

1. The azygous fissure appears as a normal radiographic variant found in which part of the lung?
 A. left upper apex
 B. right upper apex
 C. right middle lobe
 D. right lung base
 B
2. In rheumatic arthropathies, the lateral flexion/extension views are taken to check which ligament which is the strongest:
 A. transverse ligament
 B. alar ligament
 C. apical ligament
 D. tectorial
 A
3. What is the cause of an x-ray having a greasy appearance?
 A. insufficient washing
 B. problem with the (old) fixer
 C. washing with warm water
 D. low quality emulsion problem
 A
4. What component of x-ray equipment is primarily used to prevent film fog?
 A. radiographic grid
 B. half-wave rectifier
 C. line voltage compensator
 D. collimator and filters
 A
5. What is eburation?
 A. the process of bone hardening to almost ivory like
 A
6. Which of the following imaging methods use the interaction of radio waves with hydrogen nuclei or protons;
 A. CT
 B. x-ray
 C. MRI
 D. scintigraphy
 C
7. An x-ray taken with a 15° cephalad tilt through the sagittal plane between the ASIS and the symphysis pubis is used to view;
 A. oblique S1
 B. PA sacral foramen
 C. AP sacrum coccygeal region
 D. lateral sacrum and surrounding structures
 B
8. In taking an A-P lumbo-pelvic view, both feet are internally rotated 15° "toes in". Why?
 A. to reduce femoral anteversion
 B. to visualize the greater trochanter
 C. minimize patient motion/ sway
 D. compensate for pelvic obliquity
 E. reduce pelvic distortion
 A
9. An increased teardrop distance on a radiograph would be most likely caused by which of the following?
 A. protrusio acetabular
 B. slipped femoral capital epiphysis
 C. diastasis of the symphysis pubis
 D. Legg-Calvé-Perthes
 D
10. The most common cause of spondylolisthesis in patients under 40 years of age is:
 A. congenital
 B. repetitive microtrauma
 C. massive trauma
 B
11. During which part of the physical examination would a bleb be noticed?
 A. bony palpation
 B. auscultation
 C. inspection
 D. x-ray
 C
12. An old patient has a compression fracture. Which is least likely to occur as a sequela?
 A. compression gets worse
 B. bone expansion
 C. spurring
 D. premature fusion of segments
 B
13. Which is not present on an x-ray of a patient with chronic emphysema?
 A. prominent retrosternal air space
 B. high or increased right diaphragm level on lateral radiograph
 C. enlarged pulmonary artery
 D. increased radiolucency of lungs
 B
14. What may cause scalloping of the posterior margins of the body?
 A. fibrous dysplasia
 B. Paget's
 C. Hodgkin's
 D. von Recklinghausen's/ neurofibromatosis
 D
15. The following tumor develops in the lung apex, causes lytic destruction of a rib and may be associated with Horner's syndrome
 A. azygous
 C. Pancoast
 C
16. Which bone disease has Schmorl's nodes?
 A. Hodgkin's
 B. osteoarthritis
 C. rheumatoid arthritis
 B
17. A patient with a sacral base angle of 75° is predisposed to:
 A. spondylolisthesis
 B. tight hamstrings
 C. ilium listing of posterior and inferior
 D. hypolordosis
 A
18. When measuring from the posterior mid-vertebral body of C5 to the spino-laminar junction of the same segment, canal stenosis will occur when the measurement is less than;
 A. 8 mm
 B. 12 mm
 C. 17 mm
 D. 21 mm
 B
19. A child presents with ankle injury. On x-ray there is an increase in the tibio-fibular space but no fracture. What do you do next?
 A. MRI
 B. weight bearing x-ray
 C. bone scan
 D. linear tomography
 C
20. An average 150 pound male will burn how many calories after walking one mile?
 A. 50
 B. 100
 C. 200
 D. 400
 A
21. When treating a 30 year old obese male who wants to lose weight, what is the best way to change the set point for long term effect?
 A. psychological counseling
 B. reduce to 1000 calorie a day intake
 C. 3 day water fast then lower caloric intake
 D. aerobic exercise
 D
22. Best to maintain long term weight loss:
 A. decreased protein, decreased carbohydrate, decreased fat
 B. decreased protein, increased carbohydrate, decreased fat
 C. increased protein, increased carbohydrate, decreased fat
 D. increased protein, decreased carbohydrate, decreased fat
 B
23. A patient presenting with glossitis, cheilosis, diarrhea, weight loss, flatulence shows signs of what deficiency?
 A. vitamin A
 B. vitamin C
 C. folic acid
 D. potassium
 C
24. A male patient complains of headaches which begin immediately upon standing, and does not go away with time until he lies down again. What type is it?
 A. sinus
 B. migraine
 C. increased intracranial pressure
 D. cluster
 C
25. What type of headache will climbing stairs and walking increase the pain?
 A. migraine
 B. tension
 C. cervicogenic
 D. cluster
 A
26. A young girl gets a headache at 10:00 A.M. after going to school, and subsides after a few hours. What type of headache is it;
 A. tension
 B. hypoglycemic
 C. migraine
 D. cluster
 B
27. A male presents with a headache behind his right eye. His right eyelid droops and is still affected 2-3 hours after the headache?
 A. cluster
 B. classic migraine
 C. ophthalmatologic migraine
 D. tension
 C
28. While taking a history, you ask about the patient's hobbies. What should this information not be used for?
 A. developing doctor/patient rapport
 B. goal setting
 C. to determine the injury status
 D. to determine the patients mental status
 C
29. Which question would you ask a 29 year old who develops dyspnea when climbing stairs?
 A. do you get shortness of breath when climbing stairs
 B. how steep are the stairs
 C. are the stairs high
 D. how many stairs till you had to stop and rest
 E. do you exercise?
 D
30. A 30 year old woman presents with constant pain in the right hand, which has become worse over the past 3 months. Nothing makes it better or worse.
 A. she sits on the dorsal surface of her hands
 B. she sleeps with her hand under her pillow
 C. she takes 1/2 aspirin a day
 D. she stands for 1 hours a day
 B
31. A male patient complains of right arm weakness and tingling of two weeks duration. What would not be an important history finding in diagnosing the etiology of his condition?
 A. always sleeps on his right side
 B. lifts weights everyday
 C. slipped and fell on an outstretched arm one week ago
 D. job required overhead work
 C
32. A 28 year old male reports 24 hours after noticing he voided a red/purplish urine. Which question would be most valuable for determining the etiology?
 A. Ask about recent sexual history
 B. Ask about recent food and drinks
 C. Ask about family history of diabetes
 D. Ask about a history of bladder infections
 B
33. Which of the following is a sign of a person who is depressed;
 A. woke up frequently at night
 B. slept well woke up early in morning
 C. having frequent naps during the day
 D. had trouble going to sleep and waking up
 E. easily falls a sleep at night and easily wakes up
 D
34. Which of the following is least effective in taking a case history?
 A. asking in a understandable way to the patient
 B. asking multiple questions at once
 B

35. Which vital sign is considered to be abnormal in an infant?
 A. 40 breaths per minute
 B. pulse of 110 BPM
 C. blood pressure of 120/80
 D. 99.4° F temperature
*****C*****
36. In a healthy patient, broncho-vesicular sounds will be heard best at:
 A. at the level of T4 spinous process
 B. at the level of the xiphoid process
 C. supraclavicular fossa
 D. at the level of the 6th intercostal space on anterior chest wall
*****D*****
37. The best measure of lung function;
 A. forced expiratory volume/reserve
 B. tidal volume
 C. forced inspiratory reserve
 D. vital capacity (forced)
*****D*****
38. The diaphragm of the stethoscope can be used to evaluate:
 A. lungs
 B. carotid artery bruit
 C. blood pressure
 D. abdominal bruit
*****A*****
39. What high pitched sound is heard during systole or diastole?
 A. click
 B. rales or rhonchi
 C. diastolic murmur
 D. systolic murmur
*****B*****
40. What will cause decreased jugular venous pressure?
 A. decreased cardiac output
 B. increased intrapleural pressure
*****A*****
41. Doctor places a tuning fork on patient's mastoid. When the patient stopped hearing he moved it to the front of the ear canal until patient can't hear it anymore. What test is the doctor performing?
 A. Rinne's
 B. Weber's
 C. Romberg's
*****A*****
42. A boy presents with an increased A-P chest diameter and his chest was pointed out like the of of a ship. What did he have?
 A. pectus carinatum
 B. pectus excavatum
 C. barrel chest
*****A*****
43. Which modality may be used on a patient with an UMNL with spasticity?
 A. cryotherapy
 B. vibration therapy
 C. ultraviolet irradiation
 D. infrared
*****A*****
44. What is not a purpose of Williams exercises?
 A. to decrease spondylolisthesis
 B. strengthen abdominals
 C. decrease lumbar lordosis
 D. stretch lumbar para spinals
*****D*****
45. What would necessitate preliminary concern before the application of therapeutic ice?
 A. superficial nerve
 B. muscle injury
 C. tenosynovitis (inflammation of tendon sheath)
 D. edema
*****A*****
46. Which of the following is contraindicated for the use of cold therapy?
 A. muscle contusion
 B. acute inflammatory bursitis
 C. compromised local circulation
 D. heat exhaustion
*****C*****
47. What would be contraindicated for the application of superficial heat?
 A. thrombophlebitis
 B. deep vein thrombosis
 C. high blood pressure
*****A*****
48. What is Phalen's test for?
 A. tarsal tunnel syndrome
 B. carpal tunnel syndrome
 C. thoracic outlet syndrome
 D. stenosing tenosynovitis
*****B*****
49. Mannkopf's test is negative if the radial pulse rate increases by less than:
 A. 10 beats/minute
 B. 20 beats/minute
 C. 30 beats/minute
 D. 40 beats/minute
*****A*****
50. A person has an ankle sprain with slight mechanical instability. What grade is it?
 A. I
 B. II
 C. III
 D. IV
*****B*****
51. A 16 year old female injures her knee while playing volleyball. There is immediate swelling, but she was able to walk off the court unassisted. The cause of the swelling is _____ and your management is _____.
 A. bloody accumulation within the joint; elevation and ice
 B. bloody accumulation within the joint; orthopedic consult
 C. synovial accumulation in the joint; orthopedic consult
 D. synovial accumulation in the joint; elevation and ice.
*****A*****
52. Rupture of what ligament results in the greatest knee instability?
 A. anterior cruciate
 B. posterior cruciate
 C. medial collateral
 D. lateral collateral
*****A*****
53. The exercise known as "circumduction and extension" of the leg is best used to reduce:
 A. lateral rotation malposition of tibia
 B. reduce chronic fixed knee
 C. reduce a laterally fixed knee
 D. reduce a medially fixed knee
*****B*****
54. What is normal position of foot?
 A. 5° eversion
 B. 8° plantar flexion and 3° inversion
 C. dorsiflexion and 8° eversion
 D. 15° toe out
*****B*****
55. Which disc is the most commonly herniated?
 A. C4-C5
 B. C5-C6
 C. L3-L4
 D. L5-S1
*****D*****
56. Which is a specific test for scalenus anticus?
 A. Adson's
 B. Wright's hyperabduction
 C. Eden's costoclavicular
 D. Allen's
*****A*****
57. Which of the following is the least likely to cause thoracic outlet syndrome?
 A. cervical spondylosis
 B. scalenus anticus
 C. costoclavicular syndrome
 D. hyperabduction compression
*****A*****
58. Which position is best for a patient with central canal stenosis?
 A. seated
 B. prone
 C. flexed
 D. extended
*****A*****
59. Patient presents with dizziness. What is the first step in the management of this patient?
 A. Weber
 B. Barany cold caloric
 C. Romberg
 D. Whispering voice
*****C*****
60. Which of the following is suggested if Bakody's test is positive:
 A. cervical nerve root compression
 B. thoracic outlet syndrome
 C. sacral neuritis
 D. lumbosacral lesion
 E. meningitis
*****A*****
61. The most common cause of carpal tunnel syndrome is?
 A. C6-7 radiculopathy
 B. nonspecific tenosynovitis
 C. reflex dystrophy syndrome
 D. lunate subluxation
*****B*****
62. Which test is used to differentiate between ligamentous and capsular dysfunction?
 A. Apley's
 B. Drawers
 C. patellar tap
 D. Screw home
*****A*****
63. How short of time will it take if a normal joint is immobilized to have a measurable difference in size or demonstrable degenerative changes?
 A. 1 week
 B. 6 weeks
 C. 1 month
 D. 2-3 months
*****A*****
64. Pressure applied on the pisiform is test for which reflex?
 A. Chaddock's
 B. Gordon's
 C. Gonda's
 E. Allen's
*****B*****
65. Muscular adhesions producing altered joint function is motion palpated in what zone of motion?
 A. active
 B. passive
 C. end range
*****A*****
66. Ligament fixation is found with motion palpation in what zone of motion?
 A. active
 B. passive
 C. end play
 D. joint play
*****B*****
67. A 58 year old male presents with se-vere shoulder pain after pruning trees for two days. The best treatment for this person is:
 A. rest for 4 weeks
 B. ice and active range of motion exercises
 C. rest for 2 weeks while doing concurrent PT and passive range of motion exercise
*****C*****
68. A person has leg pain that is worse with activity and that is immediately relieved by rest. Which would you not do?
 A. apply heat to leg
 B. make postural changes
 C. have patient lose weight and adjust him
 D. apply ice and do lumbar roll adjustments
*****A*****
69. A woman presents with low back pain and a BP of 210/180. Upon performing Naffiger's test the patient notes pain over L4 area but shortly after the test she got dizzy and confused. What would you do with this patient?
 A. recline the patient and call an ambulance
 B. adjust
 C. refer to a cardiologist
 D. tell the patient vertigo is normal following this test
 E. avoid adjusting the cervicals
*****A*****
70. Female presents with pain in her midfoot between her 2nd and 3rd metatarsals. It is worse with weight bearing. Pain can be reproduced with dorsiflexion and by applying pressure or "squeezing" the metatarsals together. What are your recommendations?
 A. heel lift
 B. refer to orthopedist/surgeon
 C. recommend larger, wider shoes and apply metatarsal head pad
 D. ice and adjust
*****C*****
71. A patient has been diagnosed with shoulder hand syndrome. What is contraindicated for a person with shoulder hand syndrome?
 A. elevate arm and flex and extend wrist
 B. referral for anesthetic injection into stellate ganglion
 C. deep shoulder massage and ice
 d. hand and wrist mobilization
*****C*****

72. Most common reason chiropractors get sued?
 A. rib fracture
 B. aggravating a disc condition
 C. neoplasm
 D. fracture of the posterior vertebral body
*****A*****
73. 62 year old male who fell skiing. He has mid dorsal pain. X-ray findings reveal no bone fracture or pathologies. After 2 weeks of chiropractic adjustments his pain does not improve. What is the next step?
 A. send out for bone scan
*****A*****
74. Patient had lumbosacral fixation, negative straight leg raise. After an adjustment the fixation was better but straight leg raise produced pain. What does this mean?
 A. exacerbation of condition
 B. you performed test correctly
 C. you had incorrect findings originally
 D. PT needs to be done on leg
*****A*****
75. A 25 year old male presents with a painful tight red swollen right knee. Physical exam reveal erythematous swollen knee, radiographic analysis shows increased joint space. What should be done next?
 A. joint aspiration
 B. arthroscopy
 C. trial manipulation (adjustment)
 D. motion palpation
 E. CBC
 F. ice and rest
*****A*****
76. The use of a cane in the opposite hand from the osteoarthritis hip is to:
 A. decrease weight bearing to the joint
 B. decrease force of hip abductors on the involved side
 C. to decrease muscle contraction of the gluteus maximus of involved hip
 D. to prevent lateral sway over the involved hip
 E. muscle contractions of hip flexors (of the opposite side)
*****A*****
77. To restore ulnar deviation to the normal wrist joint an adjustive force would have to directly affect which joint?
 A. radio-ulnar
 B. middle carpals
 C. ulnocaphoid
 D. ulnomeniscotriquetral
*****D*****
78. What articulation moves on wrist extension?
 A. mid carpal
 B. radio ulnar
 C. radio carpal
 D. ulnomenisco triquetral
*****B*****
79. A 15 year old boy is brought into your office with an increased thoracic kyphosis presents with thoracic pain. On x-ray you note a decreased anterior vertebral body height with Schmorl's nodes at T6, T7, T8, and T9. What would be your management plan?
 A. ice and adjust thoracic spine
 B. bed rest and tens to the paraspinal muscles
 C. refer for orthopedic bracing
 D. bed rest for 2 weeks
 E. exercise and nutrition
*****A*****
80. A patient complains of recurrent right ankle sprains. Upon motion palpation, there is decreased eversion and dorsiflexion. There is tenderness to palpation at the anterior talofibular joint and at the distal and inferior point of the lateral malleolus. To correct this condition an adjustive thrust would best be described as:
 A. Axial traction until there was an audible click heard
 B. Adjust the talus from A-P, and the calcaneus from lateral-medial in relation to the distal tibia
 C. Adjust the talus from medial to lateral and the calcaneus from A-P
 D. Adjust the tibia from anterior to posterior and the posterior fibula
*****C*****
81. What is the maximum inferiorward translation the caudal portion of the flexion traction table should be allowed to travel after there has been tension attained in the lumbar spine?
 A. 2"
 B. 3"
 C. 4"
 D. 5"
*****A*****
82. A right thoracic spine scoliosis is pre-sent with the spinouses rotated into the con-cavity. To correctly perform a double trans-verse adjustment of a right posterior with T7:
 A. contact the left spinous
 B. use a right hand contact
 C. use a pisiform contact on the spinous
 D. use a left hand contact
 E. his or her left pisiform contact
*****B*****
83. 63 year old male presents with headaches and dizziness. His wife states he gives a blank stare for one second when asked questions. What should be done with this patient?
 A. exercise program
 B. MRI
 C. full spine x-rays
 D. exam and manipulate
*****B*****
84. Which is a movement that occurs in the coronal plane around the sagittal axis?
 A. wrist flexion and extension
 B. wrist internal/external rotation
 C. hip abduction/adduction
 D. foot dorsiflexion/plantar flexion
*****C*****
85. The primary muscle responsible for rotation of the cervicals
 A. SCM
 B. scalenus anticus
 C. trapezius
 D. splenius capitus
*****A*****
86. Which is an indicator of tissue destruction and inflammation?
 A. C reactive protein
 B. Bradykinin
 C. substance P
 D. alkaline phosphatase
 E. interleukin 2
*****A*****
87. Which is the best way to diagnose lymphogranuloma venereum?
 A. Mantoux test
 B. observation
 C. Frei test
 D. VDRL
*****C*****
88. What test to confirm primary syphilis?
 A. dark field microscope
 B. Dick
 C. VDRL
 D. Coombs
*****A*****
89. When a patient is asked to bring the tip of thumb to the tip of the little finger, he is testing which nerve?
 A. radial
 B. ulnar
 C. median
 D. musculocutaneous
*****C*****
90. Person presents with numbness of the fingertips and paresthesia on the palmar surface lateral 1/3 of hand. What nerve is involved?
 A. median
 B. radial
 C. ulnar
 D. musculocutaneous
*****A*****
91. A lesion to which single nerve would be responsible for weakened shoulder abduction and external rotation?
 A. long thoracic
 B. axillary
 C. dorsal scapular
 D. anterior thoracic
*****B*****
92. In which dermatome is found in the lateral forearm?
 A. C5
 B. C6
 C. C8
 D. T1
*****B*****
93. Innervation to the axillary area is via which nerve?
 A. T1
 B. C7
 C. T4
 D. T2
*****D*****
94. A patient presents with weakness of external rotation and abduction of his shoulder. Which disc level is involved?
 A. C3-4
 B. C4-5
 C. C5-6
 D. C6-7
*****B*****
95. A patient presents with posterior neck numbness with pain radiating down the levator scapula and occasionally to the pectoralis major. What disc level is indicative of this condition?
 A. C2-C3
 B. C3-C4
 C. C4-C5
 D. C5-C6
*****B*****
96. T4 syndrome is characterized by?
 A. Cape like distribution
 B. (?across nipple line?)
*****B*****
97. Which is a demyelinating disorder?
 A. MS
 B.
 C. myasthenia gravis
*****A*****
98. What disease affects the anterior horn of the spinal cord?
 A. MS
 B. myasthenia gravis
 C. tabes dorsalis
 D. poliomyelitis
 E. ALS
*****D*****
99. Which of the following is a UMNL?
 A. brain tumor
 B. myasthenia gravis
 C. poliomyelitis
 D. cerebral palsy
*****D*****
100. Vertical nystagmus seen in:
 A. brain stem
 B. cerebellum
 C. cerebrum hemisphere
 D. corpus collosum
*****A*****
101. Intermittent sharp shooting pain with paresthesia suggests;
 A. muscle strain
 B. neuralgia
 C. muscle spasm
 D. metastatic carcinoma
*****B*****
102. An obese 14 year old male presents with pain on walking and with legs turned out in external rotation. What is the diagnosis?
 A. slipped capital femoral epiphysis
 B. transient synovitis
 C. Legg-Calvé-Perthes
 D. Pellegrini-Stieda disease
*****A*****
103. A 50 year old female with headaches, visual problems and red, painful eyes, nausea and vomiting. She is extremely exhausted. Palpation of the eye with the lid closed reveals a smooth surface that is firm and would not indent with pressure. If left untreated, a future consequence would be:
 A. cataracts
 B. blindness
 C. exophthalmos
 D. stroke
*****B*****
104. A 12 year old child presents with neck pain and headaches. On exam you notice a hematoma over the quadratus lumborum but he denies pain or trauma to this area. What do you do?
 A. adjust the cervical area of complaint
 B. immediately report possible child abuse
 C. take a radionuclide bone scan
 D. pin wheel check over area
*****B*****

105. In a patient with acute tracheobronchitis, how long does the cough last have a cough?
 A. 1-3 weeks
 B. 3-6 weeks
 C. 6-9 weeks
 D. 9-12 weeks
 A
106. How would you distinguish between congenital and pathological clubbing of the fingers?
 A. compare long axis with short axis of involved nails
 B. check for splinter hemorrhages
 C. press on fingers and look for blanching
 D. press on fingers and feel for boggy under the nail bed
 E. feel for longitudinal ridges
 D
107. Patient presents with clubbing of the digits, arthritis, periostitis, hypertrophic arthropathy suggests,
 A. bronchogenic carcinoma
 B. gout
 C. multiple myeloma
 D. fibrosarcoma
 A
108. Which is not typical of testicular masses?
 A. most are benign
 B. most are malignant
 C. most are found on males ages 15-30
 D. usually non-tender masses attached to the testes
 A
109. White curdy exudate on tongue and the inside of his mouth that is easily removed with scraping with a Q-tip. The tongue is red underneath.
 A. candidiasis
 A
110. A patient presents with eye pain that is increased with movement of the eye. Evaluation reveals reduced vision in the eye. Ophthalmic examination indicates an optic disc that is elevated with blurred edges. The likely diagnosis is;
 B. papilledema
 C. papillitis
 D. retrobulbar optic atrophy of Leber
 C
111. A man has very "scary" retrosternal pain during and for ten minutes after climbing a flight of stairs. You can rule out
 A. myocardial infarct
 B. angina pectoris
 C. cholecystitis
 D. peptic ulcer
 C
112. A 34 year old female complains of diarrhea. She notes her stool has been large, light gray colored stools, frothy, foul smelling, greasy. This may be due to:
 A. malabsorption
 B. over hydration
 C. irritable bowel syndrome
 D. paralytic ileus
 A
113. 14 year old boy presents with a "pinching" sensation in the right inguinal region. There is a sausage-like mass on palpation that disappears into the abdomen. What is the most likely worse complication?
 A. ischemic necrosis
 B. systemic infection
 C. appendicitis
 D. internal hemorrhage
 A
114. A 4 year old child presents with his right arm in a sling. The child holds the humerus flexed against his body with the forearm is pronated. During the history the child says that his dad was swinging him by his arms just prior. What is the likely diagnosis?
 A. dislocated radial head
 B. Salter-Harris IV of distal humerus
 C. forus fracture of distal radius
 D. rupture of the supraspinatus muscle
 A
115. Which of the following skin variations will be seen in a Caucasian male with Addison's disease?
 A. yellow
 B. red
 C. brown
 D. blue
 B. reddish blue
 C
116. Which of the following does NOT occur in the area between the P wave and the QRS complex?
 A. atrial contraction
 B. ventricular filling
 C. ventricular contraction
 D. transmission of electrical fibers along Purkinje fibers
 C
117. A 42 year old male is awakened at 2 AM with chills, shivers, and pain in big toe. The bed sheets irritate the pain. What does he have?
 A. gout
 B. SLE
 C. AS
 D. pseudoarthrosis
 A
118. Patient has shoulder pain and atrophy of infraspinatus and supraspinatus muscles. Passive range of motion elicits no pain. This suggests;
 A. thoracic outlet syndrome
 B. rotator cuff tear
 C. frozen shoulder
 D. acromion clavicular separation/dislocation
 B
119. Which of the following has the poorest prognosis and is a "red flag" indicator of possible metastatic bone cancer?
 A. sudden onset
 B. superficial location
 C. worse at night
 D. worse in the morning
 C
120. A 30 year old multiparous female presents with nausea, vomiting, fleeting RLQ pain and a 2 day history of vaginal bleeding. She has not had her menstrual period in last ten weeks. She has a history of Pelvic inflammatory disease 5 years ago and has used an IUD for the last two years. Examination reveals engorged breasts and hyperchromic areola. There is a palpable, freely movable adnexal mass in the RLQ which is 3 cm in diameter and sausage shaped. Soft cyanotic cervix. CBC reveals neutrophilic leukocytosis with a shift to left. Urine HCG is negative. What is the most likely working diagnosis?
 A. uterine leiomyomata
 B. uterine adenocarcinoma
 C. tubal pregnancy
 D. acute appendicitis
 C
121. What diagnostic procedure would be the most appropriate to find etiology of symptoms?
 A. culture vaginal discharge
 B. barium enema
 C. abdominal ultrasonography
 D. pap smear of cervix
 C
122. If two days later the patient presents with pain, sudden anemia, increased reticulocytes, peri-umbilical cyanosis and a swelling in the retrouterine pouch. What's diagnosis?
 A. pelvic inflammatory disease
 B. endometriosis
 C. ruptured ectopic pregnancy
 D. torsioned ovarian cyst
 C
123. An 18 year old male has vague pain, swelling and joint locking of left knee. He presents with the leg in external rotation. There is no history of trauma. This is probably due to:
 A. biceps femoris tendonitis torn biceps tendon
 B. lateral meniscus tear
 C. iliotibial band friction syndrome contraction of iliotibial band
 D. popliteal tenosynovitis
 B
124. What diagnostic tests would be utilized to distinguish Crohn's disease and ulcerative colitis without using symptoms?
 A. HLAB-27
 B. check stool for ova and parasites
 C. sigmoidoscopy and air contrast barium
 D. ESR, and Schilling test
 C
125. A black lesion on the skin characterized by a rough surface, rough edge contour, irregular border and raised uneven surface is:
 A. squamous cell
 B. basal cell
 C. melanoma
 D. cafe au lait spots
 C
126. Increased heart rate of 100 beats per minute with normal rhythm:
 A. sinus bradycardia
 B. sinus tachycardia
 C. atrial fibrillation
 D. bundle branch block
 B
127. Patient presents with RUQ pain, hepatomegaly, lower extremity, pitting edema. He is tired and has a fever;
 A. hepatitis
 B. coronary diagnosis
 C. refer to internist
 ?
128. A 24 year old female back from a recent vacation to the northeast is convinced she has Lyme's disease. Which of the following is not a presentation of Lyme disease?
 A. enteric fever
 B. cardiac dysfunction
 C. neuritis
 D. arthralgia
 A
129. Patient supine hand flexed to chest with shock like sensation down spine and feet. Car accident stiff neck and decreased ROM. Pain in legs. Came in a few weeks later pain aggravated on neck flexion.
 A. spinal cord rupture
 B. MS
 C. posterolateral disc lesion
 D. lateral canal stenosis
 B
130. A patient presents with wheezing respiration. Subsequent examination reveals diffuse sibilant rales. Chiropractic management of the patient abolished the wheezing respiration, but the rales were still unremitted. The patient's condition indicates:
 A. fluid in the bronchial tree
 B. consolidation of the lungs
 C. diffuse bronchospasm
 D. diffuse bronchodilatation
 A
131. A 57 year old male smoker presents with a chief complaint of swelling of the right calf. He was able to fully flex forward with no pain. What is the most likely explanation?
 A. deep vein thrombosis
 B. thromboangiitis
 C. saphenous nerve entrapment
 A
132. A 46 year old male presents with leg paralysis which began as foot paralysis then leg paralysis then hip paralysis. He received vaccination for a flu two weeks ago and is otherwise healthy. What is the diagnosis?
 A. Guillain Barre syndrome
 B. stroke
 C. Adam-Stokes
 D. asthenia
 A
133. A male patient presents to your office with multiple bruises and hematomas. He reports that it takes only minor trauma to cause a bruise. What problem would you expect to find?
 A. Insufficient clotting factor
 B. decreased platelets
 C. muscle problem
 D. neurological problem
 B
134. A 24 year old male patient presents with knee pain and on x-ray examination there is noted erosion of the opposing surfaces of the tibia and the femur's joint surfaces. What history finding would indicate a possible etiology?
 A. recent arthroscopic surgery
 A
135. A small round, mobile, tender nodule in the breast?
 A.
 B. cyst
 C. fibroadenoma
 D. carcinoma
 B
136. Which is not indicative of breast carcinoma?
 A. inverted nipple
 B. firm, non-tender fixed mass
 C. mobile tender mass
 D. dimpling of skin
 C

137. The sudden onset of diplopia is indicative of?
 A. neurogenic disease
 B. vascular disease
 C. ocular disease
 D. cardiac distress
*****B*****

138. What is characterized by pain that lasts 1-2 hours?
 A. ulcer
 B. tumor
 C. disc
 D. angina
*****A*****

140. A woman complains of discomfort, but no pain, legs feel rubbery and she feels like falling down. Feels like her legs are bandaged up.
 A. myasthenia gravis
 B. spinal canal stenosis
 C. MS
 D. psychogenic disorder
*****D*****

141. Patient presents with large, circumscribed silver, scaly patches over his back and buttocks.
 A. herpes zoster
 B. herpes simplex
 C. basal cell carcinoma
 D. psoriasis
*****D*****

142. A 65 year old male patient with cold feet, and bilateral leg pain of insidious onset. While riding a bike almost immediately relieved with rest.
 A. neurogenic referred pain
 B. vascular claudication
 C. lateral canal stenosis
*****B*****

143. A 32 year old male complains of colicky, abdominal cramping. Three months ago he was treated for anxiety. Choose the most likely cause of his pain?
 A. acute pancreatitis
 B. peristaltic dysfunction
 C. cholecystitis
 D. colic
*****B*****

144. What is the initial indication of a bacterial pneumonia?
 A. fever
 B. hypotension
 C. hypothyroidism
 D. bradycardia
*****A*****

145. Stressors that may cause subluxation
 D. chemical, mechanical, and mental
*****D*****

146. In the picture below, what structure is indicated by #3 was;



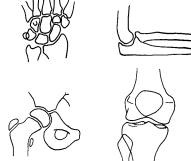
- A. lateral canthus
 B. pupil
 C. limbus
 D. pingueculae
 E. lens
*****C*****

147. There is a picture of a fat, old man with the following information: A 54 year old male presents with a blood pressure of 160/95, 2 temperature of 37° C, and a heart rate of 85/minute. He weighs 205 lb, 5'7", normal respiration, normal reflexes, no edema, no carotid or jugular bruits or problems palpable 5 cm, apical pulse (heave) Some explanation about S1 S2 S3 S4 sounds. History included: one hour attacks of substernal pain over the past few years that last about 1 hour and are relieved by rest and nitroglycerin. The episodes are caused by anxiety and exertion. Although he has taken three nitroglycerin pills in the past hour, he is still in pain and has a cold sweat. What would be useful to evaluate?
 A. CPK
 B. LDH
 C. amylase
 D. vitamin level
*****A*****

148. What procedure would you perform?
 A. echocardiogram
 B. electrocardiogram
 C. electromyography
 D. MRI
*****B*****

149. What is your diagnosis?
 A. acute MI
 B. angina
 C. acute anxiety attack
 D. pulmonary condition
*****A*****

150. What type of joint occurs around the axis through the humerus and radius?



- A. hinge
 B. ball and socket
 C. ellipsoid
 D. pivot
 E. saddle
*****A*****

151. A patient presents with a reduced upper extremity carrying angle as is shown in the figure. This condition is known as:



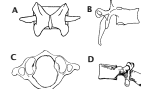
- A. valgus deformity
 B. swan neck deformity
 C. gunstock deformity
 D. seal-fin deformity
*****C*****

152. Which condition is depicted on Fig A _____ tongue?



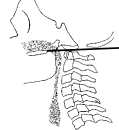
- A. geographic
 B. scrotal
 C. hairy
 D. strawberry
*****B*****

153. Which of the following is a median sagittal view of the thoracics?



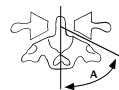
- ***B*****

154. Identify the line in the diagram below



- A. McGregor's
 B. Chamberlains
 C. Martins
 D. McRae's
*****A*****

155. In the picture, the angle of the facets is indicated by a letter A. what is its usual degree?



- A. 90°
 B. 70°
 C. 30°
 D. 10°
*****B*****

156. An x-ray of with a lucent oval shaped region in the distal part of it. There was an x-ray belonging to a young 8 year old male with nocturnal pain of tibial diaphysis. It showed a radiolucent nidus with irregular and rather wide sclerotic margins. Choices were:
 A. Brodie's abscess
 B. osteoid osteoma
 C. bone island
 D. osteoblastoma
*****B*****

159. X-ray A-P lumbar and tomogram. A 16 year old female Gymnast with low back pain.
 A. congenital absence of pars with stress hypertrophy of opposite pedicle
 B. blastic METS of pedicle with absence of opp pedicle
 C. sclerosis of one pedicle defect of 2
 D. One eyed but lytic METS not a choice
*****A*****

160. What nerve is best evaluated with abduction of the fingers against resistance?

- A. ulnar
 B. median
 C. interossei
 D. radial
*****A*****

161. Atrophy and weakness of the small intrinsic muscles of the hand is most likely due to a lesion of what nerve root level?
 A. C6
 B. C7
 C. C8
 D. T1
*****D*****

162. What type of pain is indicative of causalgia?
 A. shooting
 B. stubbing
 C. burning
 D. pricking
*****C*****

163. Pupillary reflex testing is used to examine which cranial nerve?
 A. II
 B. III
 C. IV
 D. V
*****A best (also B)*****

164. If the quadriceps muscles are paralyzed, what muscle would be used instead for leg extension?
 A. sartorius
 B. gastrocnemius
 C. biceps femoris
 D. hamstrings
 E. popliteus
*****A*****

165. A patient presents with pain which started in the low back and radiated down the postero-lateral leg. There is decreased sensation with numbness on dorsum of foot but with normal sensation on sole. What disc is involved?
 A. L2-L3
 B. L3-L4
 C. L4-L5
 D. L5-S1
*****C*****

166. A patient with Parkinson's disease will likely present with which physical findings?
 A. stooped posture
 B. intention tremor
 C. decreased muscle tone
 D. nystagmus
*****A*****

167. What will also be present in a patient with festination gait and pill-rolling tremor?
 A. nystagmus
 B. cogwheel rigidity
 C. steppage gait
 D. intention tremor
*****B*****

168. 30 year old female with leg weakness and fasciculations.
 A. multiple sclerosis
 B. extra-medullary tumor
 C. intra-medullary tumor
 D. ALS
*****A*****

169. Which of the following tumors occurs in patients older than forty years of age?
 A. Ewing's
 B. osteosarcoma
 C. multiple myeloma
 D. osteochondroma
*****C*****

