 1
 - b. 2
 - c. 3
 - d. 4
- ***b***

668. Which is the sensory neuron?



- a. 1
 - b. 2
 - c. 3
 - d. 4
- ***b***

669. A 30 year old male;



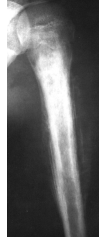
- a. Pagets
 - b. multiple myeloma
 - c. enchondroma
 - d. fibrous dysplasia
- ***d***

670. Identify the condition in the film;



- a. ankylosing spondylitis
 - b. DISH
 - c. multiple myeloma
 - d. hyperparathyroidism
- ***a***

671. 21 year old male



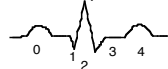
- a. Fibrous Dysplasia
 - b. Ewing's Sarcoma
 - c. Osteochondroma
 - d. Enchondroma
- ***b***

672. Label the S-T segment



- a. 0
 - b. 3-4
 - c. 1-2-3
 - d. 4
- ***b***

673. Label peak # 1 in the diagram.



- a. Q wave
 - b. ST wave
 - c. R wave
 - d. T wave
- ***a***

674. What type of joint is the elbow. (Humerus - radius)?



- a. hinge
 - b. ball-n-socket
 - c. pivot
 - d. saddle
- ***a***

675. A normal cup to disc ratio is; 2:1

676. Patient presents with pain over the shaded distribution. Which of the following conditions is characterized by the area of pain depicted?

- a. pyelonephritis
- b. urethral obstruction
- c. acute appendicitis
- d. bladder infection



A

677. A 23-year-old female presents with 12-hour history of abdominal pain that is lateralized to the right lower quadrant. Which diagnosis is most likely?

- a. biliary tree obstruction
 - b. appendicitis
 - c. diverticulitis
- ***C***

678. A patient presents with foul smelling, mucopurulent sputum;

- a. chronic bronchitis
 - b. bronchiectasis
- ***B***

679. A patient presents with ringing of the ears, sensorineural hearing loss and vertigo;

- a. Meniere's
 - b. multiple sclerosis
 - c. Codman's
 - d. ALS
- ***A***

680. A patient presents with a blood pressure of 170/80. What is the least likely cause?

- a. emotional
 - b. pathological psychological
- ***A & C***

681. Which of the following conditions is most characteristic of prostate carcinoma?

- a. impotence
 - b. hard, painless mass
 - c. urethral discharge
 - d. fever with tachycardia
- ***B***

682. Which of the following findings has the least favorable prognosis?

- a. testicle palpates as a hard, solid mass
 - b. testicle palpates as painful and smooth
- ***A***

683. Which of the following questions would best diagnose Sudeck's atrophy?

- a. family history
 - b. history of trauma
- ***B***

684. Which of the following conditions presents with bronze skin pigmentation?

- a. myxedema
 - b. Cushing's
 - c. Addison's
- ***A***

685. A patient presents with a suprapubic mass, hematuria and increased urination:

- a. cystitis
 - b. ureteral stone
 - c. cholecystitis
- ***A***

686. A 35-year-old man presents with low back pain, nausea and vomiting. Physical exam and history revealed urinary incontinence, urgency, fever, flank pain and abdominal rigidity. Which of the following would be performed first?

- a. UA and CBC
 - b. MRI
 - c. radiographic spine study
 - d. lower GI study
- ***A***

687. Patient has radiating pain down the left leg and an antalgic lean to the right. What would be the most comfortable sleeping position?

- A. lying on back with knees extended
 - B. lying on stomach with knees flexed
 - C. lying on right with pillows between right iliac crest and ribs
 - D. lying on left with pillow between left iliac crest and ribs
- ***A***

689. Which trigger point do you contact for lumbar pain?

- a. adductor magnus
 - b. piriformis
 - c. gluteus maximus
 - d. iliopsoas
- ***D***

690. After initially preparing the patient for trapezius stretching, the doctor;

- a. moves the head only
 - b. moves the shoulder only
 - c. move the head and shoulder
 - d. pushes the superior angle of the scapula inferiorly
- ***C***

691. A patient presents with patellofemoral pain syndrome. What treatment should be recommended? (VMO was not a choice)

- a. stretch hamstrings
 - b. strengthen vastus lateralis
 - c. stretch tensor fascia lata
 - d. strengthen tensor fascia lata
- ***C***

692. What is the best case management for a patient with a positive Yergason's?

- a. immobilize with a cast
 - b. transverse friction massage
 - c. strengthen biceps femoris muscle
 - d. refer to neurosurgeon
- ***B***

693. Which of the following is indicated for initial management of a grade 3 inversion ankle sprain?

- a. compression wrap
 - b. elevation
 - c. ice
 - d. immobilization
- ***D***

694. A 28-year-old female presents with left-sided dull achy pain that radiates down the left arm to the thumb and index finger. She says she overexerted herself in the gym. The pain is worse with right cervical rotation and extension. What would be the appropriate course of treatment?