170. Most common age for idiopathic infantile scoliosis to begin is?
 A. 2-4
 B. 6-8
 C. 10-12
 D. 12-14
 A
171. The tube angulation for an A-P L5-S1 spot shot is:
 A. 35° cephalad
 B. 35° caudad
 C. 10° caudad
 D. perpendicular to the film
 A
172. When taking an A-P oblique of the SI joint the affected side should be;
 A. away from the film
 B. toward the film
 C. parallel to the film
 D. perpendicular to the film
 D
173. A pedunculated lesion attached by a stalk to the metaphysis of a long bone best describes?
 A. osteochondroma
 B. osteosarcoma
 C. osteoid osteoma
 D. non-ossifying fibroma
 A
174. Which is the most likely contraindication for an MRI?
 A. dental filling
 B. pacemaker
 C. tumor
 D. organ problem
 B
175. Which of the following radiographic studies are definitive of hyperparathyroidism?
 A. skull series
 B. hand series
 C. KUB
 D. chest series
 B
176. Osteochondritis dessicans is most commonly found
 A. medial femoral condyle
 B. lateral femoral condyle
 C. talus
 D. femoral head
 A
177. Facet imbrication is seen best on which view of lumbar spine?
 A. A-P lumbo-pelvic
 B. lateral lumbar
 C. oblique lumbar
 D. counter rotated
 B
178. A "hot spot" on a bone scan suggests;
 A. decreased blood flow
 B. decreased bone activity
 C. increased blood and bone activity
 C
179. A 25 year old male who stepped off a curb and experienced pain at L5/L4 level. X-ray shows decreased density at L1, with trabeculated vertical striations.
 A. hemangioma
 B. solitary plasmacytoma
 C. metastatic carcinoma
 D. idiopathic osteoporosis
 A
180. If you take an ulnar deviation X-ray, what do you visualize?
 A. pisiform
 B. hamate
 C. navicular
 D. trapezium
 C
181. Which of the following questions is most appropriate to ask a patient when inquiring about a lung ailment?
 A. Do you suffer from dyspnea?
 B. Do you have shortness of breath?
 C. Do you have lung cancer?
 D. Are your lungs normal?
 B
182. Patient presents with calf pain after walking several hours. This information should be written as:
 A. chief complaint
 B. description of symptom
 C. intensity of symptom
 D. precipitating factor
 A
183. The insurance company approves care for a patient. The patient has been seen for 2 months. The past two weeks the care has increased dramatically. What would the insurance company request from the doctor?
 a. initial patient entrance form
 b. patient progress notes
 c. initial case history
 d. physical exam
 B
184. A young male comes in with low back pain which occurred when he tried to lift a heavy box. What question would you need to ask?
 a. Do you have insurance?
 b. Have you seen a chiropractor before?
 c. Can you lift your arms above your head?
 d. Where is the location of the pain?
 D
185. Upon taking a case history of a musculo-skeletal pain, which is the most important question to ask the patient?
 a. Is there a family history of musculoskeletal disease
 b. Was there recent trauma?
 c. Have you had previous musculoskeletal pain before?
 B
186. A 20 year old male presents in your office with slight jaundice, and a slight increase in unconjugated bilirubin. The patient is asymptomatic, with all other lab findings normal. This is most suggestive of;
 A. Little's disease
 B. hemolysis
 C. early hepatitis
 D. Gilbert's disease
 D
187. Most diagnostic of an eye with heliotrope coloration
 A. blepharitis
 B. xanthelasma
 C. arcus senilis
 D. polymyositis
 D
188. Which condition of the eye needs to be referred?
 A. ectropion
 B. styte
 C. Drusen
 B
189. Which of the following will not be found on the eyelid?
 a. pinguecula
 b. xanthelasma
 c. styte
 d. chalazion
 A
190. A patient presents with red, bulging disc with fuzzy, indistinct margins and red tortuous arteries would suggest;
 a. papilledema
 b. glaucoma
 c. hypertension
 d. Graves disease
 A
191. An 18 year old male presents with a painful, bent erection which curves drastically upwards due to thickening and fibrous adhesions of the fascia of anterior or dorsal surface of the penis suggests;
 A. epispadias
 B. hypospadias
 C. Peyronie's disease
 D. syphilis
 C
192. What is the primary cause of egophony, bronchophony, and whispered pectoriloquy?
 A. viral pneumonia
 B. bronchiectasis
 C. lobar pneumonia
 D. emphysema
 C
193. With a vascular obstruction of an extremity, you may see?
 A. rise and fall of pulse
 B. difference of blood pressure between limbs
 C. difference of strength between limbs
 B
194. What is considered a high risk for heart attack?
 A. increased cholesterol levels
 B. increased triglycerides levels
 C. stress
 D. no exercise (or inactivity)
 A
195. The most common symptom of patient presenting with serous otitis media is?
 A. tinnitus
 B. hearing loss
 C. vertigo
 D. fever
 B
196. A pregnant woman in her 3rd trimester of pregnancy presents with carpal tunnel syndrome. Which of the following would you believe to be the cause?
 A. ligament laxity due to relaxin
 B. edema due to fluid retention
 C. B6 deficiency
 D. increased stress of pregnancy
 B
197. A male patient presents with a "grape-like" or a "sac of worms" mass attached to his testicle. It does not transilluminate;
 A. malignancy
 B. varicocele
 C. hydrocele
 D. spermatocele
 B
198. A 45 year old female presents with left sided headaches of 2 weeks duration lasting 1-2 hours and with lacrimation of left eye and rinitis. What is the best diagnosis?
 A. cluster
 B. acute rhinitis
 C. transient ischemia
 A
199. A 70 year old male presents with low back pain. What studies should be performed?
 A. protein electrophoresis and bone marrow biopsy
 B. triglycerides, G.T.T.
 C. sickle cell and blood
 D. serum glucose
 A
200. What physical findings would you expect to see in a patient with chronic uremia?
 A. reddish blue palms
 B. yellowish skin coloration
 C. yellow sclera and nail beds
 D. blue lips, gums and mouth and nail beds
 B
201. A woman has breast cancer. Which is the most likely location that it can be palpated?
 a. upper lateral quadrant
 b. upper medial quadrant
 c. lower lateral quadrant
 d. lower lateral quadrant
 A
202. A 19 year old female presented with well defined movable tender mass of the breast. Upon transillumination the mass was translucent. What is the most likely diagnosis?
 A. carcinoma
 B. cyst
 C. mastitis
 D. fibroadenoma
 B
203. A 29 year old woman presents with a right adnexal mass of 9cm which is tender to the touch. Pain is only on the right side there is no fever and the CBC is within normal limits.
 a. ovarian cyst
 b. tubal pregnancy
 c. acute appendicitis
 d. uterine fibroid
 D

204. Patient experiences acute onset of wheezing and dyspnea. What would be the most likely differential diagnoses?
 A. bronchogenic carcinoma and TB
 B. angina pectoris and myocardial infarction
 C. asthma and pulmonary embolism
 D. pneumonia and emphysema
 C
205. Which of the following is the most appropriate for the initial evaluation in a 28 year old female with a suspected lower urinary tract infection?
 A. urine nitrate
 B. urine pH
 C. urine hemoglobin
 D. sodium urate
 A
206. 36 year old male having problems urinating has a palpable large, hard, painless lumpy prostate what is condition?
 A. prostatitis
 B. benign prostatic hypertrophy
 C. malignant prostatic carcinoma
 D. inflamed bladder
 C
207. Which of the following is not associated with iritis?
 A. gonorrhea
 B. septicemia
 C. ankylosing spondylitis
 D. degenerative arthritis
 D
208. A 25 year old female presents with chest pain in T4-T5 sternal area especially when taking a deep breath or coughing. Pain increased with A-P pressure. Examination reveals BP 117/80, temperature 98.7°, pulse 68. and lab studies are within normal limits.
 A. reflux esophagitis
 B. angina pectoris
 C. Tietze's
 D. bronchogenic carcinoma
 C
209. A patient with a history of angina pectoris presents with residual back pain following a "bout of angina" which lasts a couple of hours and is not relieved when he sits down. What condition must be ruled out?
 A. myocardial infarction
 B. coronary spasm
 C. hiatal hernia
 D. cardiospasm
 A
210. A 60 year old male presents with a 6 month history of angina. He described pain as a sharp, stabbing pain in the thoracic while clenching fist over sternum. The pain is not relieved with rest.
 A. myocardial infarction
 B. thoracic subluxation
 C. angina pectoris
 A
211. A slender female presents tan with vague abdominal discomfort, diarrhea, and nausea. She also has chronic fatigue. Blue black spots in oral mucosa. Blood pressure 80/50. Light headiness when standing from seated position. She is most likely suffering from?
 A. adrenocortical deficiency
 B. cirrhosis of liver
 C. acute viral infection
 D. acute hypoglycemia
 A
212. A young adult male presents with chest pain of sudden onset following an episode of violent coughing. The pain is localized to a specific area in the chest. What is the most likely diagnosis?
 A. pneumonia
 B. pneumothorax
 C. pulmonary embolism
 D. myocardial infarction
 B
213. An 80 year old female presents after fall-ing. Her leg is in external rotation and appears shorter. (No x-ray or lab work given.)
 A. posterior dislocation of hip
 B. intra-articular femoral fracture
 C. extra-articular femoral fracture
 D. avulsion fracture of lesser trochanter
 B
214. Where does the center of gravity run exactly through?
 A. entire body
 B. umbilicus
 C. spine
 D. pubic symphysis
 A
215. A weakness of which muscle will cause a waddling gait?
 A. gluteus medius
 B. hamstrings
 C. quadriceps
 D. gastrocnemius/soleus
 A
216. Strengthening vastus medialis helps chondromalacia patella by?
 A. supporting lateral meniscus
 B. prevents lateral deviation
 C. reduce the Q-angle
 D. increase strength of the quadriceps
 E. medial meniscus tear
 C
217. A patient has weakness at the abductor pollicis. Which other muscle do you need to check that could cause weakness to this muscle?
 A. brachioradialis
 B. supinator
 C. pronator teres
 D. posterior tibialis
 C
218. A 2 month old female has asymmetrical skin folds on the anterior and posterior aspect of the hip. What orthopedic tests would you do?
 A. Ortolani's
 B. Thomas' test
 C. Dabreling leg check
 D. straight leg raiser
 A
219. What is a series of tests used to evaluate for vertebral basilar insufficiency?
 A. George's test
 B. Mill's test
 C. Adsons test
 D. Wright's test
 A
220. Which of the following joints has an internal meniscus?
 a. carpo-ulnar
 b. radio-ulnar
 c. TMJ
 d. acromioclavicular joint
 C
221. Injury to the medial meniscus is usually accompanied by injury to:
 A. anterior cruciate
 B. posterior cruciate
 C. medial collateral
 D. lateral collateral
 C
222. What joint is muscle integrity considered most important?
 A. acromioclavicular
 B. radio-ulnar
 C. gleno-humeral
 D. radio-humeral
 C
223. What should high school football players increase in order to reduce knee injuries late in the game?
 A. strength
 B. endurance
 C. power
 D. flexibility
 B
224. What is the primary elevator of the scapula?
 A. trapezius
 B. latissimus dorsi
 C. rhomboid minor
 D. rhomboid major
 A
225. Which of the following muscles is responsible for external rotation of the humerus? (primary external rotator of the shoulder).
 A. subscapularis
 B. infraspinatus
 C. rhomboid major
 D. serratus anterior
 B
226. (they explained) burns bench test patient had pain.
 A. malingering
 B. SI pain
 C. disc (something)
 A
227. Neurovascular compression by scalenus anticus will give positive test.
 A. Allen's
 B. Eden's
 C. Wright's
 D. Adson's
 D
228. What exercise will promote a normal lordosis in a patient with a hypo lordotic spine?
 A. hamstring stretches
 B. hamstring strengthening
 C. quadriceps stretch
 D. iliopsoas stretch
 A
229. Which of the following is most commonly seen in a patient with thoracic outlet syndrome?
 A. increased systolic BP
 B. decreased oral temperature
 C. pallor of the fovea (optic fundus)
 D. bruit heard superior to the clavicle
 D
230. What is the doctor trying to achieve with patient lying prone and alternately lifting each leg?
 A. increase lordosis
 B. decrease scoliosis
 C. decrease thoracic kyphosis
 D. increase thoracic kyphosis
 E. decrease lumbar lordosis
 A
231. What is the recommended dietary management of a person with degenerative joint disease of a weight bearing joint?
 A. calcium and magnesium supplements
 B. maganese supplements
 C. obtain normal body weight
 D. decrease cholesterol
 E. zinc
 A
232. Which element will help the liver promote the glucose tolerance factor?
 A. zinc
 B. selenium
 C. chromium
 D. magnesium
 C
233. A woman who is in her 2nd trimester of pregnancy taking 44 grams protein a day per her dietician, which is the recommended daily amount for non-pregnant female. What would you suggest?
 A. decrease protein intake 10 grams/day
 B. stay the same until last trimester, then increase by 30 grams/day
 C. increase protein intake by 30 grams/days now till end
 D. double protein intake now
 B
234. Resection of terminal ileum may result in deficiency of which substance?
 A. vitamin B12
 B. folic acid
 C. vitamin C
 D. iron
 A
235. A man presents with muscle weakness in the hands and arms. He is a confessed alcoholic and exam reveals a tortuous radial artery and a slightly enlarged heart. There are no lab finding. What B vitamin should be recommended?
 A. thiamine
 B. riboflavin
 C. niacin
 D. pyridoxine
 A
236. A patient presents with macrocytic normochromic anemia suggests which kind of anemia?
 A. pernicious anemia
 B. iron deficiency
 C. calcium malabsorption
 D. serum ferritin
 A
237. In which of the following conditions is ESR normal?
 A. myocardial infarction
 B. pelvic inflammatory disease
 C. multiple myeloma
 D. angina pectoris
 D

238. In which condition is HLA-B27 increased?

- A. RA
 - B. AS
 - C. SLE
 - D. Gout
- ***B***

239. What serum chemistries will be elevated with ongoing inflammation?

- A. total calcium
 - B. chloride
 - C. phosphorus
 - D. ESR
- ***D***

240. Patient had a hyperflexion/extension injury 5 days ago, and was treated with ice and rest. What is the next immediate treatment?

- A. adjust fixations, intermediate traction
 - B. adjust fixations, avoid stretching and strengthening
 - C. general mobilization for cervicals and thoracics
 - D. ice and rest for another 5 days
- ***B***

241. In which area of the spine should you not contact the transverse process?

- A. cervical
 - B. upper thoracic
 - C. lower thoracic
 - D. lumbar
- ***D***

242. The adjustment occurs in which area of motion?

- A. parapsychological
 - B. active
 - C. neutral
 - D. passive
- ***A***

243. What modality would be best for migraine headache;

- A. cold pack
 - B. cervical traction
 - C. hot pack
 - D. TENS
- ***A***

244. A 62 year old man shoveling snow has a blood pressure of 170/90. What is the best advice you can give him to help him with

- a. use a curved bent handle shovel
 - b. push the snow in small amounts rather than lifting it
 - c. wear warm clothing to prevent muscle tightness
 - d. turn alternating to alternating the right hand and left when shoveling
- ***B***

245. A patient that has a cast on a recent fracture presents with low back pain. Upon initial examination, you note that he has decreased sensation on the dorsum of his foot;

- a. refer back to the doctor that gave him the cast
 - b. L5-S1 disk
 - c. take a lumbopelvic x-ray
- ***A***

246. What is the best advice that should be given to a patient who suffers from angina pectoris?

- A. decrease exercise
 - B. increase dietary fiber
 - C. supplement with Vitamin C
 - D. stop smoking
- ***D***

247. What should you do when you get a patient under 18 years of age?

- A. parental signature
 - B. x-ray series
 - C. full lab findings
- ***A***

248. ACA Journal's definition for using modalities in a chiropractic office.

- A. to increase circulation
 - B. to break up adhesions
 - C. to relax patient before adjustment
 - D. allow body to return to a more normal state of health
- ***D***

249. Lateral epicondylitis treatment

- A. friction rub and pulsed ultrasound
 - B. immobilize
 - C. short wave diathermy and effleurage
 - D. ice and stretch
- ***A***

250. Which would be the most recommended treatment for a person with chronic costoclavicular syndrome.

- A. hot moist heat
 - B. sleep with arms elevated above heart
 - C. exercises to strengthen the trapezius
 - D. soft cervical collar
- ***C***

251. What contraindicates the use of (flexion distraction?) traction in the lumbar spine?

- A. spondylolisthesis
 - B. disc protrusion
 - C. myospasm
 - D. grade III sprain
 - E. facet syndrome
- ***D***

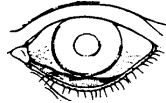
252. Which condition would be best helped with manipulation of the knee?

- A. lateral meniscus tear
 - B. friction due to iliotibial band syndrome
 - C. biceps femoris tendinitis
 - D. popliteal tenosynovitis
- ***D***

253. What would be the proper care or treatment for a patient with lordotic nerve root irritation and facet imbrication;

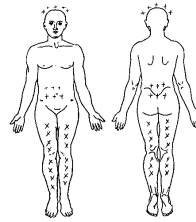
- A. strengthen and stretch the lumbar muscles
 - B. adjust and give ice therapy
 - C. bed rest
 - D. ultrasound therapy
- ***A***

254. Identify the condition in the diagram below



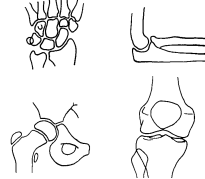
- A. exophthalmos
 - B. ectropion
 - C. ptosis
 - D. periorbital edema
- ***B***

255. Patient presents complaining of pain, burning and paresthesias in the following areas. What is the cause?



- A. psychological
 - B. C1 subluxation
 - C. L5-S1 disc
 - D. post facet syndrome
- ***A***

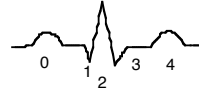
256. What joint has the most motion to it?



257. Which scoliosis is most likely to be a structural scoliosis?

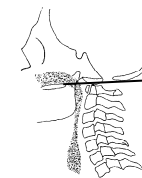


252589. Which number in the diagram depicts atrial depolarization?



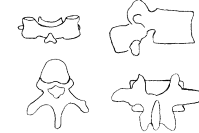
- A. 0
 - B. 1
 - C. 2
 - D. 3
- ***A***

259. Which line is demonstrated in the diagram below?



- A. McRae's
 - B. McGregor's
 - C. George's
 - D. Ferguson's
- ***B***

260. Which choice is median sagittal projection of a vertebra?



261. A 26 year old woman who is a typist has pain in the wrist. She states that she fell 2 weeks ago and landed on her hyperextended hand. What is the likely cause of her pain?



- A. perilunate subluxation
 - B. scaphoid fracture
 - C. Colle's fracture
 - D. Monteggia fracture
- ***A***

262. 26 year old male presents with lower cervical and upper thoracic pain after painting his ceiling all weekend. What does the x-ray demonstrate?



- A. compression fracture of C7
 - B. avulsion fracture of C6
 - C. cervical rib syndrome
 - D. C5 (?)
- ***C***

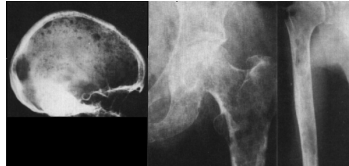
263. (30 year old with x-ray of tibia with a pathology of some sort. Anterior bowing of tibia and fibula)



- A. Fibrous dysplasia
 - B. Paget's
 - C. multiple myeloma
 - D. enchondroma
- ***A***

264. A 7 year old male is brought into your office with chest pain and a productive cough. Chest films reveal a 2.5cm opacity on the right with the air bronchogram sign. Examination reveals a dull sound on percussion. The most likely cause is;
- atelectasis
 - emphysema
 - asthma
 - pneumonia
- ***D***

265. 40 year old male with anemia and rouleau, elevated ESR -



- MM
 - Paget's
 - lytic mets
 - fibrous dysplasia
- ***A***

266. X-ray wrist



- Kienbock's
 - styloid subluxation
 - scaphoid fracture
 - Colles
- ***C***

267. The black and white on an x-ray called

- film density
 - subject density
 - film contrast
 - subject contrast
- ***C***

268. A man has no fluid arm motion. The arm stays at his side while walking. He has resting tremors and a mask-like face. What is he likely to have?

- cerebellar
 - pyramidal
 - extrapyramidal
 - end organ defect (dysfunction)
- ***C***

269. The lateral cervical film of a patient with a hyperflexion-hyperextension injury reveals a retropharyngeal interval of 29 mm. This would suggest;
- hematoma

270. What supplement would you recommend for a patient removal of the parathyroid gland?
- calcium

271. Tapping on the volar carpal ligament in the distribution of the median nerve to reproduce pain is know as:

- Leri's sign
 - Tinel's sign
 - Allen's test
 - Wright's test
- ***B***

272. The primary protractor of the scapula is innervated by which of the following nerve roots?

- C1-C3
 - C5-C7
 - T2-T4
 - T4-T6
 - T6-T8
- ***B***

273. A 37 year old female with arthralgia; tender, swollen hand joints and a mild rash on the malar aspect of the face. CBC was normal; urinalysis reveals a +2 proteinuria; ESR was 35 mm/hour. What is the diagnosis?

- Parkinson's
 - SLE
 - Reiter's
 - scleroderma
- ***B***

274. What time period should a Milwaukee brace be worn?

- 23 hours a day
 - only when awake
 - when asleep
 - taken off at night
 - 24 hours/day
- ***A***

275. What is the normal WBC count?

- 1,000-3,000
 - 3,000-5,000
 - 5,000-10,000
 - 10,000-30,000
- ***C***

276. A decreased hematocrit would be seen in which of the following conditions?

- pregnancy
 - polycythemia vera
 - acute infection
 - dehydration
- ***A***

277. Which of the following would show normal laboratory findings?

- Marie-Strümpell disease
 - Reiter's syndrome
 - Dupuytren's contracture
 - Dermatomyositis
- ***C***

278. What type of sound occurs during expiration when air is forced through a constricted bronchiole?

- wheeze
 - vesicular
- ***A***

279. Use of a small focal spot ;

- will increase distortion
 - decreases patient dose
 - increases resolution
 - decreases magnification
- ***C***

280. A 22 year old patient presents with short breath. The most common cause is:

- pulmonary embolism
 - anxiety
 - TB
 - cancer
- ***B***

281. What condition presents with sputum that smells like rotten eggs?

- acute tracheobronchitis
 - alveolar cell carcinoma
 - lung abscess
 - pulmonary edema
 - tuberculosis
- ***C***

282. What is found in rheumatic fever?

- tics
 - chorea
 - athetosis
 - dystonia
- ***B***

283. A patient presents with an athletic injury to the knee. What is the best way to visualize?

- 3 view x-ray
 - MRI
 - CT scan
- ***B***

284. Which of the following minerals should be given in a 1:1 ratio with calcium to prevent hypocalcemia?

- phosphorus
 - potassium
 - iron
 - magnesium
- ***A***

285. A 25 year old female is seven months pregnant with signs and symptoms of weakness, pallor, sore tongue, and intermittent diarrhea. She has a macrocytic anemia. What dietary advice would you give?

- fruits and green vegetables
 - grains and legumes
 - animal proteins and green vegetables
 - dairy products and fruits
- ***C***

286. What groups cause the most common food allergies?

- milk, egg, wheat and corn
 - banana, grapefruit, chocolate and beef
 - lemon and carrots
 - orange and peanut butter
- ***A***

287. A 64 year old male presents with the chief complaint of paroxysmal nocturnal dyspnea for 2-3 years. The physical exam revealed a temperature of 98.8°, pulse of 90 BPM and a blood pressure of 179/105. Light crackles were heard at both lung bases. There was a 2/4 rumbling apical diastolic murmur with an opening snap. What is the cause?

- pulmonary edema
 - pericardial effusion
 - positional hypertension
 - decreased blood volume
- ***A***

288. What would you do next?

- CPK
 - A-P & lateral thoracic films
 - electrocardiogram
 - ESR
- ***B***

289. What is your diagnosis?

- acute myocardial infarction
 - mitral stenosis
 - pulmonary infection
 - angina pectoris
- ***B***

290. A 50 year old patient complains of increased difficulty driving at night. He also has papular lesions on the posterior aspects of his upper arm. What deficiency below could apply to the condition?

- zinc
 - Mg
 - biotin
 - Vitamin A
- ***D***

291. What is a description of superficial pain?

- throbbing
 - pricking
 - cramping
 - boring
- ***B***

292. Which of the following produce an elevated serum calcium?

- hypoparathyroidism
 - celiac disease
 - rickets
 - hypervitaminosis D
 - multiple myeloma
- ***D***

293. Why should parents of a child with a viral infection be cautioned against giving the child aspirin?

- Reye's
 - Guillian-Barré
- ***A***

294. Which physiological effect of heat would make heat a poor choice in the treatment of a patient with an acute injury and tissue edema?

- Increased nerve conduction velocity
 - local histamine release
 - decreased number of motor nerve impulses
 - decreased muscle tension
- ***B***

295. A patient has hearing loss. Weber's test lateralizes to the right. This suggests what problem?

- otosclerosis in the right ear
 - nerve lesion in the right ear
 - cerumen obstruction in the left ear
 - otitis media in the left ear
- ***A***

296. Patient presents with a dull, aching pain which originates above the greater trochanter and extends down the lateral thigh to the knee and sometimes extends to the antero-lateral leg. The onset was insidious and the patient is unaware of any initiating accident. Walking up and down stairs aggravates the condition. Plumbline analysis reveals that the pelvis is shifted away from the side of pain. What therapy is indicated for this condition?

- transverse frictional massage of the ilio-tibial band
 - stretching of the erector spinae muscles
 - strengthening of the erector spinae muscles
 - sacroiliac belt
- ***A***

297. At which age is scoliosis most progressive?

- 0-5
 - 5-10
 - 12-15
 - 18-25
- ***C***

298. A circumferential tear within the disc in early degeneration may be due to what motion?

- flexion
 - extension
 - rotation
 - lateral flexion
- ***C***

299. An athlete presents with knee pain on active knee extension. He is unable to fully extend his knee and there is no rotation of the femur on the tibia.

- anterior cruciate
- posterior cruciate
- medial meniscus
- lateral collateral ligament

C

300. When a patient comes into the office and the doctor asks, "What brings you in here today?", he is trying to elicit;

- the chief complaint
- the history
- the social history
- the family history
- past medical history

A

301. A patient complains of morning stiffness in the joints which improved as the day went on. Test was positive for HLAB-27.

- rheumatoid arthritis
- ankylosing spondylitis
- osteoarthritis

B

302. Of the following shoulder lesions, which is described as a slight hollowness over the joint with a tight firm stringy deltoid?

- anterior inferior humeral dislocation
- posterior humeral dislocation
- acromioclavicular subluxation
- rupture of the biceps brachii

A

303. Apparent leg length showed a 1" difference, but the measurement from the ASIS to the medial malleolus was equal:

- pelvic obliquity
- old Legg-Calves-Perthe's
- fracture

A

304. What muscle action is best used as a test for L4?

- inversion
- eversion
- dorsiflex
- plantar flexion

A

305. What do you need to know in a case of ankle sprain for initial treatment?

- grade or severity
- direction
- previous injury
- how old is the patient

A

306. Bronchospasm may result from a reflex subluxation of the _____ vertebrae.

- C2-5
- C7
- T1-2
- T3-4
- T5-9

D

307. The most important physical finding to suggest successful resolution prior to releasing an athlete back to play football after a pinch-stretch neurapraxia of the brachial plexus is;

- increased strength of extremity
- absence of paresthesia and tenderness
- absence of pain with range of motion of hurt area
- decreased tingling and numbness in the upper extremity

A

308. A 60 year old patient presents with generalized weakness, light headedness, rapid pulse and mild diarrhea. She is also experiencing tingling in her finger tips, and difficulties knitting and picking up coins. Recent CBC reveals MCV of 110 fL, decreased leukocytes, platelets, and erythrocytes and the sedimentation rate is decreased. What would be your next procedure?

- serum folic acid
- serum B12 assay
- TIBC
- liver enzyme panel

B

309. Which of the following sequelae of an acute whiplash injury contraindicates the use of continuous cervical traction?

- muscle spasm
- temporomandibular joint pain
- foraminal compression
- facet jamming

A

310. A 63 year old female presents with pain in multiple joints. She also complains of chronic eye irritation, and a dry mouth and eyes. Sometimes when she touches cold things, she will get blanching of the skin. Two years ago, she was diagnosed by an M.D. as having Raynaud's syndrome. Based on this history, which syndrome is the most likely diagnosis?

- Horner's
- Sjögren's
- Adies
- Felty's

B

311. A man complains of a long history of diffuse and achy pain bilaterally in the back and down to his knee. Palpation of the L4-5 facet is very tender. Lasègue's test reproduces the leg pain. Spinous percussion is tender at the L4-5 and L5-S1 interspaces. His pain is likely to be.

- neurogenic
- scierotogenous
- myotogenous
- discogenic

B

312. What is the most common reason for using interferential current on a patient presenting with low back pain?

- relief of pain
- edema reduction
- muscle contraction
- heat
- break up adhesions

A

313. A 50 year old male presents with dull, achy, low back pain. Auscultation reveals a systolic bruit over the abdominal aorta. There is moderate diffuse spondylosis of the lumbar spine on x-ray. All orthopedic and neurological tests are negative.

- lymphoma
- aortic aneurysm
- central canal stenosis
- disc prolapse

B

314. A 67 year old male smoker has episodes of fainting. Each time before fainting, he gets muscle weakness in the arm. He also noted that afterwards, he feels irritable and has also urinated on himself. What would you do?

- EEG
- ECG
- Hemocult
- arteriole GAS

A

315. A male patient presents who has persistently high cholesterol levels. He has tried a modified diet for two months, with no change in his blood. He has a transient, prickly hot sensation of the skin of his arms, legs and face. What is this a result of?

- increased fiber in the diet
- unusual findings of increased cholesterol
- excess intake of dietary pyridoxine
- excess intake of dietary niacin

D

316. A 40 year old man presents with knee pain. His knee locks up when he sits in a theater too long or drives too long. What is the most likely cause?

- Baker's cyst
- pes anserine bursitis
- chondromalacia patella
- rheumatoid arthritis

C

317. What would be the initial treatment for a patient with adhesive capsulitis?

- prone circumduction exercises
- supine circumduction exercises
- seated circumduction exercises
- finger walking up the wall exercises

A

318. A male patient presents in the office complaining of whiplash. He was in an auto accident two days ago. He has dried blood in his right ear, leans to his left, has a positive Romberg's test with his eyes closed. He has neck and low back pain with muscle spasms and subluxations at C1, C2, and L5. What would be the most appropriate initial case management of this patient?

- make plans to immediately take patient to the emergency room
- take an AP and lateral full spine film to analyze the subluxations
- bed rest see in 3 days
- tell him to see his physician for medication

A

319. Which of the following is the most sensitive way of detecting early ischemic necrosis of the femoral capital epiphysis?

- radionuclide bone scan
- computed tomography
- soft tissue radiography
- magnetic resonance imaging

A

320. A patient presents with dull thoracic pain. Two days earlier, the patient said he experienced flu-like symptoms, vomiting, clammy skin and a racing pulse along with deep chest pain and a "pressure" sensation.

- influenza B
- spontaneous pneumothorax
- dissecting aneurysm
- myocardial infarction

D

321. A left-handed carpenter presents with anterior humerus pain which radiates down the lateral arm. He has increased pain on movement and is unable to work. Which movement would be most painful?

- adduction
- abduction
- supination
- pronate

B

322. How would his pain be differentiated from a visceral problem?

- pain worse with movement

323. What is your diagnosis of his problem?

- synovitis
- bursitis

B

324. If you find calcium pyrophosphate crystals, what would you expect?

- SLE
- gout
- RA
- chondrocalcinosis

D

325. A 28 year old male presents complaining of polyuria and polydipsia for the last 3 weeks. He has lost 10 lbs without trying. Based on this information, what is the most likely cause?

- psychogenic polydipsia
- hypertrophic prostate
- congestive heart failure
- diabetes

D

326. A solitary pulmonary parenchymal opacity is present in the patient's chest x-ray:

- infiltrate
- fibrosis
- cyst
- bullae

A

327. Which of the following is contraindicated for a grade 2 spondylolisthesis:

- abdominal strengthening
- soft tissue therapy
- flexion/distraction technique
- extension

D

328. In a grade one spondylolisthesis, which type of exercises would be indicated?

- spinal flexion
- spinal extension
- abdominal

C

329. Name an orthopedic test for testing a weak gluteus medius and minimus:

- Hibb's
- Goldthwait's
- Ely's
- Trendelenburg

D

330. A 30 year old female complains of dull low back pain. (not related to any thing in particular). She is a secretary and the pain is worse at the end of the working day. Lab, orthopedic and neurological tests are normal. What would you recommend to this patient?
- to increase calcium intake
 - to change her postural habits
 - to see her MD
- ***B***
331. What method would be used to measure central canal stenosis:
- McNabb's
 - Meyerding's
 - Eisenstein's
 - Cobb's
- ***C***
332. Which of the following would be a malingering test in possible lower limb paralysis?
- Holmes
 - Hoover
 - Burn's Bench
 - Mannkopf's
- ***B***
333. Idiopathic scoliosis is seen most commonly in which age group?
- 10-15
 - 18-22
 - 25-30
 - 3-7
- ***A***
334. Which vitamin excess produces flushing and tingling of the skin?
- riboflavin
 - thiamin
 - niacin
 - phosphorus
- ***C***
335. What is the most common method used to grade a spondylolisthesis?
- Risser's
 - Cobb's
 - Meyerding's
 - Ferguson's
- ***C***
336. Which nerve lesion would give a right lateral deviation of the tongue?
- right hypoglossal
 - left hypoglossal
 - right glossopharyngeal
 - left glossopharyngeal
- ***A***
337. A patient presents with a case of claw hand. What nerve is affected.
- radial
 - axillary
 - ulnar
 - musculocutaneous
- ***C***
338. Which lesion contains a central nidus?
- osteoma
 - osteochondroma
 - osteoblastoma
 - osteoid osteoma
- ***D***
339. A 14 year old female presents with elbow pain after falling on her out-stretched arm. X-ray analysis reveals a (+) posterior fat pad sign. The elbow otherwise appears anatomically intact. What would be your initial management of this patient?
- perform stress x-rays of the elbow
 - 20 minutes of pulsed galvanic current followed by ice to reduce swelling and promote healing.
 - immobilize the elbow and refer to orthopedist
 - Instruct patient on the use of ice and elevation and re-evaluate the elbow the following day.
- ***C***
340. Which of the following, when found together with anemia, would indicate the presence of multiple myeloma?
- uremia
 - jaundice
 - prostate hypertrophy
 - splenomegaly
- ***A***
341. How would you differentiate iritis from conjunctivitis?
- turn lid upward to see extent of redness
 - perform corneal reflex and see if lids move
 - perform eye external movements
 - perform consensual light reflex and look for pain
- ***A***
342. What supplement helps to increase the efficiency of the immune system?
- zinc
 - Mg
 - sodium
 - potassium
- ***A***
343. The patient presents with substernal pain. CPK is normal, SGOT slightly increased, alkaline phosphatase is increased. LDH is normal.
- acute MI
 - acute cholecystitis
 - angina pectoris
- ***B***
344. What is the angle (in degrees) of cervical traction that will most influence the occiput/C1/C2 complex?
- 5-10
 - 10-15
 - 15-20
 - 20-25
- ***A***
345. Which of the following symptoms is predominant in a ventral nerve root lesion?
- decreased sensory perception
 - hyperreflexia
 - referred pain
 - flaccidity of the muscle supplied by the nerve
- ***D***
346. A child raised on a macrobiotic diet presents with swollen, tender, "mushy" gums. What supplement should you give him?
- Vitamin A
 - iron
 - Vitamin C
 - Magnesium
- ***C***
347. A patient with polycythemia vera will have an increase in?
- hematocrit
 - erythrocyte sedimentation rate
 - mean corpuscular volume
 - mean corpuscular hemoglobin concentration
- ***A***
348. The statement, "my back hurts", most closely corresponds to the;
- case history
 - family history
 - chief complaint
 - laboratory findings
- ***C***
349. According to Schmorl's and Junghan's concept of joint physiology, contiguous spinal components are referred to as:
- spinal lesions
 - segments
 - vertebral motor unit
 - meric zones
- ***C***
350. The best method of determining pericardial effusion:
- percussion
 - EKG
 - echocardiogram
 - chest x-ray
- ***C***
351. Which diagnostic procedure is contraindicated for a patient with a foreign metallic object in the eye?
- CT
 - MRI
 - tomogram
 - chemistry screen
- ***B***
352. The patient presents with an enlarged supraclavicular lymph node on the left. In what area would you look for the pathology?
- neck
 - chest
 - upper abdomen
 - lower abdomen
- ***C***
353. Which of the following disease processes is the most common etiology of pathologic spondylosis?
- degenerative osteoarthritis
 - metastatic carcinoma
 - chronic facet instability
 - osteopetrosis
- ***B***
354. A 60 year old male presents with early satiety, indigestion and weight loss. Physical exam reveals a Virchow's node in the left supraclavicular area and a positive Guaiac for occult blood. Based on the information, what is the diagnosis?
- esophageal varices
 - stomach cancer
 - leukocytosis
 - pancreatic cancer
- ***B***
355. A 30 year old male presents with a history of pain in the right sacroiliac region and right little toe for the last three months. He showed no Achilles or quadriceps tendon reflexes on the right, with hamstring and gluteus maximus weakness on right. He is unable to toe walk on right. Three days prior to your exam, the back pain disappeared but he still has leg pain. He is awakened at 4:00 am everyday with excruciating leg pain. He also shows anal sphincter flaccidity, muscle fasciculations in the medial head of the right gastrocnemius, and a (+) Dejerine's triad. This patient has:
- nucleus pulposus protrusion of L4-L5 necessitating flexion /distraction therapy
 - nucleus pulposus protrusion of L5-S1, necessitating nerve conduction study
 - free fragment from the L5-S1 disk necessitating CAT scan, MRI, and neurological consultation
 - cauda equina syndrome, necessitating observation only for 7 days
- ***C***
356. The most important recommendation to a patient with low back pain of postural origin?
- avoid climbing and descending stairs
 - limit aerobic workout to 20 minutes
 - optimize nutritional vitamin supplements
 - maintain lordosis when sitting and bending forward
- ***D***
357. What sequela will cause muscle cramping due to excess salt loss?
- heat injury (burns)
 - visceral disturbances
 - Crohn's
- ***C***
358. What are the advantages to using intensifying screens?
- change density
 - change contrast
 - decrease exposure time
 - reduce penumbra
 - decrease scatter radiation
- ***C***
359. The type of lesion seen with hives is described as:
- papule
 - nodule
 - wheal
 - plaque
- ***C***
360. The cells that reproduce the least when exposed to slight radiation
- lymphocytes
 - nerve
 - bone
 - muscle
- ***A***
361. A 45 year old man with a 9 year history of cervical spine pain which radiates to his right arm, forearm, hand and fingers. Recently he has begun to experience episodes of numbness in his right hand and weak grip strength. Past history reveals 2 mild whiplash injuries several years ago. Adson's test is negative. Which exam would be the most focused screening technique in regards to the given information?
- blood pressure measurement
 - deep tendon reflex exam
 -
 - upper extremity range of motion evaluation
- ***B***

362. A 45 year old male has lower thoracic pain that radiates into his right groin. Position change and movement appear to have no effect. Based on this information, your most likely diagnosis is:

- thoracic subluxation
- kidney stone
- acute cholecystitis
- gangrenous appendicitis

B

363. In an adult, what is the normal ADI space?

- 1-3mm
- 3-5 mm
- 5-7 mm
- 7-12mm

A

364. How does an upper cervical subluxation cause face and head pain?

- because the upper cervical nerves innervate the face.
- because the spinal nucleus of the trigeminal nerve is affected by noxious afferent stimuli from C1-3
- because the blood vessels come from the vertebral artery which may cause ischemic face pain

B

365. A person with myxedema would demonstrate what symptoms?

- heat intolerance
- weakness
- weight loss
- intolerance to cold

D

366. Which of the following is the most accurate procedure for adjusting a base posterior?

- segmental contact is the apex
- line of correction is A-P
- line of correction is S-I
- doctor contacts with thenar

C

367. With which of the following syndromes would chiropractic manipulation offer the poorest prognosis:

- lumbosacral sprain
- facet imbrication
- disc prolapse
- canal stenosis

D

368. You will NOT find an increased ESR with?

- osteoarthritis
- osteomyelitis
- rheumatoid arthritis
- acute urinary tract infection
- fracture

A

369. A patient presents with retrosternal pain and dysphagia. The most likely cause is:

- duodenal ulcer
- mediastinal tumor
- esophagitis
- diverticulitis

C

370. A 31 year old female presents with hand tremors and exhibits a speech pattern with characteristic slow enunciation and hesitancy at the start of words and syllables. This characteristic speech is know as?