- a. refer for cardiac work-up
 - b. full spine x-rays
 - c. trapezius stretch and trigger point
 - d. scalenus stretch and trigger point
- ***D***

695. A young female presents to a chiropractic office for a second opinion, after seeing an orthopedic surgeon. The MD told her that she needed surgery to remove a disc fragment. At the present time, the patient has had all negative orthopedic and neurological tests. Assuming the current conditions, what would you suggest for the patient?

- cd. chiropractors should not give an opinion about surgery
 - ee. adjust the area with conservative chiropractic care
 - ff. let it resorb on its own
 - gg. refer for surgery, even though patient is asymptomatic at the time
- ***D***

696. What is the proper treatment for a child with Legg-Calvé-Perthes' disease?

- a. refer to hospital
 - b. complete non-weight bearing on involved side (with active ROM)
 - c. ultrasound and passive range of motion
 - d. immobilization of involved side
- ***B***

697. Patient presents with mild cauda equina syndrome. What is the most appropriate management?

- a. 24 hours rest, ice, elevation
 - b. refer to neurosurgeon for immediate evaluation
 - c. lumbo-sacral plain films and evaluate
 - d. adjust and monitor daily
- ***B***

698. A 20-year-old football player presents with low back pain that occurs after games. X-rays reveal a grade I L4 spondylolisthesis. There are no neurological complaints. What is your management of the patient?

- a. inform patient of findings, proceed with conservative care and encourage him to resume activity
 - b. recommend cessation of activity and re x-ray to observe healing process
 - c. refer out
 - d. recommend 2 month rest, then instruct gradual reactivity
- ***A***

699. In a patient with IVF encroachment on the left at C4-C5, which would be the most appropriate?

- a. continuous traction
 - b. intermittent traction
 - c. cervical break with left contact
 - d. cervical break with right contact
- ***B***

700. A 65-year-old female housekeeper presents with low back pain. She responds well to chiropractic care, but after one week she returns to the office complaining of dizziness, tinnitus and severe headache. She said the pain started yesterday afternoon. "I wanted to get adjusted yesterday, but I couldn't use the phone. It was a terrible, stressful day, but today I feel better." Her seated blood pressure is 180/100, pulse is 80 bpm. She feels good except for a sensitive spot on the top of her head. What is your recommended course of action?

- a. refer to her regular MD
 - b. refer to a hospital
 - c. adjust her cervicals
 - d. tell her to return tomorrow to re-evaluate
- ***B***

701. What is the most appropriate case management for a patient suffering from pain, swelling, paresthesia and vascular compromise after an acute tibial fracture (calf pain)?

- qqq. ice and elevate
 - rrr. immediate referral for decompression surgery
 - sss. massage to increase venous drainage
 - ttt. apply wrapping to decrease swelling
- ***B***

702. A patient presents with lower leg trauma. It is swollen, warm and has distended veins. What do you do?

- a. compression wraps
 - b. refer out
 - c. apply ice
- ***B***

703. The treatment least likely to be done with an acute Achilles tendinitis;

- a. heel lift
 - b. stretching Achilles tendon
 - c. ice massage
 - d. rest
- ***B***

704. A marathon runner has had an Achilles tendon tear, what would you recommend?

- a. calf exercises
 - b. swimming
 - c. immobilization
- ***C***

705. To increase lumbar lordosis, a patient would:

- a. strengthen quadriceps and stretch abdominals
 - b. strengthen abdominals and stretch quadriceps
 - c. strengthen gluteus maximus and stretch paraspinals
- ***A***

Bilateral SI joint on xray and pain in the Thoracic spine-ankylosing spondylosis

Where do you not adjust in Ank. Spond; ankylosed segments\

Carpenter with hypoesthesia in the first 2 digits: pronator teres, interosseus, cubital tunnel, carpal tunnel

A patient that had signs and symptoms of plantar fasciitis what to recommend; heel pad

706. Initial stretching of the superior trapezius the Doctor

- a. Doctor laterally flexes head
 - b. lateral flexion head and shoulder
 - c. lateral flexion shoulder
- ***A***

707. A 26 year old male, presents with fever, chills, electric shock-like pain when flexing head. Which study should be performed?

- a. CSF analysis
 - b. Doppler ultrasound
 - c. SPECT
 - d. diagnostic ultrasound
- ***A***

708. A 68 year old male with sudden onset of right side face paralysis, nausea, dizziness. Which do you do:

- a. take radiographs & adjust
 - b. call ambulance
 - c. give supplements
 - d. send for lab studies
- ***B***

709. A 65 obese male presents with intermittent abdominal cramping and low back pain, not diminished in recumbent position or night. He can't find comfortable position. Exam reveals reveals no apparent spinal problems with bilateral (+) straight leg raisers at 65°. Abdominal auscultation is relatively normal, and palpation is limited because of his obesity. What do you do next?

- a. bone scan
 - b. lower barium GI study
 - c. abdominal ultrasound
 - d. MRI
- ***A***

710. An 8 year old female is brought into your office by her father. She has been sick for 2 weeks now, but her right shoulder pain started the previous day. She has swelling and decreased range of motion at the glenohumeral joint. She also notes intermittent fever, vomiting and dizziness. The radiographic findings are inconclusive. What should the next step in her treatment plan be?

- a. refer to an orthopedist
 - b. traction and motion the joint
 - c. refer to the emergency room at the local hospital
 - d. immobilize and apply cryotherapy
- ***C***

711. An 18 year old female was in a recent car accident 8 days ago. She went to the emergency room had x-rays and MRI taken, but there was no evidence of pathology. She still has dizziness and pain, she has received no treatment. What would you do?

- a. adjust thoracic spine only till her symptoms decrease
 - b. refer to neurologist for co treatment
 - c. request films
- ***C***

712. Which of the following positions of the patient would be best to stretch tensor fascia lata?

- a. supine bring one knee the chest to 45° and hip at 45° to and drop the other leg off the table
 - b. inferior leg at 45° and back leg was off the table
 - c. prone
 - d. Side lying knee at 45° and drop leg off the table
- ***B***

713. What would you recommend when treating a computer operator with acute low back pain?

- a. alternating sitting and standing
 - b. heat 20 minutes before going to bed
 - c. laying down prone
- ***A***

714. A middle aged patient presents with acute chest pain and breathing problems. What study should be done first?

- a) MRI
 - b) echocardiogram
 - c) computerized tomography
 - d) electrocardiogram
- ***D***

715. What is the most common cause of thiamin deficiency in the United States?

- a. excessive carbohydrates
 - b. increased fat in diet
 - c. excessive protein
 - d. chronic alcoholism
- ***D***

716. Which of the following would ↑ serum phosphorus?

- a) soft drinks & processed foods
 - b) enriched foods
 - c) sugars
 - d) fatty foods
- ***A***

717. A deficiency of which vitamin may cause neural tube defect and is essential to take when pregnant?

- a. folic acid
 - b. vitamin B-1
 - c. vitamin B-6
 - d. niacin
- ***A***

718. In the healing stage of an acute muscle injury with edema?

- a. wheat germ, fish oils
 - b. Vitamin C, flavonoids
 - c. protein, amino acids, proteolytic enzymes
 - d. zinc, iron
- ***C***

719. A patient presents with dysfunction at the distal ulnar/radial joint is likely to present with lack of?

- A. ulnar deviation
 - B. pronation
 - C. wrist flexion
 - D. wrist extension
- ***A***

720. The patient can't extend the wrist, the problem is located at which area?

- a. metacarpal
 - b. midcarpal
 - c. radiocarpal
 - d. radioulnar
- ***C***

721. To correct a restricted extension fixation at the humeroulnar joint, your contact point is:

- a. radial head
 - b. medial epicondyle
 - c. coronoid
 - d. olecranon
- ***D***

722. Which of the following patient positions is least favorable when adjusting a thoracic vertebra that is fixed in extension?

- a. prone
 - b. supine
 - c. standing
 - d. side-lying
- ***D***

723. Which of the following would a upper cervical adjustment be contraindicated?

- a. DISH
 - b. rheumatoid arthritis
 - c. degenerative osteoarthritis
 - d. SLE
- ***B***

724. A patient presents with Down's syndrome. Which x-ray should be taken before manipulation?

- a. cervical flexion/extension
- ***A***

725. Which of the following is NOT indicated for spinal manipulation?

- a) Sprain/ strain
 - b) neuralgia
 - c) segmental instability
 - d) subluxation
- ***C***

726. In the cervical and upper thoracic region. The spinous processes move in which direction on rotation and lateral flexion?
 a. toward the concavity
 b. toward the convexity
 c. posterior
 d. anterior
 B

727. What is at level of scapular spine?
 a. T1
 b. T2
 c. T3
 d. T5/T6
 C

728. Where is the cricoid first ring found with the patient seated?
 a. C1
 b. C2
 c. C4
 d. C6
 D

729. With the patient seated, the hyoid bone is located at which vertebral level:
 f. C-1
 g. C-3
 h. C-5
 i. C-7
 B

730. 50% of rotation of cervical spine occurs most at which vertebral level?
 a. C0-C1
 b. C1-C2
 c. C4-C5
 d. C6-C7
 B