- clipped speech
- dysphonia
- dysphagia
- scanning speech

D

371. A 32 year old male presents with left lumbosacral pain. He states there is no previous trauma or injury. Pain is increased on bending and rotation. A-P radiograph.

- facet tropism
- early ankylosing spondylitis
- degenerative joint disease
- transitional segment

A

372. A man becomes dizzy and develops a headache after exercising vigorously. His father died of a stroke.

- berry aneurysm
- tumor

B

373. Which of the following would be most useful in determining the effect of iron replacement therapy in iron deficiency anemia?

- MCV
- MCH
- iron binding protein
- ferritin

C

374. At which level does the most significant anomaly appear?

- C1-C2
- C3-C4
- C5-C6
- C7-T1

A

375. When adjusting the cervical spine, you should use caution with what type of anomaly because of its relationship with the vertebral artery?

- posticulus posticus
- spina bifida
- ossiculum terminale
- blocked vertebrae

A

376. In which of these patients would you take a lateral cervical x-ray to check for integrity of the transverse ligament?

- Down's syndrome
- blocked vertebra
- pregnant

A

377. A young female presents 6 months pregnant with cracking at the corners of her lips and an oily dermatitis of her face. What factor may be missing from her diet?

- thiamine
- riboflavin
- niacin
- pyridoxine

B

378. What is the modality that gives you short and long term analgesia, has a deep thermal effect, decreases fibrosis and increased absorption as well as a pronounced and powerful micromassage?

- ultrasound
- interferential
- diathermy
- high volt galvanic
- paraffin

A

379. The most common definite symptom in a person with multiple myeloma is:

- malaise
- fever
- bone pain
- nausea

C

380. A 30 year old man who recently started working out has been riding a stationary bike for each of the last 3 days. He comes in complaining of posterior thigh pain. Lasegue's test reproduces the pain at 40° but ankle flexion does not. You suspect which of the following:

- hamstring strain
- lumbar disc herniation
- facet syndrome
- sciatica

A

381. A patient presents with atrophy of the intrinsic muscles of palmar surface of the left hand. Pre-senting a "claw like" appearance. The condition is?

- carpal tunnel syndrome
- ulnar neuropathy
- radial neuropathy
- brachial neuropathy

B

382. A teenage male presents with sparse coarse hair, dry rough skin and cracked lips. He also has severe headaches, and generalized weakness. He is treating himself for an acne condition. Based on this information, what is the most likely nutritional cause of his symptoms?

- decreased calcium
- hypervitaminosis A
- hypervitaminosis C
- decreased vitamin D

B

383. Neuritic pain indicates which pathophysiological process?

- increased impulse transmission on visceral efferent fibers
- decreased impulse transmission on somatic motor fibers
- increased impulse transmission on somatic afferent fibers
- increased impulse transmission on visceral or somatic efferents

C

384. A patient presents with moderate to severe whiplash symptoms. Which would the most appropriate initial case management?

- 3 days of bed rest with a pillow
- cryotherapy and neck brace for 2 days
- immediate vigorous cervical manipulation

B

385. A 50 year old woman presents complaining of nausea, vomiting, fever and right upper quadrant colicky pain. Physical examination revealed slight icterus of the eye and pain on inspiration to the point where she could not breath. Laboratory findings reveal 14,000 WBC, 84% neutrophils, 7% bands, 7% lymphocytes, and 2% eosinophils. What sign is elicited upon deep palpation of the right upper quadrant?

- Cullen's
- Murphy's
- Courvoisier's
- McBurney's

B

386. What laboratory studies would be most appropriate?

- serum lipase
- serum amylase
- acid phosphatase
- alkaline phosphatase
- bilirubin

E

387. What would be your diagnosis of this patient's condition?

- viral hepatitis
- pyelonephritis
- acute cholelithiasis
- acute pancreatitis

C

388. Due to the viscerosomatic reflex, where would the pain be referred to?

- right lower quadrant
- right scapula
- right flank
- epigastrum

B

389. A patient presents with low back pain, sciatica, marked stiffness with trunk movements and iridocyclitis. The most likely condition is?

- osteoarthritis
- ankylosing spondylitis
- aortic aneurysm
- lumbar facet syndrome

B

390. A 14 year old child presents two days after having been kicked in the shin during a soccer practice. The overlying skin is taut and shiny. There is a 1" gash that is swollen. You suspect;

- shin fracture
- anterior compartment syndrome
- osteomyelitis
- adductor hallucis strain

B

391. A lady complains of headaches that have changed in intensity. 6 months ago she complained of "common headaches" that would start at the back of her neck and head and gradually become a constricting band of pain over her head and affect her eyes. Her present headaches are much worse. They are preceded by a strange feeling. The headache causes violent head pain and she often vomits. Her eyes are very light-sensitive. Using the description of her headaches above, what type of headaches did she have 6 months ago?

- cluster headaches
- migraine headaches
- muscle contraction headaches
- temporal arteritis

C

392. In the last 6 months, what kind of headache has she been experiencing?

- cluster headaches
- migraine headaches
- muscle contraction headaches
- temporal arteritis

B

393. If you thought that she had temporal arteritis, which of the following tests would you use to confirm that diagnosis?

- ESR
- acid phosphatase
- alkaline phosphatase

A

394. The ESR would be highest in which of the following?

- a. tension headache
- b. migraine headache
- c. temporal arteritis

C

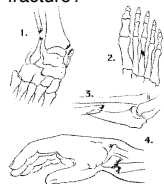
128. Identify the type of malposition?



- a. flexion malposition
- b. extension malposition
- c. decreased interosseous spacing
- d. decreased foramina

A

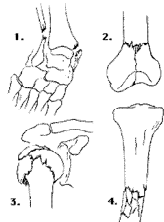
395. Which one of these pictures represents a march fracture?



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

B

396. Which diagram best shows an intercondylar fracture?



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

B

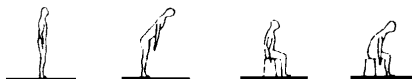
397. Which muscles are being tested?



- a. pectoralis major, latissimus dorsi
- b. anterior deltoid, coracobrachialis
- c. middle deltoid, supraspinatus
- d. latissimus dorsi, teres major, posterior deltoid

A

398. Which of the following positions puts the most amount of pressure on the L3-L4 disc?



- a. standing
- b. standing bending forward
- c. sitting
- d. sitting bending forward

D

399. A 24 year old woman with a mild case of whiplash is NOT within the 10 day but also says she is NOT pregnant. How would you manage the case?

- a. wait 28 days and do only manipulative therapy
- b. use gonadal shielding and take x-rays.
- c. take AP and lateral full spine films and adjust full spine.
- d. use light cervical manipulation and x-ray at the end of the 10 day rule.

D

400. What is this area most often used for?



- a. palpation of the most commonly dislocated carpal
- b. palpation of the most commonly fractured carpal
- c. psoriatic arthritis.
- d. ganglionic cyst

B

401. This patient has osteoarthritis with swellings at the dorso-lateral aspect of the distal interphalangeal joints in the hands. Name the pathology in the diagram below.



- a. gout tophi
- b. Haygarth's nodes
- c. Heberden's nodes
- d. Bouchard's nodes

C

402. Which suture has closed prematurely?



- a. lambdoidal
- b. coronal
- c. sagittal
- d. notha

C

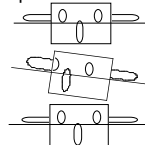
403. In which of the following areas are the sensory neurons located?



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

B

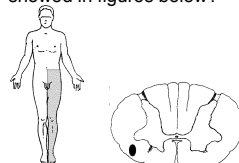
404. What is the listing for the spinous and for the articular process?



- a. PLS/RP
- b. PLI/RP
- c. PLI/RP
- d. ESR/LP

A

405. What area of the cord is exhibited by the lesion shown in figures below?



- a. cord ventral spinothalamic
- b. commissural
- c. sensory cortex
- d. thalamic

A

406. What is the cause of the scoliosis in the diagram below?



- a. Pott's disease
- b. Sprengel's deformity
- c. hemivertebra
- d. spondylolysis

C

407. What is the initial management for a untreated asymptomatic 14 year old female who presents with the finding in the diagram below?



- a. spinal manipulation
- b. refer for orthopedic bracing
- c. put her in a brace and use physical therapy
- d. refer to a neurologist for a second opinion

B

408. Which muscles are being tested?



- a. pectoralis major, latissimus dorsi
- b. anterior deltoid, coracobrachialis
- c. middle deltoid, supraspinatus
- d. latissimus dorsi, teres major, posterior deltoid

B

409. Label the peak #1 in diagram



- a. Q wave
- b. ST wave
- c. R wave
- d. T segment

D

410. A 55 year old male presents with dysphagia and restricted range of motion in the lower cervical spine. (they showed a picture of cervical x-ray with ant tissue calcified. s/s were dysphagia and decreased ROM similar to figures 10.61 A and 10.62 A&B on pages 576-577 of Yochum/Rowe). Based on the information given, what is the most likely diagnosis?

- a. advanced discogenic spondylosis of C4, C5, C6 & C7
- b. myositis ossificans
- c. diffuse idiopathic skeletal hyperostosis
- d. rheumatoid arthritis

C

411. (exact picture of a unicameral bone cyst from Russell Erhardt's bone tumor flashcards). Which of the following may be responsible for this pathological fracture?

- a. metastatic carcinoma
- b. non-ossifying fibroma
- c. unicameral bone cyst
- d. osteochondroma.
- e. giant cell tumor

C

412. Picture of innominate angle. Which muscle strengthened would reduce angle?

413. An x-ray of an AP pelvis with osteoblastic metastatic (lots of cannonballs).diagnosis is: osteoblastic metastatic

- a. osteoblastic metastatic

414. 75 year old male - x-ray of pelvis:

- a. Paget's
- b. osteoblastic CA

B

415. An x-ray of an AP pelvis with lytic metastatic (right ilium very lytic at SI joint) To whom would you refer this patient to?

- a. neurologist
- b. rheumatologist
- c. oncologist
- d. orthopedist

C

416. Story of man exercising on bike for 2 hours without pain. (Several of these neurogenic vs vascular claudication questions!) Guy gets pain when stands up briefly.

417. A 35 year old woman with pain in her fingers and hand. The pain began when she was ironing and picking up a heavy object. words not exact but leading to carpal tunnel.

418. Another carpal tunnel question referring to nocturnal pain relieved by shaking hands.

419. A lot of questions on neurogenic claudication/ canal stenosis vs vascular claudication.

420. What is the most common age for "pulled elbow syndrome" to occur?

- A. 6-18 months
 - B. 2-4
 - C. 6-8
 - D. 10-12
- ***B***

421. With cubital tunnel syndrome you would inform the patient to:

- A. avoid elbow extension
 - B. avoid elbow flexion
 - C. avoid pronation
 - D. avoid supination
 - E. sleep with arm raised above the heart
- ***B***

422. In pronator teres syndrome adjunctive therapy includes placing the elbow in _____ and forearm in _____.

- A. extension, supination
 - B. extension, pronation
 - C. flexion, supination
 - D. flexion, pronation
- ***C***

423. A patient with tarsal tunnel syndrome should avoid:

- A. stooping
 - B. lifting
 - C. bending
 - D. jogging
- ***D***

424. Patient presents with constricted, unreactive, and unequal pupils which also did not react to painful stimulus to the neck;

- A. ciliospinal reflex
 - B. Horner's syndrome
 - C. Argyll-Robertson pupil
 - D. Westphal's
- ***B***

425. What type of fracture is the most unstable?

- A. transverse
 - B. impacted
 - C. green stick
 - D. oblique
- ***D***

426. What is the lowest possible loss of bone density needed to detect osteoporosis on x-ray?

- A. 5%
 - B. 15%
 - C. 30%
 - D. 45%
- ***C***

427. What step does a doctor take to prevent the upper incisors from being superimposed over the odontoid process on an A-P open mouth x-ray set-up?

- A. lift the patients chin
 - B. tuck the patients chin
 - C. move the central ray 5° caudal
 - D. decrease focal film distance
- ***C***

428. Which imaging method is the best to view an aortic aneurysm?

- A. ultrasonography
 - B. angiogram
 - C. K.U.B. radiograph
 - D. lymphography
- ***A***

429. Right middle lobe syndrome is associated with:

- A. chronic pneumonia
 - B. aspiration pneumonia
 - C. pneumothorax
 - D. pulmonary fibrosis
- ***A***

430. What is the best way to visualize a mediastinal mass?

- A. air bronchogram
 - B. angiogram
 - C. CT
 - D. tomography
- ***C***

431. What is the radiologic objective of supinating the forearm on an A-P radiograph?

- A. so that the radius and ulna don't superimpose
 - B. to make the patient more comfortable
 - C. to place the olecranon directly on the film
 - D. to decrease magnification
- ***A***

432. The normal adult ADI space is:

- A. 1-3 mm
 - B. 3-5 mm
 - C. 5-7 mm
 - D. 7-8 mm
- ***A***

434. When using a 14 x 36 cassette the focal film distance to be used consistently is:

- A. 10"-20"
 - B. 20"-40"
 - C. 40"-60"
 - D. 60"-72"
- ***D***

435. Which of the following cells would least likely be affected by radiation?

- A. red blood cell
 - B. white blood cell
 - C. neuron
 - D. lymphocyte
- ***C***

436. The doctor extends and rotates the patient's head for 15-40 seconds and the patient becomes dizzy and nauseated. What test is the doctor performing?

- A. Maigne's
 - B. Adson's
 - C. Eden's
 - D. Wright's
- ***A***

437. Which of the following problems is most likely to produce a negative Patrick's?

- A. coxa femoral osteochondrosis
 - B. transient synovitis of the hip
 - C. chronic sacroiliac strain
 - D. slipped femoral epiphysis
- ***C***

438. Which of the following is the mechanism for an increase in the intrathecal pressure;

- A. compression
 - B. distraction
 - C. Valsalva's
 - D. Adson's
- ***C***

439. Increased TSH levels are seen with which condition?

- A. pituitary hypothyroidism
 - B. thyroid hypothyroidism
 - C. toxic goiter
 - D. Grave's disease
- ***B***

440. For which condition is cryotherapy contraindicated?

- A. strain
 - B. sprain
 - C. fibrositis
 - D. shock
- ***D***

441. When treating carpal tunnel with ultrasound under water, what is the correct treatment?

- A. .5 - 1.0 cm³
 - B. 2.0 - 2.5 cm³
 - C. 1.5 - 2.0 cm³
 - D. 2.0 - 2.5 cm³
- ***C***

442. Which of the following modalities is used for its bactericidal effects?

- A. ultrasound
 - B. infrared
 - C. cold quartz UV
 - D. hot quartz UV
- ***C***

443. When using ultrasound and high volt in combination, what must you be sure to do?

- A. put probe in water
 - B. put dispersal pad in water
 - C. only use pulsed because continuous doesn't work in combination
 - D. put dispersal pad on patient
- ***D***

444. What is the desired effect with infrared treatment?

- A. skin gets a pink color
 - B. patient experiences a pleasant tingling sensation in the extremities
 - C. no trauma to the patient
 - D. patient experiences profuse sweating
- ***B***

445. Ultraviolet irradiation treatment is most effective in which of the following conditions?

- A. pulmonary tuberculosis
 - B. lupus erythematosus
 - C. diabetes
 - D. psoriasis
- ***D***

446. A male patient presents with a healing fibular fracture of 12 weeks duration. He is still wearing his cast. What modality would be used taking into consideration the slow healing time?

- A. microwave or SWD
 - B. continuous ultrasound
 - C. mechanical vibration
 - D. transcutaneous electrical stimulation
- ***D***

447. A patient presents two days after an auto injury with whiplash symptoms. Which adjunctive therapy would you use? 10 seconds of cervical traction produced pain

- A. cryotherapy
 - B. moist heat
 - C. rigid cervical collar
 - D. mechanical traction
- ***A***

448. You are treating a patient with diathermy and the patient complains of hot spots. The appropriate response is to _____ the patient: apparatus distance, or _____ the intensity.

- A. decrease, increase
 - B. increase, increase
 - C. increase, decrease
 - D. decrease, decrease
- ***C***

449. A 45 year old male presents with intercostal neuritis of two weeks duration. What adjunctive therapy is contraindicated?

- A. interferential
 - B. continuous ultrasound
 - C. vibro therapy
 - D. short wave diathermy
- ***D***

450. When utilizing the Weber test, which of the following would demonstrate a complete occlusion of the right external auditory meatus?

- A. Weber's lateralizes to the left
 - B. Weber's lateralizes to the right
 - C. Weber's does not lateralize
 - D. Rinne indicates air conduction 2 times longer than bone
- ***B***

451. Severe recurrent episodes of dizziness and for 10-15 seconds following a change of position from lying down to sitting or standing is indicative of?

- A. transient ischemic attack
 - B. vertebral-basilar insufficiency
 - C. Meniere disease
 - D. benign positional vertigo
- ***D***

452. Which examination procedure produces a flow of endolymph via convection into the semicircular canal?

- A. rotation test
 - B. cold caloric irrigation test
 - C. electronystagmometry exam
 - D. vertebra basilar maneuver
- ***B***

453. A patient presents with tinnitus and vertigo where is the problem?

- A. inner ear
 - B. external ear
 - C. Eustachian tube
 - D. middle ear
- ***A***

454. A condition that is characterized by its greatest pain upon initial onset?
 A. dissecting aneurysm
 B. mild muscle strain
 C. migraine headache
 D. peptic ulcer
 A
455. A 60 year old patient presents with history of severe rheumatic fever and multiple bouts with strep throat as a child. What would be the most common sequela?
 A. osteoporosis
 B. osteoarthritis
 C. mitral valve disease
 D. aortic aneurysm
 C
456. A 35 year old male has episodes of unilateral headaches which are increased by alcohol. Other findings with the headaches are lacrimation and rhinorrhea. What type of headache is he experiencing?
 A. tension
 B. migraine
 C. cluster
 D. hypertension
 C
457. Which of the following physical findings is commonly seen with cirrhosis of the liver?
 A. spider angioma
 B. café au lait
 C. Heberden's nodes
 D. clubbing of the digits
 A
458. The Surgeon General has determined that the following substance is responsible for the most serious illness and death in this country;
 A. heroin
 B. tobacco
 C. cocaine
 D. alcohol
 B
459. Which of the following is indicative of a C6 nerve root compression?
 A. weakness of deltoid
 B. loss of sensation over the lateral aspect of the 5th digit
 C. diminished brachioradial reflex
 D. diminished triceps reflex
 C
460. In which direction do you test acromioclavicular joint play?
 A. A-P glide
 B. axial rotation
 C. abduction
 D. adduction
 A
461. In transporting an unconscious athlete it takes four people to carry him and;
 A. one to check pulse
 B. one to stabilize neck and keep it from moving
 C. one to monitor pupil dilation
 D. one to clear the way for the ambulance
 B
462. What would be associated with psoriasis?
 A. scales
 B. ulcers
 C. crusts
 D. eruptions
 A
463. Which of the following conditions would cause decreased pigmentation of the skin?
 A. vitiligo
 B. jaundice
 C. carotenemia
 D. hemochromatosis
 A
464. A man presents with red, fiery lesions on the upper extremities and trunk. The lesions are 1.5 cm in diameter with spider extensions. This is caused by:
 A. vitamin C deficiency
 B. liver cirrhosis
 C. infectious disease process
 D. vascular insufficiency
 B
465. A male patient presents with a 1cm raised pearly gray nodule on his cheek which showed occasional telangiectasis. What would you suspect?
 A. basal cell carcinoma
 B. seborrheic keratosis
 C. squamous cell carcinoma
 D. melanoma
 A
466. A patient presents with an enlarged left supraclavicular lymph node. What is the most specific test to determine the disease?
 A. lymph node biopsy
 B. upper GI series
 C. coloscopy
 D. fiber optic gastric
 A
467. Which of the following is least indicative of child abuse?
 A. hypernatremia dehydration
 B. multiple skin bruises
 C. old dislocations and fractures
 D. angry interface between the adult and the child
 D
468. Which of the following conditions is most likely to be lethal?
 A. Baastrup's
 B. osteochondritis dessicans
 C. hematogenous osteomyelitis
 D. spina bifida
 C
469. Bracing for lumbosacral region to limit flexion.
 A. lumbar corset
 B. Williams
 C. chair back brace
 D. Knight's
 C & D
470. For a post partum woman what would you do to strengthen a pelvic muscles.
 A. Kegal
 B. low impact aerobics
 C. stretching
 D. Williams
 A
471. A female presents with a swollen red mass at the fifth left costochondral junction, she has had the pain for a week, there was no trauma involved. What is the cause?
 A. Tietze's
 B. herpes zoster
 C. herpes simplex
 D. intercostal muscle pull
 A
472. What type of muscle movement or contraction could you observe with a person that was almost asleep?
 A. athetosis
 B. chorea
 C. myoclonus
 D. dystonia
 C
473. Dorsiflexion of the big toe causing an increase in sciatic type pain down the leg is _____ sign;
 A. Sicard's
 B. Gowers'
 C. Adam's
 D. Tinel's
 A
474. What muscles are responsible for main-taining a level pelvis when standing on one foot?
 A. adductors
 B. abductors
 C. rotators
 D. flexors
 B
475. Which technique emphasized adjusting on the convexity of a scoliotic curve?
 A. Grostic
 B. Gonstead
 C. Thompson
 D. Cox
 B
476. A patient presents with hypotension, intolerance to cold and a moon face. What system is involved?
 A. neurological
 B. endocrine
 C. vascular
 D. respiratory
 B
477. What is the greatest risk factor for coronary heart disease?
 A. increased triglycerides
 B. stress
 C. lack of exercise
 D. smoking
 A
478. What is the most likely diagnosis of a 60 year old female with resting tremors of her hands, slow movements and cogwheel rigidity on passive motion?
 A. hepatolenticular degeneration
 B. Huntington's chorea
 C. paralysis agitans
 D. multiple sclerosis
 C
479. A patient has sharp, colicky abdominal pain after eating fatty or fried food. The pain is most likely to be referred to which area:
 A. left side of neck above 2nd rib
 B. right upper arm
 C. tip of right shoulder
 D. right scapular tip
 D
480. A patient is being treated for a mild goiter. Which group of foods would you have the patient avoid?
 A. broccoli, cabbage and soybeans
 B. milk, cheese and eggs
 C. liver, kidney and other organ meats
 D. wheat, barley and oats
 A
481. What supplement is indicated for mild goiter?
 A. zinc
 B. Mg
 C. cobalt
 D. ascorbic acid
 B
482. What would be the most effective dietary supplement for seborrheic dermatitis?
 A. protein and essential amino acids
 B. vitamin B complex
 C. essential fatty acids
 D. oil soluble vitamins; A, D, E
 D
483. Which of the following can be used in the treatment of nervous system degeneration?
 A. vitamin A
 B. B complex
 C. vitamin K
 D. ascorbic acid
 B
484. What vitamin is best indicated for uncomplicated acne?
 A. vitamin C
 B. zinc
 C. manganese
 D. cobalamin
 B
485. Which is the most appropriate nutritional supplement for a thyroid problem?
 A. tyrosine and iodine
 B. tryptophan and B6
 C. chromium and thiamine
 D. iron and protein
 A
486. A 30 year old boxer had a fight three days ago. Now he's experiencing mid-thoracic and right shoulder pain. Which of the following would be the least likely cause?
 A. stomach disorder
 B. vertebral subluxation
 C. rib lesion
 D. liver injury
 A
487. A 17 year old male experiences syncope on exertion. Based on this information, which of the following would be most useful in ruling out idiopathic hypertrophic sub-aortic stenosis?
 A. auscultate the precordium
 B. chest x-ray
 C. echocardiogram
 D. angiogram
 C
488. A 60 year old male with chest and mid thoracic pain, cyanosis of the lips and oral mucosa and clubbing of the fingers. He also had bilateral hypertrophy of the SCM. What system was involved?
 A. endocrine
 B. cardiac
 C. respiratory
 D. vascular
 C

489. A 30 year old computer programmer complains of aches and tingling in her hands and arms after prolonged typing or holding her arms above shoulder level. During physical examination her symptoms are reproduced by holding her arm in abduction and external rotation. X-rays reveal normal cervical transverse processes at C7 bilaterally. Based on this information what is the most likely site of neurological compression?
 A. between first rib and clavicle
 B. between the anterior and middle scalene muscles
 C. beneath the pectoralis minor muscle
 D. at the edge of the cervical transverse process.
 C
490. What is the most common cause of left ventricular hypertrophy?
 A. mitral stenosis
 B. aortic stenosis
 C. pulmonary hypertension
 D. systemic hypertension
 D
491. What is contraindicated for the third trimester of pregnancy?
 A. walking in normal posture
 B. standing for long periods of time
 C. swimming before membrane ruptures
 D. pelvic tilt exercises
 B
492. In lateral flexion of the spine the motion would be in the ____ plane and around the ____ axis.
 A. horizontal:horizontal
 B. saggital:vertical
 C. frontal:horizontal
 C
493. While reducing a postero-lateral L4-L5 disc protrusion using flexion distraction cephaloid pressure is applied to what structure?
 A. L4 transverse
 B. L4 spinous
 C. L5 transverse
 D. L5 spinous
 B
494. The vertical innominate angle is increased due to increase in the muscle strength of what muscle group?
 A. quadiceps
 B. biceps femoris
 C. adductor muscles
 D. abductor muscles
 A
495. The designation of the spatial orientation of one vertebra in relation to the adjacent segments is know as:
 A. static listing
 B. lesion
 C. lordosis
 D. dynamic listing
 A
496. With an extension injury of a rear end collision, what kind of strain would you suspect?
 A. scalenes and SCM
 B. trapezius and deltoid
 C. splenius capitus and cervicis
 D. pectoralis major and minor
 A
497. A 4 year old boy complains of sore throat and fever. He also has swollen lymph nodes and the tip of his spleen is palpable. A throat culture and fast slide (Monospot) are negative. What other test should be performed?
 A. heterophil
 B. Epstein Barr
 C. cervical x-ray
 D. bone marrow examination
 A
498. A disc protrusion affecting the extensor hallucis longus muscle will result in which o f the following?
 A. inability to walk on heels
 B. weakness of calf muscle
 C. positive Chaddock's
 D. ankle clonus
 A
499. Spontaneous muscle spasms intermittent muscle contractions associated with wry neck deformity may be due to;
 A. spasmodic torticollis
 B. acquired torticollis
 C. Klippel-Feil syndrome
 D. fibrositis
 A
500. What symptoms are present in a ventral nerve root lesion?
 A. sensory loss
 B. deep tendon hyperreflexia
 C.
 D. flaccid paralysis of muscles
 D
501. Absence of light reflex would be found with:
 A. syncope
 B. alcoholic toxication
 C. metabolic coma
 D. structural brain lesion
 D
502. A 65 year old male patient complains of flu like symptoms and a "constant headache unlike any I've ever had." These symptoms have lasted 6 weeks. He also reported an incidence where he lost vision in his left eye for 15 minutes. He has pain in his jaw on chewing. This is most likely:
 A. temporal arteritis
 B. herpetic encephalitis
 C. subdural hematoma
 D. TMJ syndrome
 A
503. Upon examination of a patient with knee injury a painful click is felt on extension of leg from flexed position with foot in external rotation. What is the sight of injury?
 A. lateral meniscus
 B. medial meniscus
 C. anterior cruciate
 D. posterior cruciate
 B
504. 83 year old female has severe left lower quadrant pain, low back pain, nausea and vomiting. Her abdomen is distended but compressible with frequent bowel sounds. A KUB film shows proximal dilation of ascending, transverse and descending colon. Of the following which is the most appropriate next step in case management?
 A. colonoscopy
 B. gastric lavage
 C. Chiropractic adjustment
 D. hemicolectomy
 A
505. Patient complains of low back pain, which of the following conditions would most warrant oblique x-rays of the sacroiliac joint:
 A. severe low back pain following a recent trauma
 B. Incapacitating low back pain with history of metastatic disease
 C. low back pain with decreased nerve conduction
 D. low back pain of insidious onset with a decreased lung excursion in a young male patient
 D
506. What lab finding would be diagnostic of inflammation?
 A. <11,000 WBC
 B. increased ESR
 C. decreased C-RP
 D. PMN <3% band
 B
507. Which condition has the highest increase in WBC count?
 A. polycythemia
 B. chronic myelogenous leukemia
 C. acute lymphocytic leukemia
 D. possible mononucleosis?
 B
508. What will show a decreased urine specific gravity?
 A. viral
 B. dehydration
 C. acute fever
 D. chronic nephrosis
 A
509. A 12 year old male patient presents with hematuria and has increased RBC casts. What should be the initial screening test?
 A. ASO titre
 B. LDH determination
 C. cystic evacuation
 D. intervenous pyelogram
 A
510. A fifty year old female presents with a generalized osteopenia from plain film x-ray. Hematology studies indicate a mild normocytic anemia and an elevated ESR. What test would you do next?
 A. serum immunoelectrophoresis
 B. serum acid phosphatase
 C. routine urinalysis
 D. cerebrospinal fluid analysis
 A
511. Total serum protein is increased the most in which of the following:
 A. multiple myeloma
 B. Hodgkin's disease
 C. myelogenous leukemia
 D. peptic ulcer
 A
512. Patient is a 45 year old male with history of mitral stenosis. He now has a temperature of 104°, tender nodules on toes and fingers and small hemorrhages of skin and retina. He is currently taking no medication. Which test should be performed?
 A. E.L.I.S.A. test
 B. VDRL test
 C. RA latex
 D. ASO titre
 D
513. A 27 year old white female presents herself for a physical. Her only complaint is of moderate fatigue. She has no signs of infection, gastrointestinal complaints, melena or hematochezia. Physical finding of pale conjunctiva. CBC 3.72 MCV 71 MCHC 26. With these finds what is the most likely cause?
 A. decreased TIBC
 B. increased alpha Hb
 C. decreased serum ferritin
 D. increased beta Hb
 C
514. A 34 year old male patient presents with left flank pain that began a few hours ago. The patient denies any occurrence of diarrhea, constipation, fevers or chills. He states that he has been pacing the floor constantly trying to find a comfortable position that relieves the pain. The pain is described as sharp and stabbing and occurs in waves or paroxysms. Based on these findings what would be your initial diagnosis?
 A. nephrolithiasis
 B. multiple myeloma
 C. irritable bowel syndrome
 D. acute hepatitis
 A
515. What lab test would be the most appropriate to run initially?
 A. urinalysis
 B. CBC
 C. Bence Jones
 D. possible stool sample
 A
516. What lab findings would you most likely expect to find based on your information so far?
 A. pH 7.1, few RBC's, few WBC's and trace casts
 B. 4.7×10^6 RBC's, 11,000 WBC's
 C. ESR=9m/hr
 D. Stool smear = shows few polymorpholeukocytes
 A
517. What other incidental findings would you likely see?
 A. brownish urine
 B. pain is relieved by a high fiber diet
 C. pain moves into the left hypochondriac region
 D. urgency and pain upon urination
 D
518. A 46 year old female is a known hypochondriac who uses her illnesses to avoid social responsibility, to explain failures and to protect self-esteem. Which of the following evaluation methods would identify this condition and ensure a prompt referral to a psychologist?
 A. Minnesota Multiphasic Personality Inventory
 B. Stanford Binet
 C. Harvard Profile
 D. Rorschach
 A
519. Patient presents with posterior neck numbness and pain radiating to the ear and mastoid. The patient has normal deep tendon reflexes in the upper extremity. What disc is involved?
 A. C2/C3
 B. C3/C4
 C. C4/C5
 D. C5/C6
 A

520. Pain when getting up from seated position and pain when walking upstairs.

- A. intra patella bursitis
- B. femoral patellar arthralgia

B

521. A 23 year old male with low back pain and pain in the right thigh and knee. He is holding his leg in flexion, abduction and external rotation. He has malaise and bouts of chills and sweating. Which is least likely to be used?

- A. x-ray
- B. CBC
- C. VA
- D. EMG

D

522. A male patient suffers from claudication, impotence, cold extremities. He likely suffers from:

- A. neurogenic claudication
- B. vascular claudication
- C. S2

B

523. In which condition would you see a CT. scan that reveals radiolucent lesions within the white matter of the brain?

- A. multiple sclerosis
- B. diabetic neuropathy
- C. Alzheimer's

C

524. Which is pictured in the diagram above?



- A. ectropion
- B. exophthalmos
- C. xanthelasma
- D. pinguecula

A

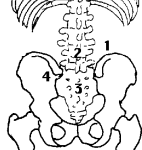
525. Where are the sensory neurons located?



- A. 1
- B. 2
- C. 3
- D. 4

B

526. Where would pain be located in the case of quadratus lumborum sprain?



- A. 1
- B. 2
- C. 3
- D. 4

A

527. What diagram represents a double major compensated scoliosis?



528. Which area of the spine is indicated below?



- A. cervical spine
- B. mid thoracics
- C. lower lumbar
- D. upper lumbar

B

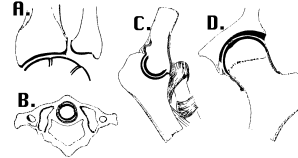
529. In the normal adult what would be the measurement between A and B?



- A. 1/2 inch
- B. 2 inches
- C. 4 inches
- D. 6 inches

B

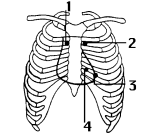
530. (Four pictures of joint types) What type of joint is type B;



- A. ball and socket
- B. ellipsoidal
- C. hinge
- D. pivot

D

540. Where can the tricuspid valve be auscultated the best?



4

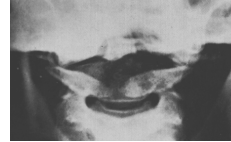
541. Weakness of which muscles increases angle D



- A. adductor magnus
- B. biceps femoris
- C. quadriceps femoris
- D. tensor fascia lata

B

542. A 30 year old female tripped and fell over a curb with no trauma to the head or neck. What is your finding?



- A. spina bifida C1
- B. Jefferson's
- C. C1 rotatory subluxation
- D. C2 dens fracture

A

543. Identify the condition in the radiograph below;



- A. posterior arch agenesis C1
- B. basilar impression
- C. dens fracture
- D. Jefferson's

A

544. An 18 year old male presents with cervico-thoracic pain and occasional tingling in the arms. What is indicated on x-ray?



- A. hemivertebra
- B. spina bifida occulta
- C. Pancoast tumor
- D. bilateral cervical rib

D

545. Based on the radiograph below, to whom should you refer this patient?



- A. oncologist
- B. neurologist
- C. orthopedist
- D. rheumatologist

A

546. A 27 year old female presents with pathological proximal femur head fracture. Also lucent ground glass appearance well margined with thin cortical border. Radiological report showed mixed fibrous and osseous cells. No evidence of mitosis or neoplasm.



- A. multiple myeloma
- B. metastatic adenocarcinoma
- C. fibrous dysplasia
- D. solitary unicameral lesion

C

547. A 50 year old male presents with a history of 6 months of low back pain and 6 weeks of urinary incontinence. Which would most likely cause the abnormality viewed in the radiograph above?



- A. osteoblastic metastatic carcinoma
- B. giant cell
- C. multiple myeloma
- D. Paget's

A

548. A 30 year old female presents with hip pain, she has been on steroid therapy for the pain for 10 years. The most likely etiology for the unusual appearance of the coxa femoral joint is?



- A. congenital acetabular agenesis
 - B. tuberculosis of the hips
 - C. bilateral avascular necrosis of the femoral heads
 - D. bilateral gouty arthritis of the hips
- ***C***

549. Which of the following is the most common cause of iatrogenic bowel obstruction?

- a. oral contraceptives
 - b. antibiotics
 - c. NSAID
 - d. narco-analgesics
- ***D***

550. Which of the following does not cause acute skin eruptions?

- a. drug use
 - b. food allergy
 - c. contact dermatitis
 - d. syphilis
- ***D***

551. What is the most common cause of falls in the elderly?

- a. Parkinson's
 - b. senile macular degeneration
 - c. Vitamin B-12 deficiency
 - d. temporal arteritis
- ***B***

552. An obese 21 year old female presents with hypertension, polyuria, and muscle weakness. Lab shows potassium depletion and hypokalemic alkalosis. The most probable diagnosis is;

- a. ankylosing spondylitis
 - b. aldosteronism
 - c. cirrhosis
 - d. colitis
- ***B***

553. Which of the following when associated with anemia is indicative of hemolytic anemia?

- a. uremia
 - b. jaundice
 - c. waxy skin
 - d. pica
- ***B***

554. A 45 year old male presents with mid thoracic pain that radiates laterally about 6 inches from the spine. Which of the following worsens the prognosis for a complete uncomplicated recovery?

- a. family history of back pain
 - b. happened while lifting boxes
 - c. muscle spasms accompanied initial symptoms
 - d. this has happened before
- ***D***

555. Which of the following is the most common sequela to atrial fibrillation?

- a. cerebrovascular accident
 - b. aortic aneurysm
 - c. aortic stenosis
 - d. mitral valve prolapse
- ***A***

556. A 53 year old female complains of recurring episodes of syncope. She is asked if the episodes are preceded by a prodromal phase. Her answers to questions will help to distinguish between syncope of cardiovascular origin or _____ origin;

- a. traumatic
 - b. neurogenic
 - c. congenital
 - d. metabolic
- ***B***

557. A patient presents with headaches, visual disturbances and vertigo. This is characteristic of what type of problem?

- A. rheumatological
 - B. neurological
 - C. endocrinological
 - D. pulmonary
- ***B***

558. Which of the following is suspected with a palpable mass on the anterior aspect of the neck that rises on swallowing?

- A. thyroglossal cyst
 - B. carotid artery aneurysm
 - C. carotid tubercle tumor
 - D. lymphadenopathy
- ***A***

559. In addition to the information obtained from the parents, what is the youngest age that a relevant case history can be obtained from a youth?

- A. 1
 - B. 5
 - C. 10
 - D. 15
- ***B***

560. A 30 year old white male presents with a painless mass on his right testicle. The best working diagnosis is?

- A. epididymitis
 - b. orchitis
 - c. varicocele
 - d. testicular tumor
- ***D***

561. In the diagnosis of a patient with cataracts, which aspect of the examination would be most revealing?

- a. ophthalmoscopic examination
 - b. pupillary reflex
 - c. peripheral vision
 - d. accommodation reflex
- ***A***

562. All of the following have scales on the scalp except;

- a. psoriasis
 - b. seborrheic dermatitis
 - c. tinea unguium
 - d. tinea capitis
- ***C***

563. While palpating the lymph nodes, which would represent the most severe clinical consequence?

- a. small node
 - b. soft node
 - c. hard node
 - d. mitral node
- ***C***

564. Which of the following may be a reversible eye disorder?

- a. cataract
 - b. macular degeneration
 - c. progressive myopia
- ***A***

565. A 65 year old woman presents with left lower quadrant pain and rebound tenderness. She recently noted blood coated stools and a history of chronic constipation. This is suggestive of?

- a. diverticulitis
 - b. Crohn's disease
 - c. irritable bowel syndrome
 - d. gastroenteritis
- ***A***

566. A 6 year old male was brought into the office by his mother. He awoke with a 102° fever painful swallowing and a sore throat. There was tenderness in the sub-mandibular area and the angle of mandible was obliterated due to swelling unilaterally. This is likely to be;

- a. peritonsillar abscess
 - b. Hodgkin's
 - c. acute pharyngitis
 - d. mumps
- ***D***

567. A 35 year old female comes in complaining of chest pain. She uses hand gestures to describe the pain. Which of the following would describe angina pectoris?

- a. point to small area on heart
 - b. move hands up and down from epigastric region to cheek
 - c. move hands back and forth from inferior rib border
 - d. places clenched fist over sternum
- ***D***

568. Patient with liver cirrhosis has a 3 mm red spot of the skin. How would you differentiate between petechiae and telangiectasis?

- a. palpation for surface irregularity
 - b. illuminate for irregularity
 - c. illuminate with black light for fluorescence
 - d. apply pressure with a glass slide for blanching
- ***D***

569. A 36 year old female presents with tinnitus, headaches, dizziness and vertigo. She has been taking Nalfon Forte for six months for arthritis. What should you suspect?

- a. salicylate poisoning
 - b. liver disease
 - c. splenic disease
 - d. kidney failure
- ***D***

570a. 38 year old male patient presents with low back and leg pain after a violent sneeze three weeks ago. Physical exam shows (+) Laseque's pain at 30° and +Kemp's on the left, leg extension increased pain, flexion decreased pain. There are decreased reflexes and muscle strength is +4 on the left. All other reflexes are normal. Patient presents with a forward and lateral flexion antalgia to the right. What is possible diagnosis?

- a. disc lesion
 - b. canal stenosis
 - c. facet syndrome
 - d. lumbosacral sprain strain
- ***A***

571a. What confirms diagnosis?

- a. CT
 - b. thermograph
 - c. alkaline phosphatase
 - d. acid phosphatase
- ***A***

527. Atrophy of the interosseus muscles of the hand will present with what appearance on the palmar surface.

- a. flat
 - b. contoured
 - c. cyanotic
 - d. swollen
- ***B***

573. Woman presents with a history of urinary calculi, kidney, bladder and ureter infection. What is least likely to cause her pain on urination?

- a. urinary calculi
 - b. cystitis
 - c. nephritis
 - d. ureteritis
- ***C***

574. A 21 year old afebrile female presents with severe headache of sudden onset of one day duration. The headaches started temporally, moved to the occipital region and now encompasses the entire head. She also has drowsiness, confusion, and motor changes of left side of body. What is the most likely diagnosis?

- a. encephalitis
 - b. temporal arteritis
 - c. basilar migraine
 - d. subarachnoid hemorrhage
- ***D***

575. Small yellow spots commonly found in the mouth in adult suggest?

- a. ulcer
 - b. sebaceous gland
 - c. Koplik spots
- ***B***

576. A 65 year old male presents with acute pain, edema, and redness of the knee. He has chills and sweating. There is no history of trauma. Two weeks ago he had surgery for the removal for a rectal cyst. One week ago radiographs taken by another physician revealed no pathology. The likely diagnosis would be?

- a. rheumatoid arthritis
 - b. osteoarthritis
 - c. infrapatellar bursitis
 - d. hematogenous osteomyelitis
- ***D***

577. A 65 year old male presents with low back and right leg pain that is described as deep and throbbing. Examination reveals (-) SLR and (-) Braggard's. Normal deep tendon reflexes. X-ray reveals increased sclerosing of L4 and decreased disc height throughout lumbar spine. Lab reveals increased acid phosphatase. Based on the information, what is the diagnosis?
 a. Paget's
 b. metastatic carcinoma
 c. joint dysfunction
 d. lumbar disc lesion
*****B*****
578. A 72 year old female presents with headache radiating into the region of the jaw of three weeks duration. Erythrocyte sedimentation rate was 102 mm. Based upon the presenting information, what diagnostic test would be appropriate?
 a. CAT
 b. angiography of carotid artery
 c. temporal artery biopsy
 d. dental x-rays
*****C*****
579. A 45 year old male presents with central chest pain one hour after exercising. He is in your office for exam 5 hours after onset still with chest pain. He also has low back pain and is weak and nauseated. EKG; ST elevation at V1 & V3, no Q wave changes. CPK elevated. Pain radiates into neck but not into either arm.
 a. acute MI
 b. variant angina
 c. stable angina
 d. reflux esophagitis
*****A*****
580. Which of the following will cause re-vascularization of the eye?
 a. choroiditis
 b. glaucoma
 c. diabetes mellitus
*****C*****
581. In a case of essential hypertension due to vascular obstruction, which area should you assess?
 a. eyes
 b. buccal mucosa and mouth
 c. finger tips
 d. proximal extremities
*****C*****
582. A 60 year old male presents with painful red swelling in the left distal metacarpal-phalangeal joint. Which of the following can be ruled out?
 a. septic arthritis
 b. rheumatoid arthritis
 c. gout
 d. osteoarthritis
*****D*****
583. Which of the following conditions may cause a significant increase of the erythrocyte sedimentation rate?
 a. osteoarthritis
 b. multiple myeloma
 c. polycythemia vera
 d. angina pectoris
*****B*****
584. Which of the following is a likely consequence of long term antipsychotic medication?
 a. syringomyelia
 b. tardive dyskinesia
 c. multiple sclerosis
 d. poliomyelitis
*****B*****
585. In a diabetic patient, which is the best method to assess the long term effectiveness of insulin therapy?
 a. glucose tolerance test
 b. glycosylated hemoglobin
 c. fasting blood sugar
 d. serum amylase
*****B*****
586. An auscultatory sound was heard at the second right intercostal space. There was pain radiating to the axilla. This suggests;
 a. aortic stenosis
 b. mitral stenosis
 c. mitral regurgitation
 d. pulmonic stenosis
*****A*****
587. Which of the following would not have hyperactive bowel sounds?
 a. early obstruction
 b. peritonitis
 c. gastroenteritis
 d. diarrhea
*****B*****
588. Tenderness and a suprapubic mass would be most indicative of?
 a. inguinal hernia
 b. cystitis
 c. prostatic hypertrophy
 d. renal vein thrombosis
*****B*****
589. A 60 year old woman presents with a history of renal calculi and pink urine. Which of the following would this most suggest?
 a. kidney stones
 b. nephrosis
 c. cystitis
 d. urethritis
*****A*****
590. Gross hematuria would most likely be due to?
 a. pyelonephritis
 b. bladder tumor
 c. glomerulonephritis
*****C*****
591. An inguinal hernia will most likely be palpated in which area?
 a. iliac crest
 b. femoral triangle
 c. greater trochanter
 d. sciatic nerve
*****B*****
592. A 16 year old male is brought into your office by his teammate with headache and confusion. During a football game he was hit and lost consciousness. Which question would be the most important to ask this patient?
 a. How hard were you hit?
 b. How long were you unconscious?
 c. Have you had headaches before?
 d. Have you had disequilibrium before?
*****B*****
593. The most common organism associated with pyogenic spondylitis?
 a. streptococcus pyogenes
 b. staphylococcus aureus
 c. pneumococcus
 d. E. Coli
*****B*****
594. On otoscopic examination, serous otitis media would be demonstrated by;
 a. amber colored fluid with air bubbles behind the tympanic membrane
 b. tympanic membrane is dull with red-grey appearance with obstructed ossicles
 c. tympanic membrane is fiery red with obliterated ossicles
 d. tympanic membrane is firm and the cone of light is distorted
*****A*****
595. Dullness on percussion and absence of vocal fremitus suggests?
 a. pleurisy
 b. lung abscess
 c. lung obstruction
 d. lobar pneumonia
*****B*****
596. A black male with a history of hypertension presents with sudden onset of chest pain from his throat to the epigastrium but does not radiate into the arm. He feels like his body is being torn in half. The blood pressure on the right is normal, low on the left. In the lower extremities the B.P. is equal, and the carotid pulse is decreased.
 a. abdominal aneurysm
 b. dissecting aneurysm
 c. myocardial infarct
*****B*****
597. When a patient presents with Down's syndrome, ankylosing spondylitis, rheumatoid arthritis, psoriatic arthritis or Reiter's syndrome, which x-ray would be necessary before a chiropractic adjustment is initiated?
 a. pillar
 b. cervical oblique
 c. lateral cervical flexion/extension
 d. neutral lateral cervical
*****C*****
598. A mass in the anterior superior mediastinum on a lateral chest x-ray is likely to be a;
 a. teratoma
 b. neurofibroma
 c. leiomyoma
 d. neuroblastoma
*****A*****
599. What is not an extradural tumor?
 a. neurinoma
 b. lipoma
 c. leiomyoma
 d. chondroma
*****A*****
600. Which skull view is taken with the patient supine using a 35° caudal tube tilt?
 a. A-P cervical
 b. Water's
 c. Towne's
 d. submentovertico
*****C*****
601. Surgical intervention is indicated when an aortic aneurysm on a lateral lumbar film reaches what dimension?
 a. 2 cm
 b. 3 cm
 c. 4 cm
 d. 5 cm
*****D*****
602. Upon evaluating a patient with Down's syndrome, the lateral cervical radiograph may reveal _____, as a result of the absence of _____ ligament.
 a. atlanto-axial instability/ transverse
 b. atlanto-occipital instability/ transverse
 c. basilar impression/ dentate ligament
 d. ponticulus posticus/ atlanto-occipital
*****A*****
603. The optimum temperature for the chemicals in manual x-ray processing is;
 a. 58°
 b. 68°
 c. 72°
 d. 80°
*****B*****
604. What is the correct FFD for a chest radiograph?
 a. 36"
 b. 40"
 c. 60"
 d. 72"
*****D*****
605. Klein's line is used in the evaluation of which of the following?
 a. Legg-Calve-Perthe's
 b. slipped capital femoral epiphysis
 c. congenital hip dislocation
 d. protrusio acetabuli
*****B*****
606. The Maximum Permissible Dose for a 25 year old occupational worker is;
 a. 15 REM
 b. 25 REM
 c. 35 REM
 d. 45 REM
*****C*****
607. Which of the following is the most stable fracture?
 a. hangman's fracture
 b. bilateral facet dislocation
 c. posterior arch fracture
 d. hyperextension fracture with dislocation
*****C*****
608. Which of the following would best visualize the right C5-C6 IVF?
 a. left cervical articular pillar
 b. cervical anterior oblique
 c. cervical left posterior
 d. left lateral cervical
*****B*****
609. Because of the multiple non-segmentation or congenital block of vertebral bodies in _____, adjustments of the _____ region of spine is contraindicated,
 a. Klippel-Feil; cervical
 b. Sprengel's; thoracic spine
 c. acromegaly; cervical spine
 d. McCune-Albright syndrome; thoracic spine
*****A*****
610. The normal measurements of the ADI in the adult should be _____ mm; and in the child _____ mm.
 a. 1-2; 1-5
 b. 1-3; 1-5
 c. 1-5; 1-7
 d. 1-7; 1-9
*****B*****

611. In a hyperflexion/hyperextension injury to the cervical spine, which of the following radiographs must be taken?
a. AP lower, lateral cervical and obliques
b. AP open mouth, AP lower cervical
c. full Davis series
d. AP and lateral cervical
*****C*****
612. At what age will there be union of the epiphysis of lesser trochanter to the shaft of the femur?
a. 14
b. 16
c. 18
d. 20
*****C*****
613. A 55 year old female presents with mid-thoracic pain, hyperkyphosis and decreased ranges of motion. X-rays reveal a generalized radiolucency of the vertebral bodies. Laboratory findings; normal serum calcium, phosphorus and alkaline phosphatase. What is most suggested by these findings?
a. osteoarthritis
b. osteomalacia
c. osteoporosis
d. discogenic spondylitis
*****C*****
614. Codman's reactive triangle is caused by;
a. cortical thinning
b. periosteal new bone formation
*****B*****
615. On a cervical oblique, lateral thoracic and lumbar, which structures would best be seen?
a. pars
b. pedicle
c. IVF
d. articular pillars
*****C*****
616. How do you make a patient with facet syndrome comfortable when lying prone?
a. pillow under the shins
b. pillow between the knees
c. pillow under the abdomen
d. pillow under the thighs
*****C*****
617. Which of the following is characterized by intractable back pain accompanied by increasing neurological signs unrelated to body position?
a. myositis
b. disc lesion
c. tumor
d. facet syndrome
*****C*****
618. If a scoliosis on a 30 year old male does not correct on following lateral bending films, the curve is considered _____, and will possibly be _____.
a. reversible; slowly progressive
b. irreversible; slowly progressive
c. reversible; rapidly progressive
d. irreversible; rapidly progressive
*****B*****
619. A local bulge along the midline of the long axis of a muscle would most likely indicate;
a. local hypertrophy
b. malignancy
c. parasitism
d. rupture
*****D*****
620. Which of the following tests is specific for costoclavicular syndrome;
a. Allen's
b. Codman's
c. Adson's
d. Eden's
*****D*****
621. What is the best method in the differential diagnosis of a recurrent disc herniation from a post-surgical scar tissue?
a. discography
b. myelography
c. MRI
d. CT
*****C*****
622. Which of the following areas will have the most traction on the straight leg raiser test?
a. L2-3
b. L3-4
c. L4-5
d. L5-S1
*****D*****
623. A 45 year old female presents with numbness in right hand on thumb and index fingers. Her hand becomes painful at night with radiating pain into the elbow. She's a part time secretary and knits 2-3 hours a day. The symptoms have been getting worse in the last four months. What is the most likely cause of her symptomatology?
a. neuroma
b. ganglion
c. herniated C4-C5 disc
d. carpal tunnel syndrome
*****D*****
624. A basketball player presents with pain in the knee. The injury occurred during a game where he planted his foot and internally rotated the femur on a fixed tibia.
a. anterior cruciate
b. medial collateral ligament
c. lateral semilunar cartilage
d. medial meniscus
*****D*****
625. A 21 year old male day nature walker presents with localized, non-radiating left lumbar pain initially relieved by light activity but aggravated by continued activity. From the above information alone what problem can be eliminated?
a. muscular pathology
b. ligamentous injury
c. disc prolapse
d. spondylitis
*****D*****
626. Which muscle is weakened with knock knees?
a. gluteus minimus
b. gluteus maximus
c. piriformis
*****A*****
627. When palpated from origin to insertion, what muscle is the longest?
a. sartorius
b. gastrocnemius
c. vastus medialis
d. biceps femoris
*****A*****
628. Upon testing for lateralization, the tuning fork is placed on vertex of the midline of the skull. This test is;
A. Chvostek's
b. Rinne's
c. Weber's
d. Homan's
*****C*****
629. A 17 year old male presents with left calf pain that occurred when he was hit by a steel door on the back of his calf. He has no Achilles reflex and cannot toe walk. There is tenderness and a painful swelling at the medial aspect of the calf. Which test would be useful in his case;
a. Thomas'
b. Drawer's
c. Goldthwait's
d. Thompson's
*****D*****
630. A 45 year old woman presents with pain in the arm, shoulder and hand. The hand was shiny, swollen, edematous, and cyanotic. Which of the following conditions is suggested by the findings?
a. carpal tunnel syndrome
b. shoulder-hand syndrome
c. thoracic outlet syndrome
d. cervical discopathy
*****B*****
631. Which test would be used to differentiate between a muscular strain and IVF encroachment of the cervical spine?
a. Soto-Hall
b. cervical distraction
c. Adson's
d. Spurling's
*****B*****
632. Which of the following would a supported Adam's test be used to differentiate?
a. anatomical vs. a functional scoliosis
b. lumbosacral vs. sacroiliac lesion
*****B*****
633. In a patient over 30 years of age, which of the following would not be a cause of low back pain?
a. increased facet loading
b. increased turgor and nucleus pulposus hydration
c. motion increases from the lower to the upper lumbar spine
*****B*****
634. Which of the following is NOT applicable in a case of cervical IVF encroachment or nerve root involvement?
a. cervical compression
b. cervical distraction
c. maximum cervical compression
d. Yeoman's
*****D*****
635. What is a mechanical cause of leg pain?
a. hypocalcemia
b. neurogenic claudication
c. overexertion
*****C*****
636. To enhance the patellar reflex, the doctor instructs the patient to grasp his hands together with fingers flexed and pull apart as hard as he can. This is known as the _____ maneuver.
a. Leopold's
b. Ritger's
c. Jendrassik's
d. Valsalva's
*****C*****
637. Which joint structure does not have a nerve supply?
a. ligament
b. tendon
c. meniscus
d. periosteum
*****C*****
638. Sensation to the ulnar side of the elbow is innervated by which spinal nerve?
a. C3
b. C7
c. T1
d. T3
*****C*****
639. Pain radiating to the anterolateral aspect of the foot and leg suggest involvement of which nerve?
a. L2
b. L3
c. L4
d. L5
*****D*****
640. Patient comes in complaining of anterior thigh pain from the inguinal area to the knee. He can flex and extend his knee but cannot raise his knee to his chest when seated;
a. L1
b. L2
c. L3
d. T11
*****B*****
641. Using the Van Allen index, a muscle that has full range of motion with gravity eliminated is considered to be?
a. 5
b. 4
c. 3
d. 2
*****D*****
642. A 35 year old male presents with low back pain after lifting a heavy box. The pain is midline and radiates down the right posterior thigh to the knee. Reflexes were 2+ bilaterally at the patella, 2+ Achilles on the left, 0 on the right with weak plantar flexion on the right. Your most likely diagnosis is a disc protrusion at which level?
a. L1-L2
b. L2-L3
c. L3-L4
d. L4-L5
e. L5-S1
*****E*****
643. Which of the following is a serious neurological sign and cause for immediate referral?
a. vertical nystagmus
b. (+) Weber's
c. decreased accommodation
*****A*****
644. Why would you want to ask about vertical and horizontal nystagmus?
a. integrity of the cranial nerves
b. severity of the problem
c. malingerer
*****B*****

645. Which cranial nerve is involved with turning the head and shrugging the shoulder?
a. abducens
b. spinal accessory
c. vagus
d. trigeminal
*****B*****
646. What reflex has both somatic and visceral components?
a. jaw reflex
b. ciliospinal
c. patellar
*****B*****
647. What is the clinical description of nerve pain?
a. gnawing
b. burning
c. aching
d. stabbing
*****D*****
648. The most common direction for a scapula subluxation is;
A. anterior
B. posterior
C. lateral
D. medial
*****C*****
649. Misalignment of the proximal ulna most commonly occurs in which direction;
A. posterior; lateral
B. posterior; medial
C. anterior; medial
D. anterior; lateral
*****B*****
650. Flexion of the wrist occurs almost exclusively at the ____ joint?
A. radiocarpal
B. mid-carpal
C. radioulnar
D. ulnomeniscotriquetral
*****B*****
651. The adjustive thrust occurs in the ____ of zone of joint motion;
A. active
B. passive
C. para-physiological
D. pathological
*****C*****
652. The adjustment force that causes ligamentous damage is in the _____ zone.
a. active
b. passive
c. para-physiological
d. pathological
*****D*****
653. In differentiating between a mobilization and a manipulation of a joint, in mobilization it occurs in the ____ boundaries; whereas manipulation occurs within the ____ boundaries.
a. active; passive
b. passive; para-physiological
c. passive; pathological
d. para-physiological; pathological
*****B*****
654. What is the term for overall mechanical alteration;
a. displacement
b. distortion
c. misalignment
d. distraction
*****B*****
655. Which of the following physiological effects of chiropractic adjustments addresses the phylogenic?
a. the adjustment maintains normal myotonic and structural integrity of man as biped
b. the adjustment maintains normal reflexes
c. the adjustment maintains normal autonomies
d. the adjustment maintains normal viscerosomatic
*****A*****
656. With a right scoliosis and posterior rotation of transverse of L5 on the left, where do you contact with a reinforced pisiform contact?
a. left pisiform on right side spinous
b. left pisiform on left side spinous
c. left pisiform on right side mammillary
d. left pisiform on left side mammillary
*****A*****
657. A patient presents with muscle pain. She also has scanning speech, intention tremors and nystagmus. Her MD told her he could just help her with symptomatic relief. What would your care include;
a. chiropractic adjustments and ROM exercise
b. chiropractic adjustments and hot baths
c. chiropractic adjustments and aerobic exercise
d. mobilization and heat
*****A*****
658. In a patient who presents with an inferior rib subluxation, which of the following would be expected?
a. increased intercostal space above rib
b. decreased intercostal space below rib
c. deep inhalation is painful
d. area above the rib space is painful
*****D*****
659. Which area of the spine is important in afferent feedback and postural changes?
a. cranial sacral
b. costovertebral
c. sacrococcygeal
d. iliofemoral
*****A*****
660. On a lateral analysis, which of the following structures will the plumbline NOT fall through;
a. external auditory meatus
b. lumbar vertebral bodies
c. posterior to the axis of the knee
d. anterior to the lateral malleolus
*****C*****
661. For the majority of patients with a spondylolisthesis, chiropractic adjustments are ____;
a. contraindicated, since most of the patients with spondylolisthesis have structural instability
b. indicated, due to the benefits of relocation of the anterior translation
c. contraindicated, since most of the patients with spondylolisthesis have neurological deficits
d. indicated due to the concurrent sacroiliac and lumbar facet subluxation
*****D*****
662. An acutely intoxicated 23 year old male enters with multiple cranial abrasions and neck with stiffness. He is holding his head with his hands but has no complaint of pain. His friends say he fell down a short flight of stairs at a party and landed on his head. What is the appropriate initial treatment?
a. adjust him
b. take x-rays
c. re-schedule him and tell him to return when sober
d. refer to hospital
*****B*****
663. A 32 year old male reports of low back pain after hiking two days prior. The pain is worse on motion and subsides at rest. He points to a generalized non-specific region over the left lumbosacral region. How would you manage this case?
a. send to orthopedic specialist
b. treat muscular injury
c. treat joint instability
d. send to neurologist
*****B*****
664. A 68 year old male presents with low back pain radiating pain down the right leg with numbness and loss of strength. He cannot heel walk on the right. Radiographic examination reveals a degenerative scoliosis with anterior slippage of L5. Which health care professional would be most appropriate to consult before adjusting?
a. cardiologist
b. urologist
c. neurosurgeon
d. physiotherapist
*****C*****
665. A 53 year old shipping clerk presents with low back and right buttock pain that began the previous day after heavy lifting. Examination reveals moderate limited lumbar range of motion, paraspinals and gluteal muscle spasm, subluxation of L5 and the right sacroiliac joint. Straight leg raising reproduces the lumbar and right buttock pain. Neurologic exam of the lower extremity is negative. Lateral / AP lumbar x-rays reveal moderate discogenic spondylosis of L5-S1. What is the appropriate case management?
a. referral to a neuro surgeon
b. chiropractic adjustment
c. TENS
d. hot packs
*****B*****
666. 18 year old male presents with acute left leg pain. One week ago he jumped off a grain truck to the ground and landed on his leg. X-rays were negative for pathology or fracture. The left leg is still swollen and tender with a palpable mass, but there is discoloration. There is pain with weight-bearing. What is the initial case management?
a. re x-ray
b. refer to an orthopedist
c. ice and elevate
d. radionuclide scan
*****A*****
667. An 18 year old baseball player presents with pain in the shoulder in the area of the biceps 24 hours after exercise, especially on abduction. What is your recommended management of the patient?
a. apply heat after every game
b. adjust the extremities and take him off the pitching rotation for 2 weeks
c. patient warms up and proper stretching before every game
*****C*****
668. With a patient with carpal tunnel syndrome, which regimen is not recommended?
a. wrist mobilization
b. occupational correction if necessary
c. exercises to strengthen the flexors of the wrist
d. cock-up splint
*****C*****
669. A 43 year old male painter presents with fatigue, discoloration of the gums, pallor and headache. What question on the case history would be important?
a. Have you been to Mexico?
b. Do you use lead paints?
c. Do you eat iron rich food?
*****B*****
670. A 19 year old male presents with mid thoracic pain. Visual inspection shows a hyperkyphotic spine. There is no history of trauma. What is the best initial management?
a. refer to an orthopedist
b. radiographic examination
c. perform orthopedic exam
d. run a CBC and UA
*****B*****
671. A 30 year old male presents with pain following a short nature hike. Pain is reproduced on active motion but not during rest. He pointed out pain by placing his hand over the left lumbar spine but could not pinpoint the exact area of pain. He said he had the same symptoms approximately 1 year ago. What is the best initial case management?
a. refer for a bone scan
b. treat for muscle dysfunction
c. treat for joint dysfunction
d. refer for orthopedist
*****B*****
672. A person presents with headaches, conjunctivitis, a dilated pupil and a cloudy, steamy cornea. What would be indicated in their case?
a. immediate referral
b. benign and self limiting but should be monitored
*****A*****
673. A middle-aged obese female presents with a history of fatigue, intermittent headaches and tachycardia. What question would be most relevant in the diagnosis of her case?
a. Do you have an exercise regimen?
b. Are you on a diet or weight loss program?
c. Does she have a family history of thyroid problems?
*****B*****
674. A girl with Down's syndrome is brought in for a physical exam for the Special Olympics. The most important thing to evaluate to assess her risk of injury?
a. heart rate and blood pressure
b. extension/flexion films of the cervical spine
*****B*****
675. A 6 year old boy presents with fever, neck pain and stiffness. Family members have had similar symptoms recently. What is recommended?
a. refer to an MD
b. refer to a hospital
c. bed rest
d. do an ortho-neuro exam
*****B*****

676. A patient is found to have an aplastic odontoid and agenesis of the posterior arch of atlas. Your initial management should be?
 a. refer for corrective surgery
 b. flexion extension films of the cervical spine
 c. adjust
 B

678. What exercise would be recommended for a 45 year old executive under stress presenting with fatigue?
 a. William's
 b. Jacobson's
 c. Frenkel's
 d. Bobath's
 B

679. What is the most common position for short wave diathermy on a patient with chondromalacia patella?
 a. standing
 b. sitting
 c. side lying
 d. prone
 B

680. What condition would whirlpool baths be most indicated?
 a. hyperthyroidism
 b. renal failure
 c. recently healed fracture
 d. acute dermatitis
 C

681. A 21 year old male has a history of migraine headaches and light sensitivity. Which modality would be indicated?
 a. cold packs
 b. SW diathermy
 c. intermittent cervical traction
 d. ultrasound
 e. vibratory
 A

682b. A 46 year old left handed female office worker presents with shoulder, arm and hand pain of gradual onset. In the previous 48 hours, the patient has had trouble sleeping and there is pain limiting shoulder flexion and abduction. There is point tenderness at the anterolateral aspect of the humerus. What is the probable diagnosis?
 a. hyperabduction syndrome
 b. adhesive capsulitis
 c. rotator cuff tear
 d. subacromial bursitis
 A

683b. Which is contraindicated in the treatment of the above diagnosis?
 a. pendulum exercises
 b. rigid immobilization
 c. broom handle exercises
 d. ice
 B

684c. A 12 year old girl presents in your office with an S-shaped scoliosis, 14° primary thoracic curve and there was no rotation noted. What is the appropriate initial treatment?
 a. refer to an orthopedist for bracing
 b. chiropractic treatment
 c. refer to a neurologist
 d. TENS
 B

685c. What type of supportive brace do you use with this condition?
 a. Milwaukee
 b. Minerva
 c. Philadelphia
 d. Thomas
 A

686c. Which of the following exercises will be recommended?
 a. Jacobson's
 b. Codman's
 c. Buerger-Allen
 d. Blount's
 e. William's
 D

687. Which of the following modalities would be used in a patient with Bells palsy?
 a. pulsed ultrasound
 b. sine wave-surge
 c. high volt galvanic
 d. micro-current stimulation
 D

688. Which of the following produces heat by infra-red?
 a. tanning lamps
 b. microwave ovens
 c. hot packs
 d. ultrasound
 C

689. An 11 year old male presents with pain at the anterior aspect of the leg distal to the knee. It is worse when running, jumping, kneeling and riding a bicycle. He also has a palpable swelling at the tibial tuberosity. Which of the following is recommended on this patient?
 a. spray and stretch technique
 b. limitation of activity
 c. hot packs and massage
 d. isotonic exercises
 B

690. An increase in the segmented neutrophils and the bands would be most suggestive of;
 a. viral infection
 b. bacterial infection
 c. allergies
 d. fungal infections
 B

691. What is initially done in the diagnosis of tuberculosis?
 a. sputum culture
 b. CBC
 c. chest x-ray
 d. acid fast stain
 A

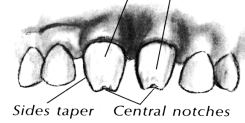
692. Intake of what substance may give a false positive Guaiac test;
 a. iron
 b. vitamin C
 c. red meat
 d. aspirin
 C

693. Lab results on a 65 year old reveals; WBC-80,000, PMNs-18%, 5% pro-lymphocytes, RBCs-1 million, MCV-101, MCH 30. Which of the following is this most suggestive?
 a. acute lymphocytic leukemia
 b. pernicious anemia
 c. polycythemia
 A

694. What predisposes to heart attacks?
 a. high cholesterol
 b. high triglycerides
 A

695. Which of the following is most easily absorbed by the stomach?
 a. salt
 b. water
 c. alcohol
 d. dilute acid
 C

696. Identify the finding in the diagram below;
Smaller teeth, more widely spaced



Sides taper Central notches
 a. Turner's sign
 b. Moon's sign
 c. Horner's sign
 d. Hutchinson's teeth
 D

697. Identify the finding in the diagram below;



a. cataract
 b. pinguecula
 c. glaucoma
 d. retinal detachment
 A

698. Identify the finding in the diagram below;



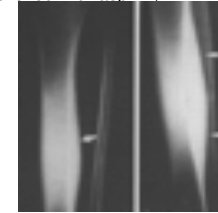
a. Sprengel's deformity
 b. swan neck deformity
 c. boutonniere
 d. mallet finger
 B

699. An 11 year old female presents with left hip and knee pain. She has a slight limp and decreased range of motion of the coxa-femoral joint:



a. aseptic arthritis
 b. slipped femoral epiphysis
 c. Legg-Calve-Perthes
 d. osteoid osteoma
 C

700. An 8 year old female with leg pain which is relieved with aspirin:



a. osteoblastoma
 b. osteoid osteoma
 c. osteoma
 d. non-ossifying fibroma
 B

701. Identify the finding in the radiographs;



a. posterior arch agenesis
 b. posterior arch fracture
 c. hypoplastic dens
 d. facet dislocation
 C

702. A 30 year old male presents with back pain after a fall. He has had bone pain for 10 years. Most likely diagnosis?

a. Paget's
 b. fibrous dysplasia
 c. multiple exostosis
 d. enchondromatosis
 B

703. What is the abnormality in the EKG?



a. paroxysmal tachycardia

704. What is the abnormality in the EKG?



a. atrial fibrillation
 b. ventricular fibrillation
 c. premature ventricular contraction
 d. arrhythmia
 A

1. When a doctor asks a patient, "Who do you live with?" They are looking for:

A. chief complaint
 B. family history
 C. past medical history
 D. psycho-social history
 ...D...

2. A 56 year old female presents with localized low back pain, muscle spasm and high fever. Motion is restricted due to pain. The pain occurred 2 days ago without provocation. A bone scan displays "hot spots" in the lumbar spine. Which of the following obtained in patient history is NOT a factor to her condition?
 A. spinal osteoarthritis
 B. diabetes mellitus
 C. steroid therapy
 D. recent surgery
 ...A...
3. A 67 year old woman presents with sharp, piercing pain the area of the trigeminal innervation. What would be the best question to find cause of problem?
 A. Have you been drinking excess milk and dairy?
 B. Do you have flu vaccination every year?
 C. Have you been doing excess exercise recently?
 D. Do you have cold sores or skin sores?
 ...D...
4. Which of the following fractures is the most unstable:
 A. tip of odontoid fracture
 B. spinous process avulsion
 C. base of odontoid fracture
 D. posterior arch of C1 fracture
 ...C...
5. On a lateral cervical radiograph, stress lines are drawn from the posterior body at C7 and what other structure?
 A. posterior arch of C1
 B. middle of the odontoid of C2
 C. posterior aspect of C2
 D. spino-laminar line of T1
 ...C...
6. Which dermatitis would most likely be associated with inflammation of the upper cervical spinal ligaments?
 A. eczema
 B. tinea capitis/corporis
 C. vitiligo
 D. psoriasis
 ...D...
7. A young Caucasian male with hilar adenopathy and calcified nodules on x-ray will most likely be diagnosed with?
 A. sarcoidosis
 B. lymphoma
 C. anemia
 D. bronchial carcinoma
 ...A...
8. A female smoker presents with pain and paresthesia in the arm and hand. X-rays show a calcific density in apex of lung, and exam reveals a positive Eden's and a C6 subluxation. What would you do next?
 A. adjust C-spine
 B. test for thoracic outlet syndrome
 C. refer for further evaluation
 ...C...
9. Which one of the following would NOT be a differential diagnosis for a single ivory vertebra?
 A. osteoblastic metastasis
 B. hyperparathyroidism
 C. Hodgkin's
 D. Paget's
 ...B...
10. In a child that you suspect has rickets, what would be diagnostic?
 B. radiographic changes at ends of long bones
 C. radiographic changes at epiphysis of long bones
 D. increased serum Ca⁺⁺ and alkaline phosphatase
 ...B...
11. A patient was in head on collision in car while wearing a lap belt. Which of the following anatomical structures would likely be damaged?
 A. spinous fracture
 B. anterior longitudinal ligament rupture
 C. lateral facet recess stenosis
 D. compression of the facets
 ...A...
12. Non-traumatic DJD include all of the following joints except which joint?
 A. C5-C6 motion unit
 B. glenohumeral joint
 C. hip joint
 D. distal interphalangeal joint
 ...B...
13. What is the most commonly seen finding with Downs?
 A. C1/C2 dislocation
 B. spina bifida
 C. basilar invagination
 ...A...
14. Spina bifida is most commonly seen at which segment?
 A. S1
 B. L5
 C. T1
 D. T12
 ...A...
15. A patient's x-rays reveal a radiolucent appearance of the lungs, a lowered position of the diaphragm and a narrowed heart shadow suggests;
 A. pneumothorax
 B. emphysema
 C. consolidation
 D. atelectasis
 ...B...
16. Little leaguer's elbow shows a fracture of
 A. medial epicondyle
 B. lateral epicondyle
 C. radial head
 D. olecranon
 ...A...
17. A 47 year old male presents to your office with mid back pain of 8 hours duration. He states that 12 hours previous he had flu-like symptoms. On visual inspection you notice vesicular eruptions arranged horizontally from the spine around anteriorly along the T6 dermatome. What is your diagnosis?
 B. polymyositis
 C. polyarthritis nodosum
 D. herpes zoster
 ...D...
18. A patient presents with cold hands and feet. What would be the best question to ask to confirm a diagnosis of Raynaud's?
 A. Do your hands change colors in the cold?
 B. Have you always had cold hands and feet?
 C. Do your parents have history of cold hands and feet?
 D. Do your hands feel better in a warm climate?
 ...A...
19. A female patient presents with right lower quadrant and back pain for a few days. She missed the last menstrual period (she is one month late) and has spotting. Her blood pressure is decreased on standing and she has been fainting. What is your diagnosis?
 A. appendicitis
 B. tubal pregnancy
 C. tumor
 D. torsion of right ovary/ uterus?
 ...B...
20. Which of the following variations of the normal skin tone is consistent for a Caucasian patient with hemochromatosis;
 A. blue
 B. bronze
 C. reddish blue
 D. yellow
 ...B...
21. A 13 year old boy presents with a painful swollen red area inferior to the tibial tuberosity of 2 days duration. History reveals that 2 weeks prior, he had a contusion to the left knee that resulted in a laceration. There was no pain at the time. What is your initial impression?
 A. osteochondritis desiccans
 B. osteomyelitis
 C. Osgood-Schlatter's
 D. ankylosing spondylitis
 ...B...
22. What would be your next step to confirm your initial diagnosis?
 A. gait
 B. posture
 C. vital signs
 D. vision/x-ray
 ...C...
23. What would confirm your diagnosis?
 A. urinalysis
 B. CBC and culture
 C. refer for MRI
 D. x-ray
 ...B...
24. A 20 year old male presents with history of substantial vomiting with loss of gastric fluids in the past two days. What is the most likely lab finding?
 A. acidosis
 B. glycosuria
 C. cholesterolemia
 D. hypokalemia
 ...D...
25. A 32 year old male presents with low back pain and spinal stiffness. All x-ray, physical, and laboratory findings point to ankylosing spondylitis. What other systems do you need to look at?
 A. respiratory and integumentary
 B. respiratory and genito-urinary
 C. integumentary and genito-urinary
 D. vascular and genito-urinary
 ...D (best), or B...
26. Essential (1°) hypertension is seen in which age group?
 A. less than 25
 B. 25-35
 C. 35-55
 D. greater than 55
 ...B...
27. What is the most common cause of cause of 2° hypertension?
 A. pheochromocytoma
 B. 1° hyperaldosteronism
 C. renal failure
 ...C...
28. Which group is most predisposed to atherosclerosis?
 A. black females
 B. white females
 C. black males
 D. white males
 ...C...
29. Stabbing, knife-like fleeting pain in a patient may suggest;
 A. angina
 B. aortic dissection
 C. neuralgia
 ...C...
30. A patient with clubbing of nails, cyanosis of the lips and oral mucosa with edema, blue tongue, hypertrophic SCM is suggestive of?
 A. respiratory
 B. vascular/ cardiac
 C. neurogenic
 D. endocrine
 ...A...
31. A 50 year old male has a dark lesion with edematous changes on the medial malleoli of the left leg. There are varicose veins, and palpable moistness and heat. What is your diagnosis?
 a. contact dermatitis
 b. stasis dermatitis
 c. atopic dermatitis
 ...B...
32. A 26 year old female has dyspnea. 24 hours previously she had an appendectomy. This may be due to?
 A. functional dyspnea
 B. aspiration pneumonia
 C. anaphylaxis
 D. pulmonary embolism
 ...D...
33. Painful, rounded, small hard beads or nodules found at the head of the first through fourth metatarsals with inflammation indicate which condition?
 A. sesamoiditis
 B. Morton's neuroma
 C. claw toes
 D. heel spurs
 ...A...
34. Physical examination of a patient reveals both eyes are swollen with iritis and decreased reflexes. There is a circumferential zone around the cornea with a pink colored hyperemia. This best describes which condition?
 A. anisocoria
 B. retinitis
 C. iritis
 D. conjunctivitis
 ...C...
35. Which of the following will give you a positive Rinne's?
 A. bone is heard louder than air
 B. sound lateralizes to one side
 C. air is heard twice as long as bone
 ...C...