731. The plical system is indicated
 a. foot
 b. ankle
 c. knee
 d. wrist
 C

732. What would be seen in this area?



a. scaphoid fracture
 b. Lister's tubercle
 c. Kienböck's
 A

733. The superior oblique muscle of the eye controls what kind of eye movement?
 a. down and out
 b. down and in
 c. up and out
 d. up and in
 B

734. A facet in the frontal plane has motion in which direction?
 a. flexion
 b. rotation
 c. extension
 d. lateral flexion
 B & D

735. The guaiac test would be used for (in stool sample):
 a. gastrointestinal bleeding
 b. malabsorption syndrome
 c. AIDS
 A

736. Increased serum blood calcium is seen in:
 a. multiple myeloma
 b. Hypoparathyroidism
 c. Osteoporosis
 d. Vitamin D Deficiency
 A

737. A person who acclimates to higher altitude environment will have what blood changes?
 a. polycythemia vera
 b. hemolytic anemia
 c. sustained acidosis
 d. increased hematocrit
 D

738. What does the last stage of ice massage cause the skin?
 a. coldness
 b. burning
 c. achiness
 d. numbness
 D

739. A cockup splint is used for:
 a. elbow
 b. wrist
 c. knee
 d. hip
 B

740. A 16 year old female has trauma to knee. 24 hours later knee is red and tender She states she feels fine. What is least appropriate?
 a) ice
 b) bandage
 c) elevation
 d) joint aspiration
 D

741. Which type of exercise causes the muscle to lengthen?
 a) isotonic
 b) eccentric
 c) concentric
 d) isometric
 B

742. Pain upon active motion, pain during isometric contraction.
 a. strain of muscle
 b. sprain
 c. facet arthrosis
 A

743. Which of the following would produce pain with a strain injury but not with a sprain injury?
 a. distraction
 b. active motion
 c. isometric contraction
 d. isokinetic flexion/extension
 C

744. Which type of exercise would you use early in the rehabilitation of an acute joint injury to prevent further joint irritation?
 A. isotonic
 B. aerobic
 C. plyometric
 D. isometric
 D

745. Spastic shortening of postural muscles results in _____ motion and neurogenic _____.
 a. increase, facilitation
 b. decrease, facilitation
 c. increase, inhibition
 d. decrease, inhibition
 B

746. A patient presents with a decubitus ulcer on his right leg. Which modality is contraindicated?
 a. SW diathermy
 b. Paraffin bath
 c. ultrasound
 d. Hydrotherapy
 B

747. Frenkel's exercises-what are they?
 a) cerebral palsy?

748. With chronic lumbar sprain strain what settings would be used for ultrasound?
 a) Pulsed 4-6 minutes
 b) Continuous 4-6 minutes
 c) Pulsed 8-10 minutes
 d) Continuous 8-10 minutes - high
 D

749. Which is contraindicated for peripheral edema?
 a. cold
 b. short wave diathermy
 c. pulse ultra sound
 d. interferential
 B

750. A construction worker with flank pain. Which question would be most relevant?
 A. do you wear lumbar belt
 B. recent history of urinary or bowel incontinence
 C. how long have you been working construction
 D. have you had a recent change of diet
 B

751. A young boy presents with fever, dyspnea, hemoptysis and night sweats. His father had similar symptoms 6 months ago. He is from a low socioeconomic area;
 A. tuberculosis
 B. emphysema
 C. pneumonia
 D. chronic bronchitis
 A

752. Guy with hypertension obese history of angina. What Q would lead to suspect -family history of heart disease

753. A male smoker, with a sedentary lifestyle presents with increased cholesterol which of the following history would be the greatest risk?
 A. Mother with diabetes
 B. Alcoholic father
 C. Father had myocardial infarction
 C

754. A middle aged female reports feeling fatigue all the time, has diffuse pain all over, general stiffness especially in the morning, Irritable bowel syndrome, paresthesia, occasional tension headache. What question would help provide a diagnosis?
 a. Do you have trigger points in your muscles?
 b. Do you have a family history of RA?
 c. Do you have a family history of osteoarthritis?
 d. How long does the stiffness lasts?
 A

755. A patient presents tired and has a hard getting up in the morning. He has aching pain throughout the body but can't really pinpoint area. What findings might you find?
 a. trigger points
 b. flaccid muscles
 c. taut muscles
 A

756. A 63 year old walks for 4 blocks and has to stop because of occasional pain in right buttock. With a diagnosis of lateral stenosis, what would he answer "yes" to:
 a. Does the pain increase with flexion?
 b. Does the pain decrease with extension?
 c. Does the pain increase with right rotation?
 d. Does it exacerbate when leaning to right?
 D

757. ↑ amylase answer Acute Pancreatitis you will see? ~ Increase amylase and lipase.

758. A 10 year boy with lurching gait and hip pain that radiates to groin and thigh?
 a. neoplasia
 e. slipped femoral capital epiphysis