36. Which of the following is indicative of a lung pathology with a most likely underlying cause of chronic sinusitis.
A. facial tenderness
B. foul smelling breath
C. fever
D. anemia
...B...
37. Total blockage of external auditory meatus on the right may give which result?
A. Weber lateralizes to the right
B. Weber lateralizes to the left
C. air conduction is longer than bone conduction
D. No lateralization
...A...
38. A 20 year old presents with acute stabbing chest pain after mild exercise. What is the likely cause?
A. rib fracture
B. pneumothorax
C. pleurisy
D. asthma
...B...
39. What skin lesion starts as purple or blue then turns green, then yellow, and then brown?
A. bulla
B. wheal
C. venous star
D. ecchymosis
...D...
40. The earliest pulmonary sign of cardiac insufficiency.
A. pulmonary effusion
B. orthopnea
C. bronchospasm
D. Cheyne-Stokes
...B...
41. The best way to differentiate between an acute and chronic condition would be:
A. radiological study
B. physical examination
C. orthopedic exam
D. blood studies
...A...
42. A 26 year old presents with headache, cervicalgia, anosmia and headaches after automobile accident was treated for broken nose.
A. incontinence
B. peritonitis
C. meningitis
D. blindness, tinnitus
...C...
43. Retinal examination of a patient with essential hypertension is likely to reveal:
A. optic neuritis
B. flame shaped hemorrhages
C. macular microaneurysms
D. macular degeneration
...B...
44. A loud brassy cough may be indicative of:
A. long standing bronchitis
B. consolidation of lung parenchyma
C. left sided heart failure
D. tracheal or large airway obstruction
...D...
45. What is the first sign of mitral stenosis?
a. dyspnea
b. edema
c. cough
d. chest pain
...A...
46. Which period of life would you first experience the symptoms of rheumatic fever?
a. infancy
b. pre-adolescence
c. adolescence
d. middle age
...B...
47. An aortic aneurysm that bulges into the trachea will result in?
a. hemoptysis
b. dry cough
c. bronchiectasis
d. lower extremity edema
...B...
48. A patient complains of light-headedness for a week which occurs without activity or when they lift their head.
a. cerebrovascular
b. vestibular
c. cerebellar
...B...
49. A patient is supine. Palpation reveals a mass at Hesselbach's triangle but none at the inguinal region or in the scrotum;
a. indirect
b. femoral
c. direct
d. umbilical
...C...
50. A young male presents with epigastric pain. He drank the night before, had vomiting in the morning and now has flank pain (some labs were given);
a. pancreatitis
c. cirrhosis
...A...
51. A patient presents with a history of vertigo every 6 months. What is most likely;
a. benign positional vertigo
b. brain tumor
c. labyrinthitis
...C...
52. A patient presents with heart palpitations, a decreased hematocrit would most indicate;
a. myocardial infarct
b. congestive heart failure
c. anemia
d. hypoglycemia
...C...
53. Uvular deviation from the midline to the right with some sore throat and dysphagia suggests;
A. peritonsillar abscess
B. retropharyngitis
C. retroepiglottitis
D. retrolaryngitis
...A...
54. A male patient presents with cherry red cheeks, lips and tongue and mouth would be most typical of;
a. iron deficiency
b. lupus erythematosus
c. CO poisoning
d. pulmonary edema
...C...
55. Diseased organ which refers pain to the mid epigastric region would most likely be innervated by
A. T6-8
B. T9-10
C. T11-T12
D. L1-L2
...A...
56. The dermatome which most closely corresponds to the deltoid region;
A. C2
B. C3
C. C4
D. C5
...C...
57. Proprioception is associated with which area of the nerve system?
A. posterior columns
B. cerebellum
C. extra pyramidal
D. lateral columns
...A...
58. A 17 year old girl has alternating hyposmia and parosmia. What would you use to test cranial nerve function?
A. pinwheel, cotton swabs
B. sweet, salty
C. tuning fork, bell
D. coffee, peppermint
...D...
59. A L5 transitional segment would most affect which disc level?
A. L5-S1
B. L4-L5
C. L3-L4
D. L2-L3
...B...
60. What is your suggested treatment for a patient with myositis ossificans?
A. heat
B. massage
C. ultrasound
...C...
61. Which of these conditions precludes the use of therapeutic ultrasound?
A. calcific bursitis
B. adhesions
D. vascular insufficiency
...D...
62. Medium frequency stimulation uses a current designed to maximize;
A. depth of penetration
B. polar effects
C. duration of time
D. accommodation of electrical current
...A...
63. Therapeutic ultrasound is most effective at the;
a. fat muscle interface
b. muscle belly
c. tendon periosteal interface
d. muscle with tendon
...C...
64. What modality would you use in a patient with intertrochanteric bursitis?
a. negative galvanism
b. deep massage
c. traction
d. ice
...D...
65. What is associated with isokinetic movement?
a. torque limiting device
b. against gravity
c. constant velocity
d. self limiting device
...C...
66. After gardening, a patient presents with low back and right leg pain to the top of the foot, shooting pain into 2nd, 3rd and 4th toes. There is decreased sensation on lateral aspect of leg and top of foot. Exam reveals a (+) Valsalva, (+) SLR at 30°, (-) WLR, (+) Kemp's and Bechterew's on the right. Achilles and patellar reflexes +2 bilaterally. Pain is decreased when leaning to left. The patient has had this before but not as bad. What muscles are likely to be weak?
A. plantar flexors
B. dorsiflexors
C. toe extensors
D. knee extensors
...C...
67. What disc is probably involved?
A. L3-4
B. L4-5
C. L5-S1
D. S1-2
...B...
68. What type of disc protrusion is suggested?
A. posterior medial
B. posterior lateral
C. sub-rhizal
D. central
...B...
69. A 19 year old college baseball player presents with right shoulder pain. Pain occurred after two long overhand pitches from shortstop to first base. Pain increased with all motion, especially on abduction and external rotation. Which is the likely diagnosis?
A. bicipital tendinitis
B. subacromial bursitis
C. rotation cuff tear
D. A/C joint separation
...C...
70. A 14 year old boy presents with history of lower extremity pain and weakness of hip abductors. What gait would be exhibited?
A. waddling
B. steppage
C. ataxic
D. spastic
...A...
71. Which of the following is associated with foot drop?
a. waddling gait
b. steppage gait
c. ataxic gait
d. spastic
...B...
72. Muscle spasm in an acute ankle injury may keep you from initially diagnosing;
A. ligamentous tear
B. hematoma
C. compound fracture
...A...

73. A patient playing football was hit at the anterior tibia that was displaced from anterior to posterior to the femur while knee flexed. is likely to sustain an injury to the:
- anterior cruciate ligament
 - posterior cruciate ligament
 - lateral collateral
 - medial meniscus
- ...B...

74. A patient with presents with shoulder pain. There is no pain or decreased range of motion with movement of elbow or shoulder. Upon resisted flexion of the arm, the patient has pain in the anterior superior aspect of the humeral head. Which of the following is the likely diagnosis?
- subdeltoid bursitis
 - bicipital tendinitis
 - brachial neuralgia
 - polymyositis
- ...B...

75. An avulsion fracture at the anterior iliac superior spine may be due to the action of which muscle?
- rectus femoris
 - sartorius
 - gluteus medius
 - hamstrings
 - psaos
- ...B...

76. A patient with effacement of the longitudinal arch and lateral calcaneus will demonstrate;
- pes cavus
 - pes planus
 - talipes valgus
 - talipes varus
- ...B...

77. A 28 year old male presents with pain down the back of his right leg. Which of the following would indicate that the problem is piriformis syndrome and not a lumbar disc?
- sudden onset
 - antalgic posture
 - lack of true neurological dysfunction
 - pain upon palpation of sciatic nerve
- ...B...

78. In a patient with hyperabduction syndrome what muscle should you not strengthen;
- rhomboids
 - pectoralis minor
 - biceps
 - trapezius
- ...B...

79. The most common anatomical location to find adventitious bursa is?
- between cervical transverse processes
 - between lumbar spinous processes
 - posterior to the nuchal ligament
 - beneath the galae aponeurotica
- ...D...

80. Which of the following landmarks is used as the point for measuring jugular venous pressure?
- acromioclavicular joint
 - sternoclavicular joint
 - cricothyroid cartilage
 - sternal angle
- ...D...

81. What is the muscle is responsible for opening the mouth?
- lateral pterygoid
 - medial pterygoid
 - masseter
 - platysma
- ...A...

82. Which muscle closes the jaw?
- buccinator
 - internal pterygoid
 - external pterygoid
 - masseter
- ...D...

83. The xiphoid will be found at what level?
- T4
 - T6
 - T8
 - T10
- ...C...

84. Which of the following motions will tear the quadriceps?
- forced flexion/extension
 - forced abduction
 - internal and external rotation
 - forced adduction
- ...A...

85. What is the most motion that occurs at C0-C1?
- flexion
 - extension
 - rotation
 - lateral flexion
- ...A (best) or B...

86. What would you suspect in a case of ascites with increased levels of serum amylase and lipase.
- polymyositis
 - obstructive bowel
 - pancreatitis
 - peritonitis
- ...C...

87. Which would show urinalysis with increased protein?
- nephrotic syndrome
- ...B...

88. Beta carotene is a precursor to what vitamin?
- A
 - K
 - D
 - E
- ...A...

89. Where is Vitamin C most seen
- seeds, nuts and legumes
 - milk
 - tomatoes, green pepper and cabbage
- ...C...

90. Vitamin E is found in:
- yellow vegetables
 - fish oils and liver
 - wheat germ and legumes
- ...C...

91. A deficiency of what microelement lead to tetany?
- CA⁺⁺
 - sodium
 - potassium
 - magnesium
- ...A...

92. Which of the following will burn lipids the best
- strength
 - endurance
- ...B...

93. A 15 year old female is brought into your office with an asymptomatic 15° scoliosis and there is no aberrant motion. What would be your recommended course of care?
- do nothing and re-evaluate in six months
 - tell patient that it is normal
 - adjust to increase mobility
- ...C...

94. An older male is adjusted and has moderate bladder incontinence and they wet themselves
- adjust opposite direction
 - refer out
- ...B...

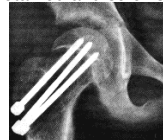
95. A 30 year old male jogger with bilateral leg numbness, bowel dysfunction and bladder incontinence History reveals that he fell 2 days ago while coming home. Based on the available information, what would you do next?
- refer to hospital
 - adjust
 - EMG
 - Do orthopedic and neurological exam and re-schedule a consultation
- ...A...

96. A 16 year old female presents with numbness, tingling and decreased strength in arms when held over her head. Case management would be:
- x-ray
 - refer to neurologist
 - passive monitor
 - MRI
- ...A?...

97. What is your management for an 8 year old male with Osgood-Schlatter's?
- limit activity
- ...A...

98. Moderate neck pain headache s and mid thoracic pain in a middle aged male Uncle had AS grand father died of CVA, mother and grandmother had RA. BP is 136/88 and he is slightly obese. What would you NOT do next?
- complete musculo-skeletal workup
 - adjust with clinical chiropractic trial
 - do chiropractic x-rays and analysis
 - refer to a rheumatologist for serological
 - refer to a cardiologist
- ...C...

99. A 10 year old boy is patient. had a fracture femoral neck 2 weeks ago There is a diagram of his leg with metal rod and screws.



- osteosarcoma
 - slipped cap epiphysis
 - Legg-Calve-Perthe's disease
 - fracture of metal rod
- ...B...

100. 30 year old female with low back pain. Upon x-ray saw incidental but significant changes in sacrum, pelvis and proximal femur



- osteocystroma
 - fibrous dysplasia
 - Paget's
 - HME
- ...B...

101. What is the most likely diagnosis?



- DJD
 - RA
 - tabes dorsalis
 - gouty arthritis
- ...A...

102. Three x-rays APOM, APLC, lateral extension view.



- dens fracture with displacement of C1
 - rheumatoid arthritis of cervical spine
 - agenesis of odontoid
 - Os odontoidium
- ...A...

103. 60 year old male presents with knee pain.



- healed infarct
 - avascular necrosis
 - osteosarcoma
 - enchondroma
- ...A...

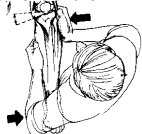
104. X-ray of hand



- A. RA
- B. OA
- C. gout

...A...

105. The pictured orthopedic test is checking for involvement of the:



- A. anterior cruciate ligament
- B. posterior cruciate ligament
- C. medial collateral ligament
- D. medial meniscus

...C...

107. When a doctor asks a patient, "Who do you live with?", they are looking for:

- A. chief complaint
- B. family history
- C. past medical history
- D. psycho-social history

...D...

108. A 16 year old female breaks out with total body hives. Which question is clinically significant?

- A. Do you have blackout spells
- B. Are you sexually active
- C. Is there a family history
- D. Are you taking any prescription drugs?

...D...

109. The part of the database that initiates patient evaluation:

- A. history
- B. physical exam
- C. lab tests
- D. scanning procedures

...D...

110. A 19 year old female had a car accident 3 days ago. She has headaches and dizziness. What is the most important factor?

- A. no back head rest
- B. car's equal size
- C. looking forward when hit
- D. she was aware it was going to happen

...A...

111. A 46 year old male presents with barrel chest and dyspnea. He says leaning on desk helps him breath. Which is the appropriate question to ask?

- A. exposure to dust or particulate matter

112. A 28 year old woman has hyperlordosis and several degenerative discs. What other information would be relevant?

- A. previous systemic illness
- B. recent trauma
- C. family history of arthritis
- D. dietary habits

...C...

113. A man says he has arthritis. What other information do you need in order to diagnose Reiter's syndrome?

- A. other associated complaints
- B. has he had it before

...A...

114. A positive Gaenslen's test indicates;

- A. sacroiliac joint lesion
- B. sciatica
- C. disc herniation
- D. tensor fascia lata contracture

...A...

115. Which of the following would be done with a patient with anterior pelvic tilt and hyperlordosis?

- A. maintain abdominal tone
- B. strengthen erector spinae
- C. strengthen psoas and hamstrings
- D. strengthen quadriceps

...A...

116. Which of the following tests determine the patency of the radial and ulnar arteries?

- A. Bunnel-Littler retinacular test
- B. Adson's
- C. Allen's
- D. Eden's

...C...

117. Which of the following exercises are contraindicated in an athletic male with central spinal canal stenosis?

- A. flexion exercises
- B. lumbar extension exercises
- C. abdominal strengthening
- D. hamstring strengthening

...B...

118. Which of the following does not produce a thoracic kyphosis?

- A. scoliosis
- B. long thoracic nerve paralysis
- C. Pott's disease
- D. Scheuermann's

...B...

119. A 15 year old athletically active male presents with anterior leg pain that occurs after 10 minutes of exercise and reoccurs after rest. Which of the following would be most beneficial?

- A. running on a grassy surface
- B. running up hills
- C. vertical jumping for 10 minutes
- D. running 100 yard wind sprints for warm up

...A...

120. When a person is in the standing upright position, flexion and extension occur in the ____ plane of motion, and ____ axis.

- A. sagittal, horizontal
- B. sagittal, vertical
- C. horizontal, horizontal
- D. sagittal, vertical

...A...

121. Which test best demonstrates nerve root compression?

- A. SLR
- B. well-leg raiser
- C. Bowstring
- D. Lindner's

...D...

122. Which of the following pair of tests best differentiates muscle strain and ligament sprain in the cervical area.

- A. Jackson's compression and cervical foraminal compression
- B. maximal cervical compression and George's test
- C. shoulder depressor and Soto Hall
- D. resisted ROM and passive ROM

...D...

123. A young boy presents with open growth plates. You would not use a heel lift because the increased axial compression will cause:

- A. femoral anteversion
- B. tibial deformity
- C. femoral torsion
- D. anatomical (true) short leg

...D...

124. What is the correct sequence for a post traumatic soft tissue injury?

- A. inflammation - regeneration - remission
- B. inflammation - remodeling - remission
- C. reaction - regeneration - remission
- D. reaction - regeneration - remission

...B...

125. A 26 year old female presents with right knee pain and decreased range of motion in right knee. Her leg has been in a cast for the last 6 weeks. There is quadriceps atrophy and signs of fibrosis. Patella tendon raised with the foot in cephalad position. What is best management to increased range of motion in knee?

- A. quadriceps strengthening
- B. tibial manipulation
- C. hamstring strengthening
- D. femoral manipulation

...A...

126. The posterior drawer tests what ligament?

- A. anterior cruciate
- B. medial meniscus
- C. posterior cruciate
- D. medial collateral

...C...

127. A 65 year old female has right anterior thigh pain. It has been getting increasingly worse in the last 2-3 years. Upon examination a limp was noted and a right leg 1 inch shorter than left. Orthopedic tests are positive on right. X-rays will most likely reveal:

- A. congenital hip dislocation
- B. fracture of femur due to cancer
- C. sacroiliac arthritis
- D. degenerative hip disease

...A...

128. A patient presents with the forearm flexed and supinated. Where is the problem?

- A. biceps tendonitis
- B. rotator cuff
- C. subacromial bursitis
- D. subdeltoid bursitis

...A...

129. A 14 year old presents with pain on flexion and a stiff neck. Foraminal compression, shoulder depressor and Kernig's were positive:

- A. nerve root compression
- B. meningitis
- C. muscle strain
- D. disc

...B...

130. Beevor's sign is indicative of?

- A. cervico-cranial canal stenosis
- B. sciatica
- C. T7-T10 nerve involvement
- D. low pain threshold

...C...

131. A (+) Bechterew's test is accompanied by:

- A. protrusion of intervertebral disc

132. Which of the following orthopedic tests is used to differentiate a medial collateral ligament tear versus a medial meniscus tear?

- A. Screw home
- B. Drawer
- C. Apley's

...C...

133. The patient is supine and lifts one leg while the other heel is supported in the hand of the doctor. The doctor feels pressure in the other leg. What orthopedic test is described?

- A. Bechterew's
- B. Gaenslen's
- C. Burn's bench
- D. Hoover's

...D...

134. A 56 year old female presents with localized low back pain, muscle spasm and high fever. Motion is restricted due to pain. The pain occurred 2 days ago without provocation. A bone scan displays "hot spots" in the lumbar spine. Which of the following obtained in patient history is NOT a factor to her condition?

- A. spinal osteoarthritis
- B. diabetes mellitus
- C. steroid therapy
- D. recent surgery

...A...

135. A 1 month old baby presents with forceful, projectile vomiting, malabsorption and dehydration. Examination reveals peristaltic waves from left to right and muscle knots in the epigastric region.

- A. pyloric stenosis
- B. Hirschsprung's
- C. hiatal hernia
- D. esophageal atresia

...A...

136. A patient with tremors, exophthalmos and tachycardia probably has:

- A. hyperthyroidism
- B. hypoglycemia
- C. diabetes
- D. Cushing's

...A...

137. Which of the following is consistent in a patient with tympanites, bowel sounds, abdominal ascites and puffiness of the face?

- A. hepatitis/hepatomegaly
- B. nephrotic syndrome
- C. paralytic ileum/early intestinal obstruction
- D. cholecystitis

...B...

138. What clinical factor is involved with a patient with gout and pain in his foot?
 A. steroid injection
 B. dietary extravagance
 C. antibiotic injection
 D. allergy season
 ...B...
139. What diseased organ refers pain to the periumbilical area?
 A. liver
 B. pancreas
 C. small intestine
 D. bladder
 ...C...
140. A 67 year old man with dyspnea and productive chronic cough presents to your office. What other symptom would require a second opinion?
 A. expiratory wheezing
 B. hemoptysis
 C. spinal joint pain
 D. expectoration
 ...B...
141. Which of the following is a slowly progressive metabolic disease characterized by an initial phase of excessive bone resorption and a reactive phase of excessive bone formation?
 A. Pagets
 B. multiple myeloma
 C. osteolytic metastatic carcinoma
 D. hyperparathyroidism
 ...A...
142. A pregnant woman with untreated diabetes mellitus will result with:
 A. myxedema/ moniliiasis
 B. pubis p_____ (?)/condyloma acuminatum
 C. hyperthyroid
 D. trichomonas
 ...? Moniliiasis?...
143. Which is not a cause of coronary heart disease?
 A. smoking
 B. obesity
 C. chronic bronchitis
 D. hyper cholesterolemia
 ...C...
144. Most common cause of hypertension of the general population?
 A. renal
 B. essential
 C. endocrine
 D. neurological
 ...B...
145. Which of the following diseases is endemic to people from the Mediterranean?
 A. hepatitis
 B. yellow fever
 C. thalassemia anemia
 D. Vitamin B12 deficiency
 ...C...
146. Which of the following disease is endemic to the Southwestern United States?
 A. histoplasmosis
 B. coccidioidomycosis
 C. thalassemia anemia
 D. fish tapeworm
 ...B...
147. A 60 year old presents with recurrent upper back pain and neck pain. He is a smoker and heavy drinker. He has an enlarged liver, periumbilical pain and fixations at C5-6 and T2-3;
 A. Hashimoto's
 B. Crohn's disease
 C. abdominal aortic aneurysm
 D. esophageal varices
 ...D...
148. What test do you use to diagnose Crohn's disease and ulcerative colitis?
 A. stool ova study
 B. sigmoidoscopy
 ...B...
149. During auscultation what sounds are heard in the periphery?
 A. bronchial
 B. vesicular
 C. bronchovesicular
 ...B...
150. Which part of the physical may reveal the cause of chronic hypertension in a distal extremity?
 A. palpate abdomen
 B. bilateral blood pressure
 C. percuss thorax
 D. fundoscopic
 ...B...
151. A patient presents with an expectorant producing cough for more than 2 years. What is most likely diagnosis?
 A. viral tracheobronchitis
 B. bacterial bronchopneumonia
 C. aspiration pneumonia
 D. chronic bronchitis
 ...C...
152. Papilledema is most commonly caused by:
 A. increased intraocular pressure
 B. increased intracranial pressure
 C. decreased intraocular pressure
 D. decreased intracranial pressure
 ...B...
153. People with migraine headaches should avoid:
 A. red wine
 B. vodka
 C. lemonade
 D. ice tea
 ...A...
154. A 62 year old female presents with resting tremors and bradykinesia that has progressed over the past few years. What is the likely area affected?
 A. posterior column disease
 B. cerebellum
 C. lateral spino-thalamic
 D. extrapyramidal
 ...D...
155. Which of the following is the most likely to cause bradycardia?
 A. hyperthyroidism
 B. acute fever
 C. increased intracranial pressure
 D. diabetes mellitus
 ...C...
156. What condition may have a persistent severe pain?
 A. hiatal hernia
 B. gall bladder obstruction
 C. pancreatitis
 ...C...
157. A patient presents with palpable mass around the umbilical area and acute pain at the midline of the abdomen. He also has hepatomegaly.
 A. hepatitis
 B. dissecting aortic aneurysm
 C. hematoma
 ...B...
158. A patient has edema of the posterior calf down to the foot with a localized red, warm and tender area. This most likely indicates;
 A. myxedema
 B. nephrotic syndrome
 C. congestive heart failure
 D. deep vein thrombosis
 ...D...
159. An obese 22 year old male presents with acute dyspnea of one hour duration with left-sided chest pain. He has a recent history of an emotionally stressful event. Exam reveals a high blood pressure, left lower chest pain, decreased excursion on the left and no breath sounds in the lower left field. This is most suggestive of;
 A. spontaneous pneumothorax
 B. asthma
 C. viral pneumonia
 d. acute bronchitis
 ...A...
160. Which of the following would predispose a patient to pneumothorax?
 A. hypertension
 B. thrombophlebitis
 C. chronic bronchitis
 D. obesity
 E. bronchiectasis
 ...C...
161. A 50 year old male presents with neck and back pain that began after playing golf yesterday. During exam the pupils dilate and constrict in response to accommodation but they do not respond to direct or indirect light reflex. Based on this information, what would your suspicion be?
 A. diagnosis of diabetes mellitus
 B. recent cholecystectomy
 C. current influenza
 D. exposure to sunlight and failure to wear sunglasses
 ...A...
162. Which of the following defects is characterized by a sternum which protrudes from a narrow thorax like a keel of a ship, with an increased anterior to posterior diameter;
 A. barrel chest
 B. pectus carinatum
 C. dowanger hump
 D. pectus excavatum
 ...B...
163. A recently married 19 year old female is experiencing early morning nausea. She never had this before. What is the cause?
 A. peritonitis
 B. pregnancy
 C. liver disease
 D. thoracic subluxation
 ...B...
164. A 69 year old male with prolonged expiration, hyperresonance in the lung fields, mild wheezing, scattered rhonchi suggests possible;
 A. upper lung carcinoma
 B. congestive heart failure
 C. COPD
 D. pneumonia
 ...C...
165. A 63 year old male patient complains of thoracic pain that feels like weight on chest. He has a history of chronic sinusitis/bronchitis. There is no fever, productive cough and hemoptysis;
 A. ulcer
 B. musculoskeletal pain
 C. pneumothorax
 D. bronchiectasis
 E. carcinoma
 ...C...
166. Which of the following would least likely be seen upon visual inspection?
 A. myxedema
 B. acromegaly
 C. pheochromocytoma
 D. Parkinson's
 ...C...
167. A patient was able to pinpoint the area of pain.
 A. acute hepatitis
 B. peptic ulcer
 C. diverticulitis
 D. intestinal obstruction
 E. peritonitis
 ...C...
168. A 40 year old male patient who drinks and smokes presents with masculine facies most likely indicates;
 A. migraine
 B. tension
 C. hypoglycemia
 D. cluster
 ...D...
169. A 38 year old male presents with low back pain for the third time in two years. He also has recurrent headaches, blurred vision and extreme lateral deviation of the eye, and he gets myopia;
 A. MS
 B. myasthenia gravis
 C.
 D. ALS
 ...A...
170. If the external jugular vein is distended in the supine position, what position could you diagnose the cause?
 A. sitting up
 B. prone
 C. on left side
 D. on right side
 ...A...
171. Which of the following may cause absent femoral and popliteal pulses?
 A. acrocyanosis
 B. atherosclerosis
 C. Leriche's syndrome
 D. embolism
 ...C...

172. Which of the following is characterized by a generalized lack of pigment in the skin, hair and eyes?
 A. vitiligo
 B. albinism
 C. tinea versicolor
 D. nephrotic syndrome
 ...B...
173. Which of the following skin pathology is bluish?
 A. cherry angioma
 B. spider angioma
 C. venous star
 D. wheal
 ...C...
174. Which of the following is characterized by painful vesicles on the lip?
 A. aphthous stomatitis
 B. herpetic labialis
 C. basal cell carcinoma
 ...B...
175. A young boy is punched in the face. The black eye is called:
 A. contusion
 B. fracture
 ...A...
176. A female presents with acute ab-dominal pain, a midline abdominal bulge and pain for the last 12 hours. She is hypotensive, has a weak rapid pulse and cool, moist skin.
 A. biliary obstruction
 B. appendicitis
 C. dissecting aneurysm
 D. hepatoma
 ...C...
177. Which of the following is a cause of iatrogenic hypertension?
 A. acute glomerulonephritis
 B. oral contraceptives
 C. coarctation of the aorta
 D. hypervitaminosis C
 ...B...
178. The signs and symptoms of vertebrovascular ischemia do not include which of the following?
 A. nausea, vertigo, vomiting
 B. difficulty walking, incoordination of extremities
 C. decreased deep tendon reflexes, muscle fasciculations
 f. visual problems, tinnitus, speech problems
 ...C...
179. A girl goes to school having skipped breakfast. At 10 AM she has a headache. This is most typical of which headache type?
 A. hypoglycemic headache
180. If you have an ectopic impulse that is not from the sino-atrial node, how will it affect the heart?
 A. arrhythmia
 B. extrasystole
 C. sinus tachycardia
 D. palpitations
 ...B...
181. A young boy says he is experiencing fluttering of his heart. What is his most likely diagnosis?
 A. atrial flutter
 B. sinus fibrillation
 C. palpitation
 D. arrhythmia
 E. vasovagal syncope
 ...C...
182. A 19 year old male presents with right knee pain for two weeks with unknown onset. His mother notices he has had a right sided limp for one month. Patrick's test increases the pain but there is no joint tenderness in the knee. What is your proper case management?
 A. x-ray both hips
 B. x-ray both knees
 C. manipulate right knee and hip
 D. right knee icing and ultrasound
 ...A...
183. What types of pain is this?
 A. somato-somatic reflex
 B. visceros-somatic reflex
 C. psychosomatic reflex
 D. somato-visceral reflex
 ...A...
184. What is most likely the cause of the pain?
 A. Osgood-Schlatter's
 B. patellar-femoral dislocation
 C. slipped femoral capital epiphysis
 D. patellar bursitis
 ...C...
185. To whom should you refer the patient?
 A. neurologist
 B. orthopedist
 C. osteopath
 D. psychologist
 ...B...
186. A 63 year old female presents with headaches and temporal pain. To whom would you refer?
 A. oncologist
 B. neurologist
 C. vascular specialist
 D. rheumatologist
 ...C...
187. A 28 year old male presents with a one year history of morning stiffness with bilateral S-I pain. He now has stooped posture, lumbar pain and limited respiratory excursion. What would the appropriate case management be:
 A. refer to a rheumatologist
 B. refer to an oncologist
 C. chiropractic care and refer to an oncologist
 D. chiropractic care and refer to a rheumatologist
 ...D...
188. What would be recommended in a male patient presenting with blurred difficult vision, severe persistent migraine headache, stiff neck with resisted cervical and head motion and photosensitivity?
 A. MRI and CT
 B. ortho exam
 C. fundusoscopic exam
 D. adjust
 ...B or C...
189. To whom would you refer a patient with chest pain that is relieved by taking antacid?
 A. gastroenterologist
 B. cardiologist
 C. psychologist
 D.
 ...A...
190. A 63 year old female presents fatigue, neck pain, chest weakness and frequent dyspnea and right upper quadrant pain. Exam reveals hepatomegaly, ankle edema, cyanosis of finger, nails and toes. What is the proper treatment and case management?
 A. refer to cardiologist immediately
 B. refer to internist for examination
 C. adjust neck and re-evaluate
 D. perform U/A and blood test
 ...B...
191. An older female presents with neck pain and spells of dizziness. She has edema in the feet, right ventricular hypertrophy and mild cyanosis in the fingers. What is recommended on the patient?
 A. refer to cardiologist
 B. refer to an internist
 C. adjust the lumbrars
 D. do more blood tests
 ...A...
192. A 28 year old woman has a headache. She has difficulty maintaining balance and experience weakness of lower limbs. Radiograph indicates no pathological findings. Treatment?
 A. physiotherapy and traction
 B. refer to neurologist
 C. adjust and give exercises
 D. refer to internist
 ...B...
193. A patient comes in after a car accident, can't move her neck and has headaches. What would your next step be?
 A. full range of motion
 B. flexion-extension cervical view
 C. non-kinetic lateral cervical
 ...C...
194. A 36 year old female presents with back pain which she states started at work (she is a secretary). The patient resisted all orthopedic testing. She was sweating profusely, very nervous and grimacing throughout the physical examination. What should be your next course of care?
 A. do neurological exam
 B. do orthopedic exam
 C. refer psychological care
 D. adjust lumbrars
 ...C...
195. An athlete presents with paresthesia, numbness, muscle weakness and decreased range of motion in cervical spine. Which of the following procedures should be performed with a diagnosis of brachial strain?
 A. specific cervical adjustments
 B. neuro exam and radiological study
 C. ice and traction cervical spine
 D. assess dietary deficiencies
 E. cervical collar
 ...B...
196. A 14 year old male is brought into your office. He is disoriented, hyperventilating, and cyanotic with contusions superficially. His mother said he was beaten up by other children.
 A. sit down and relax until patient is calm
 B. check him into the hospital (ER)
 C. x-ray
 D. refer to social services
 E. adjust mid-thoracics
 ...B...
197. When a patient has confirmed diffuse idiopathic skeletal hyperostosis (D.I.S.H.), what should they also be checked for?
 A. hypothyroidism
 B. diabetes mellitus
 C. Crohn's disease
 D. cholecystitis
 ...B...
198. Which of the following is a benign, frequently calcified lung tumor that is composed of tissue of the organ it is in and is described as a coin lesion in the lung?
 A. hamartoma
 B. hematoma
 C. teratoma
 D. parenchymal lipoma
 ...A...
199. You notice a calcified abdominal aorta on a film, its size must be at least ___ to indicate an aneurysm?
 A. 10 mm
 B. 20 mm
 C. 30 mm
 D. 40 mm
 ...D...
200. To view SI joints, what is the correct angle with a 40 inch FFD?
 A. 5° caudal
 B. 30° caudal
 C. 15° cephalad
 D. 30° cephalad
 ...C...
201. A 74 year old female presents with two week history of back pain. She also complains of fatigue and malaise. A-P, lateral lumbar and thoracic x-rays reveal compression fracture of T6 and L3 with marked generalized osteopenia. Elevated levels of which of the following indicate the poorest prognosis?
 A. serum calcium and phosphorus
 B. uric acid and calcitonin
 C. serum protein and sedimentation rate
 D. serum glucose and bilirubin
 ...C...
202. Which of the following is relieved by aspirin?
 A. osteomyelitis
 B. osteoid osteoma
 C. osteochondroma
 D. unicameral bone cyst
 ...B...
203. Lateral spinal stenosis from posterior degenerative changes, can best be evaluated on:
 A. lateral extension cervical
 B. lateral flexion cervical
 C. lateral neutral cervical
 D. cervical obliques
 ...D...
204. A 75 year old male fell on his buttocks. He had pain on trunk movement and neurological signs/tests are normal. He has a large hyperkyphosis. X-ray findings may show:
 A. ruptured disc
 B. anterior compression fracture
 C. facet imbrication
 g. muscle tear
 ...B...
205. Rib notching on the inferior border of rib;
 A. osteopenia
 B. coarctation of the aorta
 C. emphysema
 ...B...

206. A radiolucent cleft is noted and is caused by a separation of the cartilage from the anterior body. What is the best view to diagnose this?
 A. flexed lateral cervical
 B. extended lateral cervical
 C. neutral lateral cervical
 D. A-P open mouth lateral cervical
 ...B...
207. Apophysitis and osteoporosis are differentiated by:
 A. age
 B. weight
 C. height
 D. sex
 ...A...
208. In an acceleration-deceleration accident, you would have a hyperextension injury with;
 A. axial compression
 B. hyperflexion
 C. axial
 ...B...
209. A woman with increased blood calcium and alkaline phosphatase shows resorption with calcium density of the distal clavicle on radiograph. Which of the following is suggested?
 A. tuberculosis
 B. hyperparathyroidism
 C. hypocalcemia
 D. nephrotic syndrome
 ...B...
210. The most common spinal condition associated with ulcerative colitis is;
 A. scoliosis
 B. sacroiliitis
 C. spondylolisthesis
 D. spinal canal stenosis
 ...B...
211. Osteochondritis dissecans affects which of the following;
 A. lateral femoral condyle
 B. medial femoral condyle
 C. medial tibial condyle
 D. lateral tibial condyle
 ...B...
212. The normal hematocrit for healthy adult male is:
 A. 19.0
 B. 27.0
 C. 47.0
 D. 82.0
 ...C...
213. Which normocytic anemia has a decreased hematocrit but an increased reticulocyte count?
 A. hemolysis
 B. polycythemia vera
 C. pernicious anemia
 D. iron deficiency anemia
 E. cholestasis
 ...A...
214. Which of the following lab values is the first to rise within a few hours after a myocardial infarct?
 A. LDH
 B. SGOT
 C. CPK
 D. SGPT
 ...C...
215. What is the most appropriate lab test for insidious pain in the great toe.
 A. uric acid
 B. creatinine
 C. thyroxine
 D. alkaline phosphatase
 ...A...
216. In a patient with hepatic dysfunction, what test would you run?
 A.
 B. BUN (possible answer)
 217. The sensory portion of the corneal reflex is via the _____ nerve.
 A. VII
 B. V
 C. IV
 D. I
 ...B...
218. The physical findings of L5 radiculopathy most closely resembles;
 A. tarsal tunnel syndrome
 B. peroneal nerve paralysis/injury
 C. tibial neuritis
 D. Guillain-Barré syndrome
 ...B...
219. Which of the following is related to Klumpke's paralysis?
 A. hyperabduction syndrome
 B. brachial plexus neuropathy
 C. costoclavicular syndrome
 ...B...
220. Which of the following is characteristic of an UMN?L?
 A. spastic paralysis
 B. hyporeflexia
 C. atrophy
 D. hypotonia
 ...A...
221. Which of the following is the most accurate sign of a mechanical nerve root lesion?
 A. sharp and shooting pain
 B. radiating pain
 C. unilateral hyporeflexia
 D. a positive straight leg raiser
 ...B...
222. What produces stabbing or knife like pains?
 A. reflex esophagitis
 B. tic douloureux
 C. Bell's palsy
 D. myositis
 ...B...
223. Klumpke's Palsy is caused by injury to which plexus?
 A. cervical
 B. brachial
 C. lumbar
 D. sacral
 ...B...
224. A 26 year old female comes into the office with neck pain, stiffness, and a positive Lhermitte's. What is the condition?
 A. strain of cervical musculature
 B. multiple sclerosis
 C. meningitis
 D. rheumatoid arthritis
 ...B...
225. A 68 year old male presents with a history of a stiff neck, an ataxic gait and (+) Rombergs. He complains that it is difficult to walk in the dark. He is able to do the finger to finger test with eyes open.
 A. lateral spinal thalamic
 B. posterior column
 C. cortical spinal tract
 D. cerebellar
 ...B...
226. A patient has weakness of wrist flexion and a depressed triceps reflex. What nerve root is suspected?
 A. C6
 B. C7
 C. C8
 D. T1
 ...B...
227. A 28 year old male with 2 weeks of severe headache, right periorbital pain with lacrimation that wakes him up after 2 to 3 hours of sleep. He had similar episodes 3 months ago.
 A. brain tumor
 B. Bell's palsy
 C. cluster headaches
 D. migraine headache
 ...C...
228. Which of the following cranial nerves is exclusively motor?
 A. vagus
 B. facial
 C. trigeminal
 D. optic
 ...no answer A best?...
229. Which cranial nerve is not tested with the cardinal fields of gaze?
 A. III
 B. IV
 C. V
 D. VI
 ...C...
230. Which of the following is the most appropriate management for a balanced lumbar major scoliosis of 30° in a 36 year old patient?
 A. body cast
 B. kinetic brace
 C. chiropractic adjustment
 D. prescribe aerobic exercises
 ...C...
231. Which therapy is contraindicated for acute cervical pain?
 A. cryotherapy within 48 hours
 B. ultrasound after 48 hours
 C. passive range of motion after 48 hours
 D. hydrocollator within 48 hours
 ...D...
232. During a diathermy session the patient should feel _____ throughout the session.
 A. no sensation
 B. a mild warmth
 C. a "hot" feeling
 D. alternating chills and fever
 ...B...
233. Which is contraindicated for ice?
 A. muscle contusion
 B. acute bursitis
 C. local circulation decreased
 ...C...
234. Cervical traction is contraindicated in which of the following:
 A. osteoporosis
 B. multiple sclerosis
 C. canal stenosis
 ...A...
235. A 42 year old male has right shoulder pain of 2 months duration. There was no etiology of the pain, and the pain was of gradual onset. He has moderate pain with decreased range of motion. MRI reveals adhesive capsulitis. What would be contraindicated in this case?
 A. shoulder brace
 B. passive range of motion
 C. hot packs
 h. manipulation
 ...A...
236. What is the greatest range of motion at the coxofemoral joint?
 A. flexion
 B. extension
 C. abduction
 D. adduction
 ...A...
237. What muscle is located superficially to the midshaft of the clavicle?
 A. pectoralis minor
 B. trapezius
 C. deltoid
 D. platysma
 ...D...
238. Which position of the foot will the posterior tibial tendon be best palpated?
 A. dorsiflexion, inversion
 B. plantar flexion, inversion
 C. dorsiflexion, eversion
 D. plantar flexion, eversion
 ...B...
239. When the sternoclavicular joint dislocates, what position is the head of the clavicle in:
 A. superior, medial
 B. anterior, medial
 C. lateral, inferior
 D. lateral, superior
 ...A...
240. Which of the following muscles are responsible for hip flexion?
 A. quadriceps
 B. iliopsoas
 C. adductor magnus
 D. sartorius
 ...B...
241. What muscles are the primary hip flexors?
 A. iliopsoas
 B. sartorius
 C. rectus femoris
 D. gracilis
 ...A...
242. Which is the strongest atlanto-axial ligament?
 A. alar
 B. transverse
 C. apical
 D. inferior cruciate
 ...B...

243. Which structure limits anterior motion of atlas on axis?

- A. transverse ligament
- B. alar ligament
- C. anterior longitudinal ligament
- D. apical ligament

...A...

244. The normal vertebral motor unit has ___ number of motions.

- A. 4
- B. 5
- C. 6
- D. 7

...C...

245. The caudal portion of thyroid cartilage is palpated at what level?

- B. C3
- C. C5
- D. C7

...C...

246. What muscle is involved in the extension of the shoulder?

- A. deltoid
- B. infraspinatus
- C. supraspinatus
- D. pectoralis

...A...

247. Which muscle is a 1° internal rotator of the shoulder?

- A. infraspinatus
- B. teres minor
- C. latissimus dorsi
- D. posterior deltoid

...C...

248. What muscle does external rotation of the shoulder involve?

- A. rhomboids
- B. infraspinatus
- C. pectoralis major
- D. posterior deltoid

...B...

249. Which food has the lowest caloric value?

- A. butter
- B. spinach
- C. chocolate
- D. white bread

...B...

250. What vitamin aids in healing and is an antioxidant?

- A. vitamin A
- B. thiamin
- C. vitamin C
- D. vitamin D

...C...

251. Which foods are rich in vitamin D?

- A. legumes and wheat germ
- B. green leafy and red palm oil
- C. fish liver oil

...C...

252. Which vitamin helps with the absorption of calcium and iron.

- A. ascorbic acid
- B. thiamine
- C. pyridoxine

...A...

253. Diarrhea, flatulence, glossitis and cheilosis are classic of ____ deficiency.

- A. Vitamin A
- B. Vitamin C
- C. folic acid
- D. pantothenic acid

...C...

254. Fiber is highly recommended in diet because:

- A. cures hemorrhoids
- B. massages alimentary canal
- C. blocks mineral absorption
- D. fully digested

...B...

255. Which of the following aid in the management of carpal tunnel syndrome?

- A. B1
- B. B3
- C. B6
- D. B12

...C...

256. What microelement encourages liver production of the glucose tolerance factor?

- A. zinc
- B. selenium
- C. chromium
- D. magnesium

...C...

257. The technique of carbohydrate loading is used most effectively to:

- A. rapid weight loss before an athletic event
- B. increased muscle strength
- C. increased recovery time after an athletic event
- D. increased muscle endurance

...D...

258. Which mineral is indicative in an immune deficiency?

- A. zinc
- B. selenium
- C. Vitamin D
- D. Vitamin C

...A...

259. Which of the following are signs and symptoms of Vitamin A toxicity?

- A. hyperkalemia, psychosis, and GI disorders
- B. headache, hepatomegaly, peeling skin
- C. anorexia, renal failure, metastatic carcinoma
- D. hypothermia, coma

...B...

260. A patient with low back pain has scoliosis with a left convexity and a left posterior transverse of L5 is fixated on extension. What is the proper pisiform contact correction.

- A. left thenar contact on right mamillary process
- B. left pisiform contact on left mamillary process
- C. right pisiform on right mamillary process
- D. right pisiform contact on left mamillary process

...D...

261. In an acute phase what is the most appropriate initial treatment?

- A. adjust as many times to increase nerve flow
- B. at different phases do to allow the body to heal itself

...B?...

262. To adjust a left convexity scoliosis with a right prominent transverse process using a double thenar contact the patient should be;

- A. combination
- C. supine
- D. prone

...D...

263. What diversified listing would most likely correlate with the diagram above?



- A. superior
- B. inferior
- C. posterior
- D. anterior

...B...

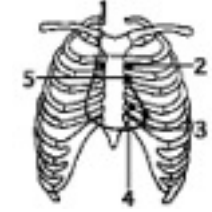
264. Which one represents direct pyramidal tract?



- A. 1
- B. 2
- C. 3
- D. 4

...B...

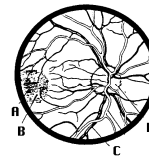
265. Normally the S1 sound is best heard at which location?



- A. 1
- B. 2
- C. 3
- D. 4

...C...

266. Where is the fovea located at?



- A. 1
- B. 2
- C. 3
- D. 4

...A...

267. Which picture shows a transverse section of thoracic vert?



...B...

268. Identify the radiographic condition;



- A. unilateral calcification of iliolumbar ligament
- B. sacroillitis
- C. unilateral sacralization of L5
- D. facet tropism

...A...

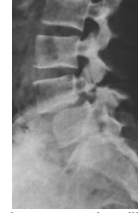
269. A 12 year old female patient presents complaining of one month low back pain and fatigue. There was no history of trauma. Exam reveals tenderness and muscle spasm at L1. X-Ray shows flattened L1. IVD was normal, UA and ESR \ normal.



- A. AS
- B. TB
- C. infection
- D. eosinophilic granuloma

...D...

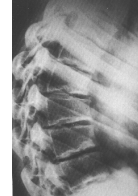
270. A 45 year old male presents with bilateral leg numbness and pins and needle sensation. Based on the information and the radiograph which of the following would be next in your course of care;



- A. flexion-extension film
- B. adjust patient prone
- C. stretching and strengthening exercises
- D. refer for surgery

...C...

271. Identify the following condition;



- A. infection
- B. osteoporosis
- C. Scheuerman's disease
- D. TB

...C...

272. A 24 year old male presents with a 2 month history of a warm, swollen painful left knee. He also has a two year history of general stiffness, and a two week history of right ankle pain. Which would be most significant?
 A. WBC < 11,000
 B. ESR: 28
 C. Uric acid:3
 D. HLA-B27 is present
 ...B...
273. The patient's probable diagnosis is;
 A. rheumatoid arthritis
 B. gout
 C. ankylosing spondylitis
 D. psoriatic arthritis
 ...B...
274. A 25 year old female presents with fatigue and a history of right knee pain for six weeks. Her right knee is warm and effused. She has had back pain and stiffness over the past two years. She cannot fully flex her lumbar spine. She has pitting of several fingernails and an erythematous scaly plaque near the umbilicus. She has swelling and pain in her wrist and hand. The PIP and DIP joints of her right ring finger are swollen. Which is a likely cause of the back pain and stiffness?
 A. lateral entrapment syndrome
 B. disc protrusion
 C. spondylitis
 D. spondylolisthesis
 ...C...
275. The above condition is best classified as?
 A. dermatomyositis
 B. nonarticular rheumatoid arthritis
 C. neurogenic arthropathy
 D. seronegative spondyloarthropathy
 ...D...
276. What would be the best diagnosis?
 A. gout
 B. Reiter's
 C. psoriatic arthritis
 D. rheumatoid arthritis
 ...C...
277. What would her hand x-ray show?
 A. "pencil in a cup" deformity
 B. soft tissue calcification
 C. rheumatoid nodules
 D. tophi
 ...A...
278. A 35 year old postal worker says when he walks, he has shaky hands and feet. He also presents with nystagmus and scanning speech. He has a positive Babinski bilaterally and has hyperreflexia. He is unable to perform movements. Which diagnosis can be eliminated?
 A. too many symptoms to be from one lesion
 B. chronic progressive disease
 C. lesion is above the tentorium
 D. cerebellar lesion
 ...C...
279. What diagnosis is most likely?
 A. ALS
 B. polio
 C. multiple sclerosis
 D. multiple sclerosis
 ...D...
280. A 19 year old presents with pain in right knee for a two week duration. His mother states he has had a right sided limp for the past month. Patrick's test is negative but patient feels pain in the knee during the test. Upon digital palpation of the knee, there was no pain elevated.
 A. x-ray both hips
 B. x-ray both knees
 ...A...
281. Which is the most likely diagnosis?
 A. Osgood Schlatter
 B. slipped capital epiphysis
 C. congenital hip dysplasia
 D. Legg-Calve-Perthe's
 ...B (d if 9years old)...
282. The type of pain is likely to be;
 A. somatosomatic
 B. viscerosomatic
 C. somatovisceral
 D. psychosomatic
 ...A...
283. A 55 year old male presents with mid-thoracic pain. X-ray shows no fractures or pathological processes. After two weeks, he has numbness from his knees down and more acute thoracic pain. Your best clinical impression is:
 A. muscular tear
 B. costochondral separation
 C. metastatic carcinoma
 D. thoracic radiculitis
 ...C...
284. What is representative of ventricular depolarization?
 A. ST segment
 B. QRS wave
 C. inverted T wave
 D. Q wave
 ...B...
285. What is the most common finding on examination of acute otitis media?
 A. pain on slight tugging of auricles
 B. loss of light reflex
 C. edema of external canal
 ...B...
286. Pain in tongue and hard palate relieved by taking nitroglycerin is suggestive of?
 A. angina pectoris
 B. MI
 ...A...
287. A nine year old boy presents with fever and a macular rash. This most suggests;
 A. rubella
 B. scarlet fever
 C. rheumatic fever
 ...C?...
288. Upon ophthalmoscopic exam, normal pulsations may be seen where in the retina?
 A. arteries only
 B. veins only
 C. both arteries and veins
 D. only in capillaries
 ...B...
289. A cough which is better when patient sits up may be seen in;
 A. lung abscess
 B. TB
 C. pleural effusion
 D. pulmonary embolism
 ...C...
290. Pain referred from the epigastrium to the tip of the right shoulder would most indicative of?
 A. acute appendicitis
 B. duodenal ulceration
 C. cholecystitis
 D. renal lithiasis
 ...C...
300. A patient presents with headache, fever, posterior cervical muscle spasm, tachycardia, weakness and irritability. The best diagnosis is?
 A. migraine headache
 B. meningitis
 C. middle ear infection
 D. cluster headache
 ...B...
301. Orthopnea is most likely seen with which condition?
 A. reflux esophagitis
 B. emphysema
 C. angina pectoris
 D. left sided heart failure
 ...D...
302. A 42 year old male presents with swelling in a single metacarpal joint with tenderness, redness and decreased range of motion. What condition would this NOT be?
 A. RA
 B. septic arthritis
 C. acute gout
 D. osteoarthritis
 ...D...
303. In auscultating breath sounds at the 1st and 2nd intercostal spaces anteriorly, and at the interscapular region, the sounds are:
 A. broncho-vesicular
 B. vesicular
 C. tracheal
 D. bronchial
 ...A...
304. What is most suggested in a patient with a chief complaint of fatigue, can't sleep, and diffuse pain?
 A. emphysema
 B. fibromyalgia
 C. hypertension
 D. pulmonary effusion
 ...B...
305. A 50 year old female with round, raised, irregular brown and blue expansile lesion of the skin?
 A. malignant melanoma
 B. fungoides
 C. Tinea versicolor
 ...A...
306. Spider angiomas are best characterized as being?
 A. more prevalent on lower extremities
 B. bluish in color
 C. a malignant melanoma precursor
 D. a normal variant
 ...D...
307. Which of the least likely cause of osteoporosis?
 A. heparin replacement
 B. corticosteroids
 C. hepatitis
 73. Cushing's
 ...C...
308. A boxer has had mid thoracic and right shoulder pain since a fight two days ago. Which of the following is not likely to be a cause of his pain pattern?
 A. bruised liver
 B. rib fracture
 C. subluxation
 D. stomach injury
 ...D...
309. Which of the following presents the greatest risk of heart disease?
 A. stress
 B. blood triglycerides
 C. tobacco smoking
 D. inactivity
 ...B...
310. Severe, recurrent dizziness lasting 5 to 15 seconds after a person goes from lying down to sitting or standing is characteristic of:
 A. transient ischemic attacks
 B. vertebral artery insufficiency
 C. Meniere's syndrome
 D. benign positional vertigo
 ...D...
311. Which of the following conditions would be found primarily in older individuals and not young ones;
 A. trigeminal neuralgia
 B. migraine headache
 C. tension headache
 D. paranasal sinusitis
 ...A...
312. Which condition may be caused by mid-thoracic compression fractures;
 A. Klippel-Feil syndrome
 B. Gibbus
 ...C...
313. A 12 year old presents complaining of pinching in the right inguinal region. Upon examination, a small mass was noted. Light digital pressure causes the mass to retract into the abdominal cavity. Which of the following is the most dangerous complication that can result?
 A. systemic infection
 B. onset of necrosis
 C. inguinal pain
 D. internal bleeding
 ...B...
314. Which would most likely lead to splenic rupture?
 A. congenital heart failure
 B. acute appendix
 C. mononucleosis
 D. acute cholecystitis
 ...C...
315. Which test would you use initial for a patient with dizziness?
 A. Romberg's
 B. Rinne
 C. Weber
 ...A...
316. In performing a Gonstead sitting chair adjustment with a laterally fixated atlas the patient's head should be:
 A. rotated 45° to the side of contact
 B. rotated 45° opposite the side of contact
 C. slightly laterally flexed to the side of contact
 D. slightly laterally flexed opposite the side of contact
 ...C...

317. What palpation landmark is located at the level of the 5th cervical vertebra?
 A. carotid tubercle
 B. hyoid bone
 C. first cricoid ring
 D. lower portion of the thyroid cartilage
 ...D...
318. What is the best technique for the case management of a patient with low back pain which increases with rotational stress?
 A. lumbar pull
 B. flexion-distraction
 C. side lying
 D. sitting
 ...B...
319. What would be indicated on a subluxated L3 with increased shearing and hyperlordotic lumbar curve?
 A. double thenar on high low
 B. pisiform unsupported abdominal
 C. push/pull on bench type
 ...A?...
320. During what stage of life does syringomyelia develop?
 A. infancy
 B. first decade of life
 C. 30-40
 D. 50-60
 ...A if onset, (C if symptoms)...
321. What nerve supplies the posterior aspect of the heel?
 A. tibial
 B. obturator
 C. femoral
 D. deep peroneal
 ...A...
322. Which of the following is not associated with CN V?
 A. palpation of masseter muscles
 B. corneal reflex (wisp of cotton)
 C. gag reflex
 D. sensation to face
 ...C...
323. A patient has loss of two-point discrimination, but proprioception and light touch are still present. Which is likely to be the affected lobe?
 A. temporal
 B. parietal
 C. occipital
 D. frontal
 ...B...
324. A patient with an 8 year history of multiple sclerosis would most likely relate that they were taking which of the following prescription medications?
 A. histamine
 B. cortisone
 C. barbiturates
 D. muscle relaxers
 ...B...
325. The sensory innervation of T2 will be found?
 A. lateral upper arm
 B. first two digits
 C. axilla
 D. nipple
 ...C...
326. A patient shows weakness upon dorsiflexion with inversion of the foot. Plantar flexion with eversion is strong. Which is the involved nerve?
 A. tibial
 B. common peroneal
 C. deep peroneal
 D. L5 nerve root
 ...C...
327. An 83 year old female patient presents with resting tremor, cogwheel motion in passive movement, and generally slow movement. She is likely suffering from?
 A. hepatolenticular degeneration
 B. Huntington's chorea
 C. paralysis agitans
 D. multiple sclerosis
 ...C...
328. Which of the following is not innervated?
 A. periosteum
 B. meniscus
 C. tendon
 D. ligament
 ...B...
329. What is the most likely pupillary finding in a patient that presents with headaches, neck pain, and a recent history of a stab wound on the right side of the neck that completely interrupted the cervical sympathetic chain?
 D. dilated right
 E. constricted right
 F. dilated bilaterally
 G. constricted left
 ...B...
330. Most characteristic of Parkinson's disease is:
 A. slapping tremor
 B. intention tremor
 C. hand shakes all the time
 D. tremors while asleep
 ...D...
331. A 60 year old female runner logs 60 miles a week. She recently hurt her hip with a mis-step off a curb. Medical x-rays in recumbent position are negative. Three adjustments to the left ilium has not reduced the problem. What would you do?
 A. standing A-P and lateral lumbo/pelvic
 B. CT
 D. bone scan
 E. HLA B-27
 ...A...
332. A patient hurt his back lifting a 150 lb. box. He has pain in low back and SI joint. X-ray shows subluxation of L4 and left SI as well as a grade II anterolisthesis of L5. What is the worst sign to prevent conservative care?
 A. + Valsalva
 B. + straight leg raiser
 C. hypoesthesia over lateral leg (L5)
 ...C...
333. Which of the following would a person with chronic lumbar facet syndrome be least able to do?
 A. abdominal crunches
 B. stationary bicycle
 C. hamstring stretches
 D. leg raises
 ...D...
334. A 65 year old female presents with severe cervical and thoracic pain. She is 4'9" tall, 98 pounds and last saw a chiropractor six years ago. The most appropriate management of this patient is?
 A. refer for anti-inflammatory and drug treatment
 B. rest in bed with ice for two weeks
 C. take x-rays and adjust if appropriate
 D. refer for neurosurgical consult
 ...C...
335. A patient has a history of migratory joint pain. Which test would you order first?
 A. blood chemistry
 B. radiographs
 C. CT
 D. MRI
 ...A...
336. A patient has pain in his anterior shoulder that doesn't go away. Your next step would be:
 A. x-ray of chest
 e. check shoulder arm syndrome
 ...no answer...
337. A young female presents with pain in her hand and tender nodules at the end of her digits that are irritated by gold and emotional stress. She occasionally has red ulcers. What question would you ask to help you make diagnosis?
 A. How much alcohol do you drink?
 B. How much do you smoke?
 C. Do you work with your wrist flexed?
 D. Do you urinate a lot?
 ...B...
338. What is not appropriate for the management of fibromyalgia?
 A. light aerobic exercise such as walking
 B. home cryotherapy
 C. evaluation of person's depression state
 D. develop better sleep patterns
 ...D...
339. A 25 year old male presents with fever, chills and right knee pain. On examination, the right knee is swollen, warm and tender. Radiographs reveal a distended joint capsule. What would be the next procedure?
 A. motion palpation
 B. trial manipulation
 C. aspiration
 D. arthroscopy
 ...C...
340. A 36 year old male presents with foot/ankle pain after hiking the previous weekend. There is tenderness in the third metatarsal. Radiographs were negative for both fracture and pathology. What is your initial treatment?
 A. MRI
 B. retake radiographs in two weeks
 C. manipulate the foot
 ...B...
341. Which would you NOT do in a patient with a tor or stretched Achilles tendon?
 A. tape ankle in dorsiflexion
 B. 1/4 inch heel lifts bilaterally
 ...A...
342. The chest x-rays of a patient with chronic emphysema would not exhibit which of the following?
 A. prominent retrosternal space
 B. highly arched diaphragm on the lateral projection
 C. hyperlucent lung fields
 D. enlarged pulmonary artery
 ...B...
344. A patient's chest film demonstrated a solitary lesion with an air fluid level. What is the diagnosis?
 A. abscess
 B. mitral stenosis
 C. asthma
 f. chronic bronchitis
 ...A...
345. Which of the following would cause left sided straightening, atrial enlargement and pulmonary artery enlargement?
 A. mitral stenosis
 B. tricuspid stenosis
 C. pulmonary regurgitation
 D. aortic regurgitation
 ...A...
346. In patient presenting with Down's syndrome, ankylosing spondylitis, rheumatoid arthritis, psoriatic arthritis or Reiter's syndrome, which of the following x-rays would be taken before initiating cervical adjustments?
 A. pillar view
 B. cervical oblique
 C. flexion lateral cervical
 D. extension lateral cervical
 ...C...
347. Brain stem symptomatology may be commonly associated with the abnormal position of the odontoid superior to ____ line.
 A. Ferguson's
 B. Chamberlain's
 C. atlas plane
 D. George's
 ...B...
348. Approximately what percent of gallstones are visible and readily identifiable on a plain film radiograph?
 A. 1
 B. 10
 C. 50
 D. 90
 ...B...
349. In a T2 weighted magnetic resonance image, the cerebro-spinal fluid and healthy intervertebral discs have a high intensity signal and will appear:
 A. dense
 B. white
 C. black
 D. blurred
 ...B...
350. What is the most common site of elbow fracture in children?
 A. supracondylar
 B. epicondylar
 C. intercondylar
 D. condylar
 ...A...
351. A 26 year old male presents with swelling of right knee. X-ray reveals erosion of the femoral-tibial articulation. What could account for the etiology?
 A. anterior cruciate rupture
 B. medial collateral tear
 C. extensive use of knee brace
 D. arthroscopic surgery
 ...D...

352. Pain in the ankle while walking down stairs or downhill is problem in _____ joint?

- A. mortise (talotibial)
 - B. talofibular
 - C. talofibular
 - D. tarsal
- ...A...

353. Which ligament restricts rotation of the head?

- A. alar
 - B. transverse
 - C. capsular
 - D. apical
- ...A...

354. When associated with anemia, which of the following would indicate hemolytic anemia?

- A. uremia
 - B. jaundice
 - C. waxy skin
 - D. pica
- ...B...

355. What effects the yellow color in urine?

- A. specific gravity
 - B. blood
 - C. glucose
 - D. ketones
- ...B...

356. A 74 year old male presents with a recent onset of throbbing headaches in the parieto-temporal region. He also has had recurrent joint pain, visual disturbances and has felt ill for the last two weeks. In addition to a CBC, what other test would complete the profile?

- A. UA
 - B. LE prep
 - C. ESR
- ...D...

357. What test is used to determine the rate of absorption of B-12?

- A. Benedict's
 - B. Coombs
 - C. Dick
 - D. Schilling
- ...D...

358. A patient presents with cheilosis and angular stomatitis. The patient may benefit from which of the following nutritional therapies?

- A. essential fatty acids
 - B. riboflavin
 - C. vitamin C
 - D. vitamin D
- ...B...

359. A patient with goiter should be advised to avoid the following foods:

- A. cabbage, soybeans
 - B. milk, eggs, cheese
 - C. liver, kidney, other organ meats
 - D. wheat, corn, barley
- ...A...

360. Which modality will most likely cause endorphin release?

- A. 3-5 Hertz interferential
 - B. 120-130 Hertz
 - C. pulsed galvanic
- ...A...

361. Which of the following modalities has bactericidal effects?

- A. ultrasound
 - B. infrared
 - C. cold quartz ultraviolet
 - D. hot quartz ultraviolet
- ...C...

362. Which of the following techniques would be used to increase joint range of motion by contacting the specific muscle and allowing the antagonist muscle to relax.

- A. reciprocal inhibition
 - B. proprioceptive neuromuscular facilitation
 - C. petrissage
- ...B...

363. A male presents with a quadriceps contusion. What would be most therapeutic?

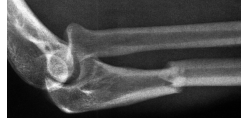
- A. stretch quadriceps
 - B. exercise quadriceps
 - C. brace affected knee
- ...A...

364. Which of the following depicts a median sagittal view of a thoracic vertebra?



...B...

365. Identify the fracture in the diagram below.



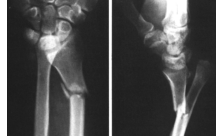
- A. intercondylar fracture
 - B. compaction fracture
 - C. Monteggia fracture
 - D. comminuted fracture
- ...C...

366. A 52 year old female presents with low back and bilateral leg pain. The x-rays suggest possible;



- A. TB of pelvis
 - B. multiple myeloma
 - C. osteolytic metastatic carcinoma
 - D. fibrous dysplasia
- ...C...

367. Radiographs of a man who fell on his outstretched hand reveal:



- A. Galeazzi fracture
 - B. perilunate dislocation
 - C. Colles fracture
 - D. scaphoid fracture
- ...A...

368. A 50 year old male presents with low back pain of six months duration and urinary incontinence for the last 6 weeks. His lateral lumbar x-ray suggests what condition?



- A. metastatic carcinoma
 - B. Paget's disease
- ...A...

369. A 30 year old female presents in your office with a history of a hamstring injury 8 years ago. What is your diagnosis based on this information and the radiographs below;



- A. ischial tuberosity avulsion fracture
- B. gout
- C. non-union of ischium 2° to Paget's

370. Which technique uses a knee-chest table? Gonstead

...A...

370. Which of the following is the most common cause of hypocalcemia?

- a. renal tubule dysfunction
 - b. parathyroidectomy
 - c. obstructive bowel syndrome
 - d. malnutrition
- ...B...

371. Which of the following does not occur when the right SCM contracts?

- A. right head rotation
 - B. left head rotation
 - C. extension of the head
 - D. right lateral flexion of the head
- ...A...

372. The cephalic portion of thyroid cartilage will be found at which vertebral level;

- A. C2
 - B. C4
 - C. C6
 - D. T1
- ...B...

373. Which of the following muscles attaches to the pes anserine bursa?

- a. adductor longus
 - b. piriformis
 - c. semitendinosus
 - d. vastus medialis
- ...C...

374. Which of the following is an external rotator of the shoulder?

- A. teres major
 - B. infraspinatus
 - C. latissimus dorsi
 - D. trapezius
- ...B...

375. Cervical extension is limited by all except?

- A. nuchal ligament
 - B. superior articular process contacting inferior articular process
 - C. anterior longitudinal ligament
 - D. spinous contact
- ...A...

376. Adjustment of which area is most likely to affect splenius capitis muscle?

- A. occiput
 - B. C2
 - C. C3
 - D. T3
- ...A...

377. Regarding an L5 adjustment, which would be contraindicated for an L5 spondylolisthesis?

- A. hand pisiform on Hi-Lo table
 - B. hand pisiform on knee-chest table
 - C. side posture push (pisiform) on flat bench
 - D. side posture pull on a flat bench
- ...B...

378. A crossed bilateral pisiform adjustment is appropriate for which segmental level?

- A. C5
 - B. T6
 - C. L3
 - D. sacrum
- ...B...

380. Which of the following is contraindicated for spinal traction technique?

- A. degenerative disc disease
 - B. lower limb vascular insufficiency
 - C. spondylolisthesis
 - D. lateral recess stenosis
- ...B...

381. A 56 year old male patient presents with low back pain. He has pain and numbness in both legs. Upon examination a 15% spondylolisthesis of the L4 vertebra is noted. What is the proper course of treatment?

- A. adjust and prescribe corrective exercises
 - B. adjust on pelvic bench with pisiform push
 - C. adjust on pelvic bench with pull move
 - D. refer to surgeon
- ...D...

382. Which of the following should be observed when using an adjustive technique which utilizes shoulder drop?

- A. elbow slightly bent
 - B. elbow straight
 - C. episternal notch above contact point
 - D. line of drive through the opposite shoulder
- ...A...

383. Which is an appropriate cervical adjustment?

- A. double thenar push
 - B. double transverse
 - C. side lying pull
 - D. modified rotary break
- ...D...

384. What is the adjustment of choice for a rotation only correction?
 A. transverse pisiform
 B. transverse pisiform with torque
 C. double pisiform with torque
 ...**A**...
385. Which technique is concerned with the level of the disc?
 A. Thompson
 B. S.O.T.
 C. Gonstead
 D. Grostic
 ...**C**...
386. Which of the following is contraindicated for a spondylolisthesis;
 A. traction
 B. flexion exercises
 C. side posture
 D. knee chest
 ...**D**...
387. Diffuse idiopathic skeletal hyperostosis is synonymous with which of the following:
 A. Behçet's syndrome
 B. Sjögren's syndrome
 C. Forestier's disease
 D. Heberden's nodes
 ...**C**...
388. Which view best demonstrates the fovea capitis?
 A. L/S spot
 B. AP pelvis
 C. frog leg hip
 ...**B**...
389. What does the "s" in the "abc's" of x-ray analysis stand for?
 A. symmetry
 B. skeletal structure
 C. soft tissue
 D. swollen
 ...**C**...
390. What is used in x-ray filtration?
 A. tin
 B. copper
 C. lead
 D. aluminum
 ...**D**...
391. The fovea capitis is best demonstrated by the following view:
 A. A-P pelvis
 B. P-A chest
 C. tunnel knee
 D. lateral sacrum
 ...**A**...
392. X-ray shows necrotic area in upper lobe of kidney. What would you suspect?
 A. TB
 B. nephroblastoma
 C. adenocarcinoma
 ...**A**...
393. Which would not be included in a differential diagnosis in a case with a solitary ivory vertebra?
 A. osteoblastic metastasis
 B. hyperparathyroidism
 C. Hodgkin's lymphoma
 D. Paget's disease
 ...**B**...
394. Transverse ligament integrity is best demonstrated on which x-ray?
 A. cervical oblique
 B. cervical flexion/extension
 C. base posterior
 D. A-P odontoid
 ...**B**...
395. What is the most dense on x-ray?
 A. bone
 B. gas
 C. water
 D. air
 ...**A**...
396. What does not cause thoracic kyphosis?
 A. Scheuermann's
 B. scoliosis
 C. Pott's
 D. long thoracic nerve paralysis
 ...**D**...
397. Which will not cause or affect ligament laxity in cervicals
 A. psoriasis
 B. RA
 ... **NO ANS**...
398. A 30 year old patient presents with low back pain. X-rays reveal a poorly developed lamina with a decreased interpedicular distance of L4. The pedicle is short and thick. These findings would indicate:
 A. lamina hypertrophy
 B. pedicle hypertrophy
 C. relative stenosis
 D. disc protrusion
 ...**C**...
399. Which of the following conditions has the potential for the worse complication;
 A. diabetes mellitus type I
 B. diabetes type II
 C. diabetes insipidus
 D. gestational diabetes
 ...**A**...
400. Prolonged and repeated intake of which of the following drugs will be least likely to increase the risk of a cerebrovascular accident due to a cervical manipulation?
 A. acetaminophen
 B. aspirin
 C. coumadin
 D. oral contraceptives
 ...**A**...
401. What abnormality most often accompanies a congenital scoliosis?
 A. gastrointestinal
 B. respiratory
 C. genitourinary
 D. cardiovascular
 ...**B**...
402. A 32 year old presents with a chief complaint of cervical pain, he has a previous diagnosis of ankylosing spondylitis. Although his lumbar are fused, he can almost bend over to touch his toes.
 A.
 B. misdiagnosis
 C. normal hip mobility
 ...**C**...
403. Which condition causes reddish flushing of the face?
 A. insipidus
 B. polycythemia vera
 C. hemolytic anemia
 D. pernicious anemia
 ...**B**...
404. Which of the following symptoms would a patient with classic migraine say yes to and no to in a case of common migraine?
 A. visual hallucinations
 B. photophobia
 C. nausea
 D. prodrome phase
 ...**A**...
405. A 3 year old child presents with dry, barking cough and inspiratory stridor suggests;
 A. croup
 B. asthma
 C. acute bronchitis
 D. pneumonia
 ...**A**...
406. Where would you check for peripheral hypertension?
 A. peripheral pulses
 B. eye
 ...**NO ANS**...
407. In examination of the external auditory canal of an adult, you pull the ear;
 A. up and back
 B. down and back
 C. down and out
 D. up and out
 ... **A**...
408. Abdominal pain that is exacerbated by recumbency is most likely caused by
 A. pancreatitis
 B. urethritis
 C. intervertebral disc prolapse
 D. duodenal ulcer
 ...**A**...
409. Which of the following symptoms revealed during case history is most likely to suggest a male with spontaneous pneumothorax?
 A. dull, achy chest pain
 B. productive cough
 C. dyspnea
 D. pleural friction rub
 ...**C**...
410. The development of leukoplakia is from the consumption of
 A. alcohol
 B. tobacco
 C. fatty foods
 D. cheese-whiz
 ...**B**...
411. A male patient presents with epigastric pain. What questions should you ask?
 A. Have you been on NSAIDs
 B. does it wake you up at night
 ...**A**...
412. Which of the following is the most common lung condition to cause cyanosis?
 A. pulmonary arteriovenous fistula
 B. 1° mediastinal tumor
 C. chronic bronchitis
 D. superior vena cava syndrome
 ...**C**...
413. Which of the following would be the most likely cause of a person with halitosis?
 A. lung abscess
 B.
 ...**A**...
414. Foot or ankle swelling in a patient with a history of hypertension indicates which condition?
 A. angina pectoris
 B. myocardial infarct
 C. congestive heart failure
 D. diabetes mellitus
 ...**C**...
415. Which of the following is the most effective physical exam procedure to gauge the effects of chronic hypertension on distal vascular structures and tissues?
 A. abdominal palpation
 B. serial blood pressure measurement
 C. thoracic percussion
 D. funduscopy
 ...**D**...
416. A 7 year old boy presents with stiff neck, headache, low grade fever and a (+) Kernig's. The most likely diagnosis?
 A. acute cervical myofascitis
 B. acute acquired torticollis
 C. cervical lymphadenopathy
 D. acute viral meningitis
 ...**D**...
417. A young patient presents with chronic diffuse pain and sighs frequently during your interview. This is most likely to be;
 A. depression
 B. acute asthma
 C. cardiac disease
 D. chronic bronchitis
 ...**A**...
418. A 38 year old female presents with lack of coordination in her right upper and lower extremities. Physical examination reveals "shock-like" pain upon cervical flexion. The most likely diagnosis is:
 A. poliomyelitis
 B. Parkinson's disease
 C. multiple sclerosis
 D. spinal meningitis
 ...**C**...
419. During physical exam a patient has acute stomach pain, hypotension, weak, rapid pulse, cool moist skin. Which condition below is most likely?
 A. acute UTI
 B. shock
 C. regional ileitis
 D. abdominal tumor
 ...**B**...
420. A 40 year old male patient presents with pinkish, red blisters on his chest wall. The lesions are well defined, clear in the middle. This is most characteristic of?
 A. pityriasis rosacea
 B. herpes simplex
 C. intertrigo
 D. impetigo
 ...**B**...
421. A 12 year old male presents with blood in his right ear. What cause would be least likely?
 A. serous otitis media
 B. otitis externa
 C. foreign body
 D. ruptured ear drum
 ...**A**...

422. What would a patient with cellulitis present with?
 A. pain, redness, swelling and lack of function
 B. no pain, bluish in color, function
 C. numbness from shoulder down to fingers
 D. pain in abdominal region
 ...**A**...
423. 35 year old Jewish male smoker with chest pain;
 A. Buerger's
 B. saddle thrombus
 ...**A**...
424. In which would a family history be most contributory?
 A. bronchitis
 B. TB
 C. viral pneumonia
 ...**B**...
425. Which of the following is the most likely diagnosis young male left lower quadrant pain?
 A. diverticulitis
 B. appendicitis
 C. peritonitis
 ...**C**...
426. Distension of the abdomen with the absence of bowel sounds suggests?
 A. aortic aneurysm
 B. ascites
 C.
 ...**B**...
427. A person with a pulmonary embolism is least likely to have;
 A. pleural friction rub
 B. tachypnea
 C. tachycardia
 D. hyperresonance
 ...**D**...
428. A 54 year old male train conductor presents with inability to lift his arm above his head. Reflexes are slightly decreased with weakness of the upper extremity muscles. There is no tenderness to palpation. What is the likely diagnosis?
 A. biceps rupture
 B. cerebro vascular accident
 C. supraspinatus
 D. infraspinatus
 ...**C**...
429. Which of the following organs is least likely to refer pain to the back?
 A. heart
 B. gallbladder
 C. testicle
 D. pancreas
 E. liver
 ...**C**...
430. Bilateral saddle paresthesia of lower limbs with intermittent claudication suggests;
 A. Brown-Sequard's
 B. coarctation of the aorta
 C. tethered spine
 D. cauda equina syndrome
 ...**D**...
431. The end bulbs of Krause detect;
 A. pain
 B. heat
 C. cold
 D. touch
 ...**C**...
432. Occlusion of either the vertebral artery or the posterior cerebellar artery with subsequent loss of pain and temperature sensations on one side of the face and entire opposite half of the body is know as?
 A. Quinquad's sign
 B. Shy-Dragger syndrome
 C. hemiballismus
 D. Wallenberg's syndrome
 ...**D**...
433. A herniated C5-C6 disc will most likely to impinge on which nerve root?
 A. C4
 B. C5
 C. C6
 D. C7
 ...**C**...
434. The Achilles reflex tests the integrity of the _____ nerve.
 A. L4
 B. L5
 C. S1
 D. S2
 ...**C**...
435. Imbalance to the sympathetic nervous system including tinnitus, vertigo, nasal disturbances, pharyngeal paresthesia most commonly resembles
 A. Guillian-Barre
 B. Barre-Lieou
 C. Klippel-Feil
 D. basilar invagination
 ...**B**...
436. With a lesion of the neurological level L5, which muscle action is most likely affected?
 A. knee extension
 B. foot plantar flexion
 C. foot dorsiflexion
 D. hip adduction
 ...**C**...
437. Which of the following conditions most commonly causes foot drop?
 A. anterior compartment syndrome
 B. femoral neuritis
 C. peroneal tendonitis
 D. Osgood Schlatter
 ...**A**...
438. Which would be "most normal" on the Wexler scale for reflexes?
 A. 1+
 B. 2+
 C. 3+
 D. 4+
 ...**B**...
439. Dermatomes classically associated with umbilicus and lower xiphoid process?
 A. T7-T10
 ...**A**...
440. Which nerve root applies to the brachioradialis reflex?
 A. C5
 B. C6
 C. C7
 D. C8
 ...**B**...
441. A herniated disc at L4-L5 will most likely produce weakness of which of these muscles?
 A. adductor magnus
 B. vastus lateralis
 C. flexor digitorum longus
 D. extensor digitorum longus
 ...**D**...
442. What type of electric stimulation has a peaked current with narrow peak width and a high peak intensity?
 A. high volt galvanic
 B. low volt galvanic
 C. Russian stimulation
 D. interferential
 ...**A**...
443. What would give relief of pain using the mechanism of the gate theory
 A. interferential 5000 Hz
 B. TENS 1-5
 C. TENS 80-100
 D. ultrasound
 ...**C**...
444. McKenzie exercises are contraindicated in the management of which of the following conditions?
 A. central protrusion
 B. post lateral protrusion
 C. lumbar canal stenosis
 D. interspinous ligament (type 1 sprain)
 ...**C**...
445. Which of the following is the most important exercise therapy goals for a patient with rheumatoid arthritis?
 A. decrease muscle size
 B. increase muscle/fat ratio
 C. increase aerobic endurance
 D. decrease flexion contractures
 ...**D**...
446. What type of ultrasound do you use in chronic myofasciitis?
 A. continuous high frequency
 B. continuous low frequency
 C. pulsed high frequency
 D. pulsed low frequency
 ...**A**...
447. What muscle exercise is considered negative?
 A. concentric
 B. isometric
 C. eccentric
 D. isokinetic
 ...**C**...
448. Therapeutic heat should be applied to an acute grade I/II ankle sprain approximately ____ after injury.
 A. 12 hrs
 B. 24 hrs
 C. 3 days
 D. 5 days
 ...**C**...
449. What has the sequelae of a high eosinophilic count?
 A. bronchial asthma
 B. viral pneumonia
 C. bacterial pneumonia
 ...**A**...
450. Methiolite iodide test for parasitic ova requires a _____ sample.
 A. stool
 B. sputum
 C. spinal fluid
 D. urine
 ...**A**...
451. What would most likely be increased in a patient with hepatitis?
 A. BUN
 B. AST
 C. alkaline phosphatase
 D. CPK
 ...**C**...
452. Serum calcium will be increased with
 A. multiple myeloma
 B. osteoporosis
 C. hyperparathyroidism
 D. hypoadrenalism
 ...**C**...
453. Increased TSH levels indicate?
 A. hyperpituitarism
 B. hyperthyroidism
 C. hyperparathyroidism
 D. hypothyroidism
 ...**D**...
454. Serum uric acid level necessary to produce gout like symptoms?
 A. 2
 B. 4
 C. 6
 D. 10
 ...**D**...
455. What is the normal thrombocyte count?
 A. 10,000-20,000
 B. 40,000-60,000
 C. 50,000- 100,000
 D. 150,000-300,000
 ...**D**...
456. What age would there be high levels of serum alkaline phosphatase;
 A. 10-14
 B. 20-35
 C. 35-40
 D. 50-65
 ...**A**...
457. A young patient is unable to straighten her knee. Which would be the most likely diagnosis?
 A. meniscus tear
 B. posterior cruciate
 C. Osgood Schlatter's
 D. lateral collateral ligament
 ...**A**...
458. How long do you have the patient hold their head for the vertebro-basilar maneuver?
 A. 5 seconds
 B. 10 seconds
 C. 30 seconds
 D. 2 minutes
 ...**C**...
459. A woman presents having fallen on her knee with foot in forced plantar flexion. What structure is most likely to be injured?
 A. anterior cruciate
 B. posterior cruciate
 C. medial collateral
 D. Achilles tendon
 ...**B**...
460. The McMurray's test determines the integrity of which structure?
 A. posterior cruciate
 B. anterior cruciate
 C. medial meniscus
 D. medial collateral
 ...**C**...

461. Lhermitte's sign is characterized by sharp radiating pain down the spine and into the upper or lower extremities is caused by:

- A. dural plaques
 - B. dentate ligament torsion
 - C. dural sleeve adhesions
 - D. meningeal irritation
- ...B...

462. Which orthopedic test best differentiates sciatic pain and disk herniation from another source?

- A. Hibb's
 - B. Valsalva
 - C. SLR
 - D. Bowstring
- ...D...

463. Which of the following should be given to a child who has longer than normal healing time and leukopenia?

- A. vitamin A
 - B. vitamin E
 - C. selenium
 - D. zinc
- ...D...

464. What symptom would you find in a person with milk intolerance?

- A. diarrhea
 - B. vomiting
 - C. constipation
- ...A...

465. A diet high in natural fiber is desirable because;

- A. massages the alimentary tube
 - B. reduces mineral absorption
 - C. it is completely digested
 - D. cures hemorrhoids
- ...A...

466. What gives you the most amount of essential fatty acids?

- A. wheat (whole grain and cereals)
 - B. vegetable seeds
 - C. organ meat
 - D. vegetable oil
- ...D...

467. Person has problem with glucose metabolism. What element are they likely to be deficient in?

- A. tin
 - B. selenium
 - C. copper
 - D. chromium
- ...D...

468. What is contra-indicated in a patient recovering from intervertebral disk syndrome?

- A. swimming
 - B. walking
 - C. prolonged bed rest
 - D. stretching
- ...C...



469. What nutritional advice is contraindicated for a 65 year old woman with mild to moderate osteoporosis?

- A. increased exposure to sunlight
 - B. reduce simple carbohydrate intake (increased refined carbohydrates in diet)
 - C. reduce fat intake (increased fats in diet)
 - D. increase fiber intake
- ...B...

470. A 60 year old woman presents with a three week history of pain localized in the right sacroiliac area. She states that the pain is dull and achy exacerbated by activity and alleviated by rest. The pain intensity has not changed. Past history includes a mastectomy ten years ago and no history of recent trauma. Initial x-rays of the area are unremarkable. After two weeks of treatment the patient's condition has not improved. Which of the following is the most appropriate next step in the case management?

- A. continue to treat her for two weeks
 - B. order a CT of the lumbar spine
 - C. order an MRI of the pelvis
 - D. order bone scan
- ...D...

471. A 30 year old male farm worker has acute phase of upper trapezius strain. Which of the following would be the proper initial case management?

- A. bed rest
 - B. avoid forward bending
 - C. rehab exercises
 - D. avoid pushing, pulling, lifting
- ...C...

473. A 15 year old female goes to the high school nurse. Her examination reveals a 15° scoliosis.

Objective findings are normal with no aberrant motion. Which would be the most reasonable course of action?

- A. refer to orthopedic consult
 - B. nothing is wrong
 - C. adjust to remove curve and increase motion
 - D. re-evaluate at regular intervals
- ...D...

474. Which of the following would you do for a young female with lumbar hyperlordosis?

- A. strengthen abdominal muscles
 - B. strengthen hamstrings and decrease iliopsoas
- ...B...

475. A man injures his arm playing racquetball when he hit the wall with an outstretched hand. There is no tenderness at the scaphoid, but there is pain and clicking upon movement. Which exercises would you not suggest?

- A. wrist flexion, ulnar deviation
 - B. wrist flexion, radial deviation
 - C. dorsiflexion, radial deviation
 - D. dorsiflexion, ulnar deviation
- ...C...

476. An affirmative answer to which of the following history questions most indicates malignancy?

- A. Do you smoke cigarettes?
 - B. Do you eat a lot of fatty foods?
 - C. Is your pain aggravated by movement?
 - D. Is your pain aggravated by rest?
- ...D...

477. Which information obtained from the patients personal history most likely indicated metastatic bone disease?

- A. change in bowel habits
 - B. pain aggravated at rest
 - C. waking up to urinate more than one time at night
 - D. wake up stiff
- ...B...

478. 62 year old male presents to your office with constant, dull low back pain that does not increase with exertion. Low blood pressure that is not relieved by exercise. He has bilateral saber shin deformity and his wife notes an increase in his hat and shoe size over the past few years. Radiographs reveal cortical thickening and osteoporosis circumscripta. Which of the following procedures would support your diagnosis?

- A. orthopedic tests
 - B. laboratory studies
 - C. EMG
 - D. neurological tests
- ...B...

479. What is the most likely x-ray presentation?

- A. concave vertebral endplates
 - B. pencil thin outline
 - C. ivory vertebra
 - D. platyspondyly
- ...C...

480. What is the least likely complication of this diagnosis?

- A. osteosarcoma
 - B. basilar invagination
 - C. multiple myeloma
 - D. otosclerosis
- ...C...

481. What is the most likely diagnosis?

- A. achondroplasia
 - B. osteitis deformans
 - C. osteogenesis imperfecta
 - D. osteomyelitis
- ...B...

482. Identify anterior corticospinal tract.

- A. 1
 - B. 2
 - C. 3
 - D. 4
- ...B...

483. Identify a Greenstick fracture

...A...

484. The line in the diagram represents:

- a. Chamberlain's
 - b. McRae's
 - c. Ferguson's
 - d. Bowman's
- ...A...

485. Identify the line in the radiograph used for slipped capital femoral epiphysis;
- Shenton's line
 - McNabb's
 - Kohler's
 - Klein's line

... D...

486. A 52 year old female complains of chronic left shoulder pain. What is the most likely etiology of the abnormal finding in her affected shoulder.



- rotator cuff calcific tendinitis
 - healed bone infarct of the proximal humerus
 - avascular necrosis of the proximal humerus
 - enchondroma of the proximal humerus
- ... B...

- a. A 29 year old male stepped off curb and now presents with back pain.



- transitional segment
- L5 fracture
- ankylosing spondylitis
- spina bifida occulta

... D...

488. A 35 year old male with decreased cervical ROM.



- surgical block C4-7
- congenital block C4-7
- RA
- AS

... B...

489. Which of the following aadjustive techniques utilizes a quick tricep thrust while the trunk of the adjuster remains stationary?
- Gonstead
 - Grostick
 - toggle recoil
 - S.O.T.
- ... B...

490. A female patient presented with diffuse pain that began in the upper abdominal area. The symptoms most resemble;
- ruptured appendix
 - ruptured ectopic pregnancy
 - perforated duodenal ulcer
 - renal lithiasis
- ... A...

491. Pain in the left lower quadrant would most likely be due to involvement of?
- appendix
 - bladder
 - diverticula
 - stomach
- ... C...

492. What is the average heart rate of a newborn infant?
- 70
 - 90
 - 130
 - 170
- ... C...

493. Which vital sign does not increase in a normal child?
- pulse
 - temperature
 - respiration
 - blood pressure
- ... D...

494. Vincent's angina is an inflammatory process of the ___?
- bladder
 - stomach
 - kidney
 - mouth
- ... D...

495. In a patient suspected of having a hearing problem, what would be performed initially?
- Rinne's test
 - ticking watch test
 - audiometry (talking)
 - caloric irrigation (labyrinthine test)
- ... B...

496. What is the most likely diagnosis of an apparently healthy 25 year old female with generalized pruritis, recurrent night sweats, and recent 15 pound weight loss. What is the most likely diagnosis?
- multiple myeloma
 - pregnancy
 - Maigne's syndrome
 - Hodgkin's lymphoma
- ... D...

497. A 42 year old male presents in your office with right knee dysfunction accompanied by atrophy of the calf muscles. There is very little pain or swelling of the knee. What is the diagnosis?
- tuberculosis
 - traumatic synovitis
 - Sudecks bone atrophy
 - gonococcal arthritis
- ... C...

498. A 22 year old male presents in your office complaining of pain and morning stiffness for the past two years. In the last 6 months he has also had bouts of knee swelling and tenderness which went away. He now has a swollen, hot and tender ankle. Lab reveals; arthritis tests were negative; RBCs, lymphocytes and ESR were elevated; and a serum uric acid level was 7.5. What is the best diagnosis?
- ankylosing spondylitis
 - acute RA
 - gonococcal arthritis
 - gout
- ... D...

499. A 45 year old male presents with allergic rhinitis. Regardless of the causative factors, which of the following would he have an increased susceptibility to?
- upper respiratory infection
 - electrolyte imbalance
 - temporal neuralgia
 - irritable bowel syndrome
- ... A...

500. With lung impairments, what is the most accurate measurement of lung function?
- inspiratory capacity
 - expiratory reserve volume
 - vital capacity
 - total lung capacity
- ... C...

501. A male with brief unilateral severe headaches occurring several times daily for several weeks, with long periods of remission is indicative of which headache type?
- cluster
 - tension
 - temporal arteritis
 - common migraine
- ... A...

502. What type of pain is associated with a myocardial infarct?
- knife-like and stabbing
 - squeezing and pressing
 - ripping and tearing
- ... B...

503. A blood pressure which is 15 mm Hg higher on the right arm than on the left indicates;
- pathology in the low arm
 - pathology in the high arm
 - abdominal aneurysm
 - aortic bifurcation
- ... A...

504. Which of the following are characteristics of a non-malignant breast tumor?
- hard and firm
 - non-tender mass
 - freely moveable tender mass
 - single, irregular shape
- ... C...

505. General bluish of the skin coloration and oral mucosa suggests;
- central cyanosis
 - peripheral cyanosis
 - CO poisoning
 - polycythemia vera
- ... A...

506. A twelve month old child previously healthy presents with a red maculopapular rash on the trunk and a fever for 3 days suggests;
- rubeola
 - rubella
 - roseola infantum
 - erythema infectiosum
- ... C...

507. Central loss of vision may be due to;
- cataracts
 - macular degeneration
 - glaucoma
 - papilledema
- ... B...

508. An 8 year old male presents with pain, spasms and stiffness in the neck;
- he noticed it when he woke up in the a.m.
 - he knows the reason he has it.
- ... NO ANS...

509. A 56 year old male presents with low back pain radiating into the medial thigh. Which of the following would indicate the onset of acute prostatitis?
- pain occurred while lifting heavy boxes for several hours
 - pain occurred when climbing up and down a ladder to put things on a shelf
 - awakened with pain at 1 a.m. without any precipitating factors
 - pain occurred suddenly after sitting for several hours then standing
- ... C...

510. Which of the following would relieve a condition of acute pancreatitis?
- no position is comfortable
 - lying on side with knees to chest
 - supine with the knees bent
 - lying prone
- ... B...

511. Which of the following would show similar characteristics as acute prostatitis?
- urinary tract infection
 - carcinoma of the prostate
 - carcinoma of the stomach
- ... A...

512. Pain during and after urination suggests;
- prostate hyperplasia
 - kidney infection
 - bladder inflammation
 - ureter obstruction
- ... C...

513. Which of the following would be least indicative of chronic prostatitis upon digital palpation?
- slightly enlarged, boggy and non-tender
 - hard, irregular mass
 - scattered, firm areas of fibrous
 - enlarged, soft, boggy and tender
- ... B...

514. What is the best position for a patient with pancreatic pain?
- sitting
 - supine
 - fetal position
 - standing
- ... A...

515. What position best relieves the symptoms in a patient with spinal stenosis?
a. seated
b. flexion
c. extension
d. supine
...A...
516. A 26 year old male patient presents with epistaxis after prolonged physical activity. After a history is taken you might conclude the problem is due to;
a. the patient is underweight
b. the patient lives in a humid (high altitude) climate
c. the patient is a mild hemophiliac
d. the patient is hypotensive
...C...
517. A 73 year old female presents with anemia and uremia. What following tests should you perform?
...NO ANS...
517. A 39 year old female presents with right leg weakness, tingling of the right arm and leg with occasional dizziness. She would most likely have which of the following additional symptoms;
a. a change in the stool color
b. visual disturbances
c. hypermenorrhea
d. skin rash
...B...
519. Which of the following first starts with myalgia and skin lesions, then weeks to months later may show cardiac and neurological findings?
a. syphilis
b. Reiter's
c.
d. Lyme disease
...D...
520. A tanned, slender woman presents with weakness, nausea, vomiting and a BP of 80/50. She also complains of dizziness upon sitting up from a supine position. The most likely diagnosis is;
a. reactive hypoglycemia
b. liver cirrhosis
c. adrenal cortical insufficiency
d. acute viral infection
...C...
521. Which of the following is a cause of ascites?
a. cholecystitis
b. pancreatitis
c. cirrhosis
d. pyogenic peritonitis
...C...
522. A 48 year old male presents with chest pain on exertion, radiating to the left side of the neck. Which of the following questions will help you to attain a workable diagnosis?
a. Do you have pain voiding urine?
b. Do you have weakness in the extremities?
c. How long does the pain persist after you stop to rest?
d. Do your parents have cancer?
...C...
523. When a patient complains of knee pain, the doctor should determine the duration of the pain to differentiate a ___ from ___;
a. disease process ; injury
b. malignancy ; non-malignancy
c. ligament ; tendon
d. chronic ; non-repairing
...A...
524. Hyper-reflexia, convulsions, unilateral facial spasms when tapping over the parotid gland and a choked disk on ophthalmological exam all indicate;
a. hypocalcemia
b. hypercalcemia
c. hypothyroidism
d. hyperthyroidism
...A...
525. Hyperkalemia may cause;
a. coma, confusion
b. GI atony, psychosis
c. paralysis, chest pain
...C...
526. Which of the following is a cause of hypokalemia?
a. acute trauma
b. nephrotic syndrome
c. diabetes mellitus
...B...
527. What neurological level supplies the sensory innervation to the middle finger?
a. C5
b. C7
c. T1
d. T3
...B...
528. What innervates the hypothenar area;
a. median nerve
b. radial
c. ulnar
d. musculocutaneous
...C...
529. Innervation of the axilla is via;
a. C6
b. C7
c. T2
d. T4
...C...
530. What disorder involves the anterior horn?
a. myasthenia gravis
b. multiple sclerosis
c. poliomyelitis
d. tabes dorsalis
...C...
531. Which of the following muscle gradations indicates a lack of muscle contractibility;
a. 0
b. 1
c. 2
d. 5
...A...
532. What is the most likely cause of a steppage gait?
a. neurosyphilis
b. muscular dystrophy
c. Parkinsonism
d. peroneal muscle paralysis
...D...
533. Cranial neuropathy commonly seen with facial hemiparesis and associated with the second stage of A.I.D.S.;
a. CN III
b. CN IV
c. CN V
d. CN VII
...D...
534. Numbness in the lower extremities is due to;
a. LeRiche's syndrome
b. Guillain-Barre syndrome
c. myasthenia gravis
...B...
535. A 56 year old presents with a 23 history of shooting pain down both legs. For the past month until the present, he has had difficulty walking in the dark. Upon neurological examination, he shows a decreased patellar and Achilles reflexes. The exam reveals that the eye accommodates but does not react to light. The patient presented to the office with a wide based ataxic gait. What type of brain lesion does this suggest?
a. thalamic
b. cerebellar
c. posterior column
...C...
536. What blood test would be indicated?
a. CBC
b. acid phosphatase
c. VDRL
d. UA
...C...
537. What condition is suggested by the symptoms?
a. tabes dorsalis
b. Parkinson's
c. cauda equina syndrome
d. brain tumor
...A...
538. The piriformis muscle is likely to affect the;
a. femoral
b. sciatic
c. posterior femoral cutaneous
d. lateral femoral cutaneous
...B...
539. Piriformis syndrome most resembles;
a. osteomyelitis
b. canal stenosis
c. nerve root compression
d. meralgia paresthetica
...C...
540. A person with Parkinson's disease will have which of the following;
a. tics
b. athetosis
c. chorea
d. tremors
...D...
541. Which exercise would least likely cause an asthmatic attack?
a. jogging
b. playing tennis
c. swimming
d. running
...C...
542. A patient presented with low back pain, negative SLR and normal reflexes. After two months of chiropractic care the back pain is gone but now he has a positive SLR. What is the next course of action?
a. refer for surgery
b. treat for two more months and re-evaluate
c. chiropractic care exacerbated the problem
d. do trigger point and electrical stimulation therapy
...C...
543. A patient comes into your office with pain of 2-3 weeks duration. He has pain with breathing, coughing, during chest compression and trunk rotation. He also has inflammation and acute tenderness at the left sternal border. What would you do?
a. finish the exam and treat as needed
b. refer to a cardiologist immediately
c. refer to a urologist
d. refer to a respiratory specialist
...A...
544. A 72 year old female presents with sudden thoraco-lumbar pain after sneezing. What would be the best treatment plan;
a. adjust point of pain in seated position
b. refer for a CT scan
c. recommend ice and NSAIDs
d. x-ray before treatment
...D...
545. A 56 year old female presents with intermittent low back pain. History reveals a knee surgery and an appendectomy. X-rays demonstrate DJD throughout the lumbar, decreased lordosis, and staples are noted in the right lower quadrant. What would be your next course of care?
a. adjust the lumbar spine
b. take additional x-rays
c. request a CBC
d. ice and ultrasound of the lumbar region
...A...
546. A 35 year old female presents with wrist and hand pain which has been diagnosed as carpal tunnel syndrome. She has been under conservative care for two months. She now displays a greater weakness in grip strength, but experiences slightly less pain. Which of the following case management procedures are appropriate at this time?
a. re-take cervical and wrist x-rays
b. introduce wrist strengthening exercises
c. continue care for an additional month then re-evaluate
d. refer for surgical consultation
...B...
547. To whom would you refer a 65 year old male with urinary incontinence, dyspnea and edema of the lower leg?
a. oncologist
b. urologist
c. cardiologist
d. neurologist
...C...
548. What do you do for a patient with meralgia paresthetica?
a. trigger points
b. tell her to lose some weight
...B...
549. When treating an obese female with meralgia paresthetica using interferential current, you should place the padover which area?
a. over the L5 paraspinal lumbar musculature
b. over the L2 paraspinal lumbar musculature
c. over the gluteal muscles
d. over the iliotibial band
...B...
550. Proper placement for therapeutic UV is best accomplished at _____ from the skin surface?
a. 30°
b. 45°
c. 60°
d. 90°
...D...

551. The best modality to use with an acute ankle sprain?
a. contrast baths
b. low volt galvanic
c. ice
d. heat
...**C**...
552. What form of electromagnetic energy has the shortest wavelength?
a. heat
b. sound
c. visible light
d. ultraviolet
...**D**...
553. What is the best setting for interferential to help reduce edema in an ankle sprain?
a. 0-10
b. 80-120
c. 120-150
d. 160-250
...**A**...
554. A 40 year old man was chopping wood 2 days ago. He presents with elbow pain, and your exam reveals a diagnosis of acute lateral epicondylitis. Which procedure would be contraindicated?
a. immobilize the elbow
b. continuous ultrasound
c. battery powered TENS
d. fluoromethane vapo-coolant spray
...**A**...
555. What modality should not be operated near water?
a. SW diathermy
b. high volt galvanic
c. ultrasound
d. microwave diathermy
...**A**...
556. Which muscle crosses 2 joints?
a. rectus femoris
b. vastus lateralis
c. vastus medialis
d. vastus intermedius
...**A**...
557. Which muscle is the primary stabilizer of the patella during the last 15° of leg extension?
a. rectus femoris
b. vastus lateralis
c. vastus medialis
d. vastus intermedius
...**C**...
558. Palpatory tenderness at the left pelvic brim and the lateral femoral condyle on the left is most likely due to?
a. biceps femoris tendonitis
b. popliteal tenosynovitis
c. lateral cruciate tendonitis
d. iliotibial band fasciitis / friction
...**D**...
559. What muscle provides the most strength for closing the jaw;
a. medial pterygoid
b. platysma
c. temporalis
d. omohyoideus
...**C**...
560. The posterior tibial pulse can best be palpated?
a. posterior and inferior to the medial malleolus
b. anterior and superior to the lateral malleolus
c. posterior and inferior to the lateral malleolus
d. anterior and superior to the medial malleolus
...**A**...
561. The hook of the hamate and the pisiform form the:
a. volar tunnel
b. tunnel of Guyon
c. carpal tunnel
...**B**...
562. Which line goes along the inferior neck of the femur and connects through the superior aspect of the obturator foramen?
a. Skinner's line
b. Shenton's line
c. Klein's line
d. Mickulicz' angle
...**B**...
563. What is the best method of measuring the amount of anterior slippage of an anterolisthesis?
a. Eisenstein's method
b. Meyerding's method
c. Van Akkervekan's method
d. center edge angle
...**B**...
564. Which of the following would most likely cause a Jones fracture?
a. forced eversion
b. forced inversion
c. direct trauma to the base of the 5th metatarsal
d. direct trauma to the calcaneus
...**B**...
565. Jones fracture most commonly occurs from
a. plantar flexion and inversion
b. plantar flexion and eversion
c. dorsiflexion and inversion
d. dorsi flexion and eversion
...**A**...
566. Which of the following fractures will have posterior displacement?
a. Pott's
b. Smith's
c. Colle's
d. ...**C**...
567. Which of the following causes calcification of the articular cartilage?
a. pseudogout
b. Reiter's syndrome
c. Still's disease
d. systemic lupus erythematosus
...**A**...
568. A young man presents with an elevated ESR, hip redness and swelling. The proximal femur had metaphysis expansion with cortical destruction. This most suggests;
a. osteomyelitis
b. fibrosarcoma
c. Ewing's sarcoma
d. osteosarcoma
...**D**...
- 569c. A 50 year old male presents with acute thoracolumbar pain. He stated there was no recent trauma, but he has been experiencing recent episodes of fatigue. Radiographs reveal a recent compression fracture of T10. Which of the following would indicate the least favorable condition?
a. step defect
b. decrease anterior vertebral height
c. decreased posterior vertebral height
d. osteopenia
...**C**...
- 570c. What diagnostic tool would best differentiate an old versus a new compression fracture?
a. MRI
b. bone scan
c. diagnostic ultrasound
d. dual photon absorbtion
...**B**...
- 571c. Who would be the best specialist for referral?
a. neurosurgeon
b. oncologist
c. nutritionist
...**B**...
573. What is the most common location for osteochondritis dessicans?
a. tibial tuberosity
b. femoral head
c. medial femoral condyle
d. lateral femoral condyle
...**C**...
574. Multiple myeloma primarily effects which cell type?
a. lymphocytes
b. monocytes
c. plasmocyte
d. neutrophils
...**C**...
575. All of the following conditions shows up after the age of 40 except?
a. psoriatic arthritis
b. scleroderma
c. gout
d. ankylosing spondylitis
...**D**...
576. What is the most commonly injured area of the cervical spine?
a. C1-2
b. C3-4
c. C5-6
d. C7-T1
...**C**...
577. A lateral radiograph reveals a radiolucent line on the posterior arch of atlas. The spinolaminar line is intact.
a. APLC and APOM radiographs
b. take a full cervical series
c. take the patient to the hospital
...**A**...
- 578d. A 26 year old male presents with pain and paresthesia on a small area of the anterior thigh and entire medial leg. He states that the pain sometimes goes to the medial foot. The Achilles reflex is normal. He has weakness upon resisted dorsiflexion and inversion on the right foot. He is able to heel walk. Which of the following muscles would be weak?
a. extensor digitorum
b. extensor hallucis longus
c. peroneus lingus
d. tibialis anterior
...**D**...
- 579d. Which disc level is affected in this condition?
a. L3-4
b. L4-5
c. L5-S1
d. L2-L3
...**A**...
- 580d. If, after specific lumbar adjustments there is no change in the patient symptoms, which of the following should be done?
a. corrective adjusting for 4 weeks
b.
c. refer for further diagnosis and re-evaluate
...**C**...
581. Which of the following is best for a medial meniscus problem?
a. valgus stress
b. anterior drawer
c. Mc Murray's test
d. Apley's distraction
...**C**...
582. Which of the following exacerbates a medial meniscus tear the most?
a. full extension
b. flexion past 90°
c. accessory rotation movements
d. posterior to anterior tibial shear
...**C**...
583. A patient has pain upon abducting his arm and shoulder at 60-120°;
a. adhesive capsulitis
b. rotator cuff
c. supraspinatus tendonitis
...**C**...
584. Muscle contraction with no change in the length is known as?
a. isokinetic
b. isometric
c. isotonic
d. dynamic
...**B**...
585. Patrick's test involves ____, ____, and ____ rotation of the hip.
a. flexion, abduction, external
b. flexion, adduction, external
c. extension abduction, internal
d. extension, adduction, internal
...**A**...
586. Mill's maneuver is done for what purpose?
a. stretch a ligament
b. stretch a tendon
c. strengthen a muscle
...**B**...
587. Lateral condylitis pain is reproduced with which of the following actions?
a. wrist flexion
b. wrist extension
c. elbow flexion
d. elbow extension
...**B**...
588. A supine patient flexes his head forward as the doctor pushes on his sternum;
a. Valsalva's
b. Kernig's
c. Dejerine's
d. Soto-Hall
...**D**...

589. Most rotation of the cervical spine occurs at;
 a. occiput-C1
 b. C1-C2
 c. C4-5
 d. C6-7
 ...**B**...

590. Vertebro-basilar syndrome during extension and lateral flexion involves which of the following segments;
 a. occiput and C1
 b. C1-C2
 c. C2-C3
 d. C3-C4
 ...**B**...

591. What does the basilar artery supply?
 a. cerebellum
 b. sensorimotor cortex
 c. sensory cortex
 d. paravertebral motor cortex
 ...**A**...

592. Constriction of the axillary artery occurs in which test?
 a. Adson's
 b. Eden's
 c. Wright's
 d. Allen's
 ...**C**...

593. Which of the following causes compression of the subclavian artery during Adson's test?
 a. scalenus anticus
 b. trapezius
 c. pectoralis minor
 d. teres minor
 ...**A**...

594. A patient has chronic patellar dislocation. A neoprene sleeve is worn to push the patella in which direction?
 a. lateral to medial
 b. medial to lateral
 c. superior to inferior
 d. inferior to superior
 ...**A**...

595. What is the first muscle to atrophy after a knee injury?
 a. vastus lateralis
 b. vastus medialis
 c. rectus femoris
 d. vastus intermedius
 ...**B**...

596. Which muscle should be strengthened on a patient with chondromalacia patella?
 a. vastus lateralis
 b. vastus medialis
 c. rectus femoris
 d. vastus intermedius
 ...**B**...

597. A child presents in your office with a Occiput-C1 fixation with a posterior transverse on the side of Atlas laterality would show;
 ...**NO ANS**...

598. A 26 year old female presents with complaints of neck pain and weakness during shoulder abduction and medial rotation of the right arm. Motion palpation reveals fixations at the level of; OCC-C1, C2-3, C4-5, C6-7. Which vertebral motion segment is the probable area of involvement?
 a. occiput-C1
 b. C2-3
 c. C4-5
 d. C6-7
 ...**C**...

599. The C1 segment has gone to the right and posterior on that side. In order to do a toggle recoil side posture,
 a. patient has the right side down and the doctor uses the superior hand
 b. patient has the left side down and the doctor uses the inferior hand
 c. patient has the right side down and the doctor uses his superior hand
 d. patient has the left side down and the doctor uses the superior hand
 ...**D**...

600. Bi-manual cervical traction using a towel with a patient lying supine is best used for:
 a. upper thoracic compression fracture
 b. acute muscle spasm
 c. paresthesia
 ...**B**...

601. To perform a long axis extension of the hip joint, the femur should be in the following position;
 a. full external rotation
 b. full internal rotation
 c. 30° abduction
 d. neutral
 ...**C**...

602. To mobilize a superior first rib in a patient with left thoracic outlet syndrome, the patient is supine with his head extended, laterally flexed to the ____ and slightly rotated to the ____.
 a. left / right
 b. left / left
 c. right / left
 d. right / right
 ...**A**...

603. A patient presents with non-radiating low back pain. X-rays reveal a Grade II spondylolisthesis. On static palpation you discover a restriction on left rotation. How would you adjust this patient?
 a. with the patient prone using an L5 spinous contact
 b. with the patient in a side lying position using a mammillary contact on the side closest the table
 c. with a seated lumbar rotational move
 d. with the patient supine, knees to chest and using a sacrum contact
 ...**C**...

604. What position would you NOT want to put a patient with a spondylolisthesis?
 a. supine
 b. flexion
 c. extension
 d. prone
 ...**C**...

605. Which of the following is contraindicated for flexion/distraction?
 a. lumbar paraspinal sprain
 b. grade III spondylolisthesis
 c. facet syndrome
 d. lumbar disc syndrome
 ...**B**...

606. A patient has a right sacroiliac extension fixation (the P.S.I.S. is fixated in anterior and superior). Which of the following is the appropriate adjustment set-up?
 a. right side up / P.S.I.S. contact
 b. left side up /ischial tuberosity contact
 c. right side up / ischial tuberosity contact
 d. left side up / P.S.I.S. contact
 ...**C**...

607. A 36 year old male presents with a thoracic outlet syndrome with pain and paresthesia in the left arm. Which of the following would be an appropriate position for manipulation;
 a. extend head, laterally flex head towards the left and rotate head towards the right
 b. extend head, laterally flex head towards the right and rotate the head towards the right
 c. extend the head, laterally flex head towards the left and rotate the head towards the left
 d. extend the head, laterally flex head towards the left and rotate head towards the right
 ...**A**...

608. An increase in the total bilirubin that is primarily a result of indirect bilirubin is likely due to;
 a. obstructive jaundice
 b. hemolytic process
 c. cancer of the head of the pancreas
 ...**B**...

609. Which of the following would indicate acute prostatitis?
 a. RBC normal, WBC 50,000/mm³
 b. acid phosphatase
 c. ANA
 d. ASO titre
 ...**A**...

610. Increased specific gravity of the urine indicates;
 a. diabetes insipidus
 b. vomiting and diarrhea
 c. increase fluid intake
 d. diabetes mellitus
 ...**D**...

611. Which laboratory finding is indicative of tissue destruction and repair or on going inflammation?
 a. lymphokinin
 b. CRP
 c. interleukin 2
 d. bradykinin
 ...**B**...

612. A normal CBC with an increased MCV and MCH is;
 a. macrocytosis
 b. microcytosis
 c. leukocytosis
 d. lymphocytosis
 ...**A**...

613. Linoleic acid is what type;
 a. essential amino acid
 b. nonessential amine acid
 c. essential fatty acid
 d. non-essential fatty acid
 ...**C**...

614. Which of the following most likely contains Provitamin A?
 a. pork potatoes
 b. green leafy vegetables, egg yolk
 c. yellow skin vegetables fish oils
 d. cheesy, milk and red meat
 ...**C**...

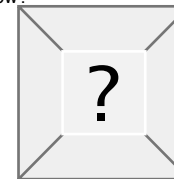
615. A patient with PKU who has NOT been following his diet. Your advice is;
 a. it doesn't matter about his diet

- b. it is critical that he follows a strict diet
 c. he can eat what he wants as long as he takes phenylalanine
 d. a little leeway is okay, but he should stay on his diet
 ...**D**...

616. Identify the eye abnormality in the diagram below

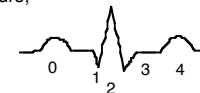
- a. senile macular degeneration
 b. pinguecula
 c. pterygium
 d. chalazion
 ...**C**...

617. The physiological splitting of the 2nd heart sound would be heard best at which area in the diagram below?



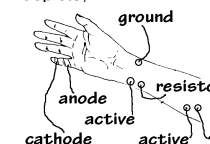
- a. 1
 b. 2
 c. 3
 d. 4
 ...**B**...

618. Identify the area where ventricular repolarization occurs;



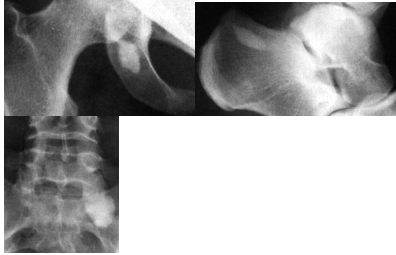
- a. 0
 b. 1-3
 c. 3
 d. 4
 ...**D**...

619. The set-up depicted in the diagram below best depicts;



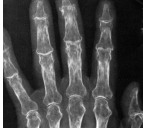
- a. EEG
 b. EKG
 c. nerve conduction velocity
 d. somato-sensory evoked potentials
 ...**C**...

620. Identify the findings in the radiographs below;



- a. healed bone infarct
 - b. bone islands
 - c. blastic mets
 - d. osteopoikilosis
- ...B...

621. Identify the diagnosis;



- a. RA
 - b. osteoarthritis
 - c. sarcoidosis
- ...B...

622. Diagnosis:



- a. sarcoidosis
 - b. scleroderma
 - c. psoriatic arthritis
 - d. DJD
- ...B...

623. Diagnosis:



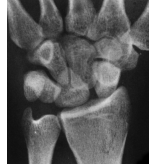
- a. Legg-Calve Perthes
 - b. slipped femoral epiphysis
 - c. hyperparathyroidism
- ...A...

624. Female presents with chronic pain and fatigue;



- a. 2° hyperparathyroidism
 - b. scleroderma
 - c. osteopoikilosis
- ...A...

625. A female presents with pain in the wrist, states that she fell on an outstretched hand. Based on the history and the radiographs below what is the likely cause of the pain?



- a. healed fracture of the scaphoid
 - b. Keinboch's
 - c. lunate dislocation
- ...C...

626. Diagnosis:



- a. ponticulus posticus
 - b. omovertebral bone
 - c. long nuchal bone
 - d. butterfly vertebra
- ...B...

627. The "unhappy triad" of O'Donoghue consists of the following:

- a. anterior cruciate, medial collateral, medial meniscus
 - b. lateral meniscus, lateral collateral, posterior cruciate
 - c. medial collateral, medial meniscus, posterior cruciate
 - d. anterior cruciate, lateral meniscus, medial collateral
- ...A...

628. A positive _____ test indicates a torn rotator cuff;

- a. Yergason's
 - b. apprehension
 - c. Dawbarn's
 - d. drop arm
- ...D...

629. What is not in the differential diagnosis of carpal tunnel?

- a. C6 nerve Discopathy
 - b. DeQuervain's disease
 - c. pronator teres syndrome
 - d. scalenus anticus syndrome
- ...D...

630. All of the following are related to carpal tunnel syndrome except for:

- a. pronator teres syndrome
- b. ape hand
- c. cubital tunnel syndrome

d. carpal tunnel
...C...

631. Relief of symptoms by raising the affected arm over the head is indicative of:

- a. thoracic outlet syndrome
 - b. cervical radiculitis
 - c. cervical cystitis
 - d. meningeal irritation
- ...B...

632. What condition is indicated when a patient's hand is placed on his/her head and it gives them relief?

- a. compressed nerve root
 - b. costoclavicular
 - c. thoracic outlet syndrome
- ...A...

633. Lateral hyperflexion injury to the cervical spine can cause an avulsion of which nerve root:

- a. C2
 - b. C3
 - c. C4
 - d. C5
- ...D...

634. What muscle affects the patella?

- a. semimembranosus
 - b. vastus medialis
 - c. popliteus
- ...B...

635. Torn anterior cruciate ligament injury most common symptom?

- a. Midline joint pain
 - b. Diffuse swelling
 - c. Severe pain
- ...B...

636. Which of the following is decreased in adhesive capsulitis?

- a. abduction/adduction ROM only
 - b. flexion/extension ROM only
 - c. Forward/backward movement of shoulder only
 - d. All ROM is lost
- ...D...

637. With frozen shoulder syndrome, movement is limited in _____?

- a. supraspinatus
 - b. deltoids
 - c. all ranges of motion
 - d. deltoids
- ...C...

638. In what position should the leg be to palpate the lateral collateral ligament? Best position to palpate the lateral collateral ligament is:

- a. Knee flexed 60 flexion, hip extended and externally rotated.
 - b. Knee flexed 90, hip extended and internally rotated.
 - c. Hip/knee fully extended
 - d. knee flexed at 90°, hip abducted and externally rotated
- ...D...

639. What is the name of the maneuver where the patient's head is turned to one side with ipsilateral arm raised and the examiner is palpating the radial artery?

- a. Adson's
 - b. Allen's
 - c. Thomas
 - d. Bakody's
- ...A...

640. Stretching of this muscle will alleviate the above condition.

- a. pectoralis minor
- b. serratus anterior

c. costoclavicular
d. scalenus anticus
...D...

641. Which tests for vertebral basilar insufficiency?

- a. Maigne's
 - b. Bakody's
 - c. Dejerine's triad
 - d. Homan's
- ...A...

642. A 40 year old female presents w/ leg pain, mild low back pain, double vision, aberrant gait, and mild paresthesia in both upper limbs. She has a history of previous episodes, similar symptoms lasting several days. There is no history of trauma and the radiographs are unremarkable. What is most likely diagnosis?

- a. systemic lupus erythematosus
 - b. amyotrophic lateral sclerosis
 - c. myasthenia gravis
 - d. multiple sclerosis
- ...D...

643. Which vertebral level controls the bladder?

- a. S3-S4
 - b. L3
 - c. T9 -10
- ...B...

644. Horner's syndrome commonly affects what nerve?

- a. sympathetic chain ganglia
 - b. parasympathetic chain ganglia
 - c. trigeminal nerve
 - d. ocular nerve
- ...C...

645. A patient presents with Horner's syndrome, which of the following is not a finding?

- a. meiosis
 - b. ptosis
 - c. iritis
 - d. anhidrosis
- ...C...

646. A patient presents with hoarseness, pain in left shoulder, ptosis and meiosis of the right eye.

- a. carotid avulsion
 - b. Pancoast tumor
 - c. MG
 - d. brainstem infarction
- ...B...

647. What nerve runs under transverse ligament?

- b. ulnar
 - c. median
 - d. radial
- ...C...

648. Walking on heel with the foot inverted is a function of what nerve level?

- a. L2
 - b. L4
 - c. S1
 - d. S2
- ...B...

649. What nerve supplies the deltoids?

- a. C6
- b. T1
- c. C7
- d. C5

...D...

650. Sensory loss of L2 would be demonstrated at what area?

- a. hip and buttocks
- b. anterior thigh and groin
- c. anterior thigh to medial knee
- d. anterior thigh to in knee

...B...

651. Syncope of vasovagal usually occurs;

- a. while standing
- b. during micturition
- c. during extreme rotation
- d. during fright or flight

...A...

652. A female patient with a history of panic attacks, palpitations, and tremors when holding arms out with her hands supinated suggests which type of tremor?

- a. intention
- b. resting
- c. psychological
- d. essential-familial

...C...

653. A young male presents in your office with headache, neck pain with a stab wound to the right of his neck. What pupillary action is most likely with complete severance of the cervical sympathetics?

- a. constricted right
- b. constricted left
- c. bilateral dilated
- d. dilated right

...A...

654. Choreiform movements are:

- a. involuntary coordinated movements
- b. repetitive, compulsive movements
- c. jerky purposeless involuntary movements.
- d. worm-like movements

...C...

655. TIA would predispose you to? What disease process has highest risk of TIA?

- a. cerebellar hemorrhage
- b. myocardial infarction
- c. cerebral hemorrhage
- d. atherosclerotic stroke

...D...

656. A patient presents with knife-like stabbing pain in chest, tachycardia, dyspnea suggests possible;

- a. pulmonary edema
- b. acute pericarditis
- c. myocardial infarction

...B...

657. What does blueness on or around the umbilicus indicate?

- a. Chvostek's sign
- b. Cullen's sign
- c. Chadwick's sign

...B...

658. Which of the following is suggested by this pain pattern?



- a. acute appendicitis
- b. kidney
- c. cholecystitis
- d. urethral obstruction

...B...

659. A 12-year old boy presents in your office crying up a storm because he had just had an altercation with another classmate the day before. He presented with bruised orbits, a nose bleed and a clear discharge from the ear. X-rays were negative for pathology. What is most serious complication?

- a. meningitis
- b. facial disfiguration
- c. sinus infection
- d. inhalation of a floating bone fragment

...A...

660. A 35 year old female presents with generalized weakness, moderate weight loss, and probable Addison's disease. Which of the following would she answer "no" to?

- a. Do you feel light-headed upon changing positions?
- b. Have you been vomiting or feeling nausea?
- c. Have you noticed a change in visual acuity?
- d. Have you noticed a change in skin color?

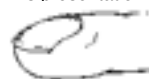
...C...

661. A patient presents in your office with Addison's like symptoms, which of the following is not seen?

- a. visual disturbances
- b. vomiting
- c. hypotension
- d. decreased Na⁺

...A...

662. This presentation is most indicative of:



- a. psoriatic arthritis
- b. chronic lung conditions
- c. myocardial infarction
- d. pericarditis

...B...

663. A 68 year old patient presents with low back pain, worse with activity and relieved with rest. X-rays reveal osteopenia, lab analysis shows hypercalcemia, hypergamma-globulinemia, and a normocytic & normochromic anemia. What is likely diagnosis?

- a. iron deficiency anemia
- b. hyperthyroid
- c. sarcoidosis
- d. multiple myeloma

...D...

664. A mid systolic murmur that is heard parasternally at the 2nd intercostal space on the left describes which condition:

- a. aortic regurgitation / insufficiency
- b. aortic stenosis
- c. pulmonic regurgitation / insufficiency
- d. pulmonic stenosis

...D...

665. What would be a physical finding of a patient with a history of systemic lupus erythematosus, tachycardia, tachypnea, fever, and knife like pain that is relieved by sitting and flexed position?

- a. pan-systolic murmur
- b. machinery murmur
- c. pericardial friction rub
- d. pleural friction rub

...D...

666. A young male presents with fever, abdominal cramps, (-) rheumatoid factor, (-) auto antibodies, arthropathies (pain?) in knee, ankle, and wrist.

- a. mesenteric adenitis
- b. ulcerative colitis
- c. ankylosing spondylitis
- d. viral gastroenteritis

...B...

667. Which of the following is most consistent with acute aching nocturnal back pain that is not relieved by rest?

- a. posterior facet syndrome
- b. DISH
- c. spinal metastasis
- d. primary colon carcinoma

...C...

668. Low back pain exacerbated by trunk flexion and lifting, tender upon pressure and stiffening upon rest would be of _____ origin?

- a. vertebrogenic
- b. muscular
- c. ligamentous
- d. vascular

...B...

669. Which female patient would most likely have endometriosis?

- a. 33 year old with no children
- b. 28 year old with 4 kids
- c. 16 year old who began menses at 12
- d. 64 year old with 6 kids

...A...

670. A 62 year old male presents with headaches, getting worse with projectile vomiting;

- a. migraine
- b. tension
- c. brain tumor
- d. cluster

...C...

671. A 50 year old male presents in your office with symptoms of a stiff neck, motor weakness, in a confused state and increased BP. What is most probable?

- a. classic migraine
- b. subarachnoid hemorrhage
- c. temporal arteritis
- d. brain tumor

...B...

672. A 68 year-old female is taking hypertensive medication, but only takes it when she feels bad She states she has a headache for the last 1/2 hour. She has also vomited once, and has a BP of 210/150?

- a. encephalopathy
- b. cluster headache
- c. cerebral embolism
- d. temporal arteritis

...NO ANS...

673. A patient presents with hepato-biliary disease. What wouldn't you order:

- a. urinalysis
- b. Intravenous pyleography

...B...

674. A 25 year old female with joint pain. What is the best diagnosis?

- a. Scleroderma
- b. Gout
- c. Hypertrophic osteoarthropathy
- d. Reiters syndrome

...C...

675. The most common cause of loss of central vision acuity and color changes?

- a. open angle glaucoma
- b. papilledema
- c. macular degeneration
- d. lenticular cataracts

...C...

676. What symptoms would most indicate an acute upper airway obstruction?

- a. abnormal heart sounds, cardiomegaly, basilar moist rales
- b. hepatomegaly, liver problems
- c. stridor, infra-clavicular retraction
- d. wheezes (asthma type problems)

...C...

677. On the following EKG, #3 represents:



- a. S wave
- b. P wave
- c. Q wave
- d. st complex

...D...

678. A female aged 28 presents with nausea, vomiting, fever, and a sunburn-like rash and hypotension:

- a. systemic lupus erythematosus
- b. purulent infection
- c. chlamydial infection
- d. toxic shock syndrome

...D...

679. A woman in her eighth month of pregnancy suddenly presents with hypertension, edema, proteinuria, and experiences visual disturbances. Which is the most probable diagnosis?

- a. tubal pregnancy
- b. pre-eclampsia
- c. nephrotic syndrome
- d. ectopic pregnancy

...B...

680. A person with reactive hypoglycemia has increased palpitations, pallor, and sweating. These findings may be due to?

- a. increase temperature
- b. increase serotonin
- c. hormonal changes
- d. alcohol

...C...

681. Of the following, which is most typically associated with pneumothorax?

- a. increased pectroloquy
- b. hyper-resonant percussive note
- c. increased vocal fremitus
- d. increased chest excursion

...B...

682. Exertional dyspnea in an otherwise asymptomatic young individual is most likely cause of?
 a. congested heart failure
 b. mitral stenosis
 c. endocarditis
 d. angina pectoris
 ...B...

683. What is the most common finding of left congested heart failure?
 a. orthopnea
 d. dyspnea
 c. whispered pectriology
 ...B...

684. Which of the following presents with right lower quadrant pain?
 a. cecum
 b. sigmoidal colon
 c. kidney
 ...A...

685. A female presents with dysuria, urgency, increased frequency. What is the most likely finding?
 a. suprapubic mass
 b. flank pain
 c. colicky pain
 d. shoulder pain
 ...B...

686. A retracted nipple with dimpling and a firm, hard mass is most likely to be:
 a. fibrocystic disease
 b. mastitis
 c. breast carcinoma
 ...C...

687. A 36-year-old woman presents with stiff neck, neck pain and projectile vomiting. She states she seldom has any warning before vomiting and no nausea. Who would you consult with on this case?
 a. Gastroenterologist
 b. Internist
 c. Neurologist
 i. Psychologist
 ...C...

688. Which of the following is exercise an absolute contraindication for someone that is also pregnant?
 a. diabetes mellitus
 b. cardiac problems
 c. respiratory problem (asthma)
 d. thyroid disease
 ...B...

689. A 34-year-old male disc herniation has been treated with ice & traction for 2 weeks with no results & progressive weakness. What should we do?
 a. manipulate for weeks
 b. refer out
 ...B...

690. What is the best way to remove adhesions in a nerve?
 a. cross friction massage
 b. manipulation
 ...A...

691. Your patient suffers from an abduction injury. The best way to rehabilitate the injury:
 a. run more distance
 b. cycle training
 c. ↑ resistance training
 d. swimming exercises
 ...D...

692. What exercise would you prescribe for a Boot fracture?
 a. swimming
 b. running
 ...A...

693. An 8 year old boy presents with a scoliosis on the right. He has no symptoms, and there is a congenital non-segmentation of T4-T8. What is the best option for treatment:
 a.
 b. refer to orthopedist
 c. x-ray again in 6 months
 d. adjust
 ...C...

694. The patient presents with pain in medial malleolus which radiates to medial calf and front of foot sometimes with muscle tightness on inversion and dorsiflexion. Which of the following is contraindicated
 a. weight bearing long distance walking
 b. foot orthotics
 c. under water ultrasound
 d. manipulation
 ...A...

695. A 42 year female presents with recurrent frontal headaches, onset is gradual and usually occurs upon waking. Duration is a couple of hours or throughout the day. Digital percussion reveals tenderness on the ipsilateral frontal & sub-orbital areas. To whom would you refer?
 a. vascular surgeon
 b. neurologist
 c. otorhinolaryngologist
 d. internist
 ...C...

696. A female patient presents with a history of bruxism and temporal headaches. What would your initial care include?
 a. adjust upper cervical & treat soft tissue
 b. ultrasound
 c. refer myofascial dentist specialist
 d. refer neurological & psychological
 ...C...

697. A 27 year old patient sprained his ankle skiing 3 weeks ago. He has a cast and is on crutches. One week ago, he started developing weakness in arm and forearm. He came to see you because he thought he "twisted a vertebrae". Ranges of motion in the upper extremity were normal, but had sensory loss on extensor surfaces of arm and weak wrist extensors. What should be done first in his case management?
 a. Cervical radiographs including obliques
 b. MRI
 c. adjust crutches
 ...C...

698. Recent compression fracture, what is the proper thing to do.
 a. Adjust with traction
 b. Adjust in flexion
 c. Refer to internist
 d. Refer to orthopedist
 ...A...

699. A patient presents in your office with osteitis pubis, what therapy would be most appropriate?
 a. swimming
 b. stretch the adductors
 c. bicycling
 d. refer for surgery
 ...B...

700. Trigger point therapy of which muscle is indicated for pain that radiates into the buttocks over the course of the sciatic nerve?
 a. quadriceps
 b. psoas
 c. piriformis
 d. quadratus lumborum
 ...C...

701. What exercise is best performed after an acute injury?
 a. variable-resistance isotonic
 b. fixed-resistance isotonic
 c. isometric
 d. isokinetic
 ...C...

702. What is a calcified superior sacroiliac ligament indicative of?
 a. Gouty arthritis
 b. D.I.S.H.
 c. Reiter's syndrome
 d. C.P.P.D.
 ...C...

703. Identify.



A. congenital non-segmentation
 B. hemi-vertebrae
 C. scoliosis
 D. butterfly
 e. Klippel-Feil syndrome
 ...A...

704. Where is location of bi-partitite patellar?
 a. superior lateral
 b. superior medial
 c. inferior lateral
 d. inferior medial
 ...A...

705. Which is the least likely cause of low back pain?
 a. osteoarthritis DJD
 b. gout
 c. osteolytic metastasis
 d. multiple myeloma
 ...B...

706. Osteolytic metastatic represents _____ percent of all metastatic bone lesions in the spine.
 a. 5
 b. 20
 c. 75
 d. 95
 ...C...

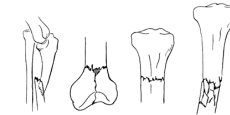
707. Thoracic fracture will cause what deformity?
 a. sprenghles
 b. gibbus
 ...B...

708. What do you visualize on a right anterior oblique of the cervicals;
 a. left IVF
 b. right IVF
 c. occipital condyles
 ...B...

709. Which of the following has nothing to do with scatter radiation?
 a. object
 b. tissue density
 c. film speed
 d. object thickness
 ...C...

710. The "Anode Heel Effect" is defined as:
 a. increased density at the anode side
 b. increased density to the cathode side
 ...B...

711. Monteggia's fracture is which number in the diagram below;



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

712. Fracture to the proximal radius is most indicative of:
 a. Torus fracture
 b. Jefferson's fracture
 c. Galeazzi's fracture
 d. Monteggia's fracture
 ...D...

713. A 32-year-old female presents with low back & sacroiliac pain of 3 week duration. What is the most likely diagnosis?



a. ankylosing spondylitis
 b. psoriatic arthritis
 c. osteitis condensans ilii
 d. sacro-iliac degenerative arthritis
 ...C...

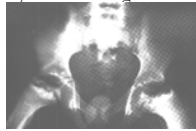
714. Which of the following radiographs best determines the integrity of the transverse ligament?
 a. A-P open mouth
 b. neutral cervical lateral
 c. flexion cervical
 d. extension cervical
 ...A...

715. View of A-P Pelvis



a. avulsion of ischial tuberosity
 b. metastatic carcinoma
 c. fracture
 d. osteosarcoma
 ...A...

716. Identify the following condition:



- a. avascular necrosis of femur
- b. septic infection
- c. arthritis of femoral joint
- d. DJD

...A...

717. The diagram below demonstrates which sign and condition?



- a. Pencil in cup deformity : psoriatic
- b. gull wing : erosive osteoarthritis
- c. Heberden's nodes : DJD
- d. rat bites, juxta-articular osteoporosis: RA

...C...

718. Bilateral degeneration of the uncovertebral joints results in _____ intersegmental malposition;

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

...A...

719. When a unco-vertebral motion glides abnormally, what is it due to?

- a. muscular
- b. ligamentous
- c. neurological
- d. vertebral origin

...B...

720. What is the best differential diagnosis between rheumatoid arthritis and degenerative joint disorder when only a single view of a joint is given?

- a. soft tissue swelling
- b. eburnation
- c. osteophytes
- d. narrow joint space
- e. subchondral cysts

...A...

721. An increased VIA usually presents with?

- a. tight gluteals
- b. tight hamstrings
- c. tight abdominals
- d. tight quadriceps

...D...

722. What is the name of the angle in Diagram A?



- a. Ferguson's angle
- b. lumbosacral disc angle
- c. Mikulicz's angle
- d. McNabb's angle

...B...

723. Which of the following malignancies most commonly occurs in 20-35 year olds?

- a. neuroblastoma
- b. Ewing's sarcoma
- c. osteosarcoma
- d. Hodgkin's lymphoma

...C...

724. What therapy is contraindicated for condition of fatigue, disturbed sleep patterns, trigger points?

- a. ice
- b. heat
- c. psycho therapy
- d. massage

...A...

725. Of the following in a patient presenting with fibromyalgia, what is a contraindication?

- a. home cryotherapy
- b. psychological consult
- c. massage
- d. stress relaxing techniques

...A...

726. Rigid foot orthotics versus flexible & semi-flexible is for:

- a. athletes in different events
- b. flexible pediatric foot
- c. bunion
- d. elderly with point of pressure

...A...

727. What is another name for progressive resistive exercises?

- a. Jacobson's
- b. Bobath's
- c. DeLorme's
- d. Frenkel's

...C...

728. What vitamin or supplement would help with Carpal Tunnel Syndrome?

- a. Pyroxidine
- b. Thiamine
- c. cyanocobalamin
- d. riboflavin

...A...

729. Which of the following is indicated for a patient presenting with a yeast infection?

- a. B-complex
- b. Acidophilus
- c. Mg
- d. Ca++

...B...

730. Patient w/ senile osteoporosis, nutritional treatment should NOT be:

- a. ↑ Ca+ and ↑ Protein
- b. ↑ Ca+ and ↓ Protein
- c. ↓ Na+
- d. ↑ physical activity

...A...

731. Patient has a spondylolisthesis of 8mm of L5 vertebra. What is the best care to give? Patient had no pain, signs or symptoms of any kind.

- a. Posterior adjustment with a drop
- b. Anterior adjustment with a drop
- c. refer for surgery

...NO ANS...

732. To correct a subluxation of the trapezium, segmental contact would be:

- a. proximal to the base of the 1st metacarpal
- b. proximal to the base of the 2nd metacarpal
- c. proximal to the base of the 5th metacarpal
- d. proximal to the lunata
- e. proximal to the base of the 4th metacarpal

...A...

733. Side posture move for inferior sacral base fixation with ischial contact the line of correction is

- a. P-A, I-S
- b. P-A, S-I
- c. A-P, I-S
- d. A-P, S-I

...B...

734. What is the segmental contact point for a supine glenohumeral misalignment?

- a. axilla
- b. inferior spine of scapular
- c. acromioclavicular joint
- d. posterior aspect of humeral head

...D (if post misaligned)...

735. Presence of squamous epithelial cells indicates:

- a. glomerulonephritis
- b. urinary tract infection
- c. contamination
- d. hematuria

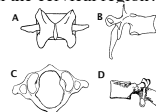
...C...

736. What test measures the rate of absorption for B12?

- a. Coomb's
- b. Schilling
- c. Dick
- d. VDRL

...B...

737. Which of the following is a presentation of a transverse section in the cervical region?



- a. A
- b. B
- c. C
- d. D

...C...

738. Which of the following vertebral levels is medial to the spine of the scapula?

- a. T1
- b. T3
- c. T5
- d. T7

...B...

739. Shortened and hypertonic quadriceps will result in the movement of the ilium (P.S.I.S.) in which direction.

- a. anterior superior
- b. posterior inferior
- c. anterior inferior
- d. posterior superior

...A...

740. Lumbar range of motion is most restricted in?

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

...C...

741. Best indicator for successful flexion distraction on low back pain patient on initial trial.

- a. diffuse thigh pain goes to buttock
- b. diffuse thigh pain centralizes in low back
- c. centralized low back pain diffuses over low back
- d. centralized low back pain diffuses to thigh

...B...

742. Hypermobility and discopathy occur most at:

- a. C0-C1
- b. C2-C4
- c. C4-C6
- d. C7-T1

...C...

743. In coupling motion with left lateral flexion, the spinous rotate to _____ in the cervical region and in the lumbar region, right lateral flexion causes the spinous to rotate _____.

- a. left, right
- b. right, right
- c. left, left
- d. right, left

...B...

744. What muscle is not used in shoulder abduction?

- a. teres major
- b. latissimus dorsi
- c. pectoralis major
- d. levator scapulae

...D...

745. In transition from T10-L1 facets go from Coronal – Sagittal

746. Cocciodymycosis – SW United States

747. What do you ask the patient to refrain from in Goiter? Red meat

1. 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...

2. 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...

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

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

...A...

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

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

...C...

5. Mobilization is better than manipulation for which joint?

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

...B...

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

- lateral to medial (side posture pull si ap)
- medial to lateral
- posterior to anterior
- with torque

...A...

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

- flexion malposition
- anterolisthesis
- interspinous gapping
- aberrant motion

...D...

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

- arms across the chest
- one arm across the chest
- arms down the side

...A...

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

- hypothenar : T3
- hypothenar : T5
- clenched fist : T3
- clenched fist : T5

...D...

10. 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?

- ilio-tibial band syndrome
- anterior cruciate ligament sprain
- proximal fibular fracture
- lateral collateral ligament sprain

...B...

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

- Thompson's
- Homan's
- Lachman's
- Ober's

...C...

12. What other injury may be found?

- fibula head fracture
- medial meniscus tear
- patella dislocation
- quadriceps rupture

...B...

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

- plain film
- MRI
- CT
- arthrography

...A...

14. 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?

- acute epicondylitis
- tear of the medial ligament
- avulsion fracture
- fracture (?)

(strain/sprain medial tendon)

...A...

15. What test would you perform?

- reversed Cozen's
- Mill's
- Tinel's
- Yergason's

...A...

16. What is the involved tissue?

- osseous
- muscular
- ligamentous
- cartilaginous

...B...

17. 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.

- multiple sclerosis
- disc lesion

...B...

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

- decreased biceps reflex
- decreased triceps reflex
- (+) Lhermitte's

...A...

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

- serratus anterior, long thoracic nerve

20. What nerve is involved?



- suprascapular
- subscapular
- axillary
- long thoracic

...D...

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

- Adson's
- Wright's
- Eden's
- Spurling's

...B...

22. (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?

- cervical spine sprain/strain
- C4 anterolisthesis
- cervical disc
- thoracic outlet syndrome

...C...

23. What nerve root is involved?

- C5
- C6
- C7
- C8

...D...

24. 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?

- Baker's cyst
- iliotibial band syndrome
- lateral collateral ligament
- lateral meniscus

...A...

25. 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?

- shoulder impingement syndrome
- adhesive capsulitis
- AC joint separation
- deltoid bursitis

...C...

26. 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?

- ruptured triceps tendon
- olecranon bursitis
- olecranon bone spur
- dislocation of the radial head

...B...

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

- lunate
- hamate
- scaphoid
- triquetrum

...C...

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



- Adam's ; anatomical scoliosis
- Adam's : functional scoliosis

...A...

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



- 0-3
- 3-5
- 5-10
- 10+

...D...

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

- nerve stretch
- I.V.F. encroachment
- contusion
- compression

...A...

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

- patient prone
- supine knees flexed
- flexion
- extension

...C...

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



- wrist flexors
- finger flexors
- wrist extensors
- finger extensors

...B...

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

- active exercise
- passive exercise

...B...

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

- obstructive
- cirrhosis
- hemolytic

...D...

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

- glomerulus
- tubule
- bladder

...A...

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

- stop taking Vitamin C

37. What blood change would most likely be seen in a patient with renal calculi?
 a. hypocalcemia
 b. hypercalcemia
 c. hypokalemia
 d. hyperkalemia
 ...B...

38. Which lymph nodes cannot be palpated in the axillary fossa?
 a. subscapular
 b. pectoral
 c. lateral
 d. epitrochlear
 ...D...

39. A 15 year old male presents with a history of surgery for Wilms' tumor. The staples are due to the surgery. What complication is shown in the x-ray? (they showed us an ap x-ray of the lower thoracics and lumbars. 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...

40. 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...

41. 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...

42. What lab test will be most significant? (there was no ASO as choice)
 a. increased ESR
 b. rheumatoid factor
 c.
 ...A...

43. 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...

44. 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...

45. Which of the following hernias exits below the inguinal ligament and never enters the scrotum?
 a. inguinal
 b. indirect
 c. femoral
 d. direct
 ...C...

46. 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...

47. Bilateral exophthalmos is seen in



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

48. 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...

49. 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
 d.
 ...B...

50. 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...

51. 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...

52. 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...

53. 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...

54. What lab test will be most diagnostic?

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

55. Which exam procedure should you perform next?
 a. MRI
 b. CT
 c. flexion/extension cervical spine x-ray
 ...C...

56. What physiotherapy modality would be most appropriate (provide the most relief)?
 a. finger manipulation
 b. underwater US
 c. moist heat
 d. strengthen joints
 ...C...

57. A headache that refers pain to the cheek bones is most suggestive of?
 a. tension
 b. cluster
 c. migraine
 d. sinus
 ...D...

58. 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...

59. A patient presents with acute dry cough and extreme shortness of breath would most likely suggest:
 a. pulmonary TB
 b. pulmonary embolism
 c. bronchiectasis
 d. pulmonary tumor
 ...B...

60. 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...

61. 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...

62. 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...

63. 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...

64. 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...

65. 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...

66. 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...

67. Which of these is not a complication of systemic lupus erythematosus?
 a. osteonecrosis
 b. compression fracture
 c. osteopetrosis
 ...C...

68. They show an ap x-ray of the hand with erosion of the distal phalanges. (x-ray, A/P hand, similar to the Yochum page 896) Which of the following conditions is suggested by the radiographs below? The condition of the x-ray, with "fluffy" appearance of the distal tuft is:
 a. rheumatoid arthritis
 b. psoriatic arthritis
 c. erosive arthritis
 d. degenerative arthritis
 a. gout
 (scleroderma was not there and the DIPs were not touched)
 ...B...

69. 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...

70. What is the trade-mark sign for Paget's disease on x-ray?
 a. ivory white vertebra

71. Which one of these is NOT a common cause of a single white vertebra
- Paget's
 - hyperparathyroidism
 - osteoblastic metastatic carcinoma
 - Hodgkins lymphoma
- ...B...

72. A 20 year old man presents with a non expansile single ivory white vertebra with anterior vertebral body scalloping
- Paget's
 - Hodgkins' lymphoma
 - osteoblastic metastatic carcinoma
- ...B...

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



- compression fracture
 - knife clasp syndrome
 - DJD
 - spondylolisthesis
 - disc herniation
- ...A...

74. xray of a hip with advanced multiple myeloma

75. A person dives into a swimming pool and hits his head on the bottom this can cause a
- Jefferson fracture
 - hangman's fracture
- ...A...

76. Which fracture does this represent?



- Jefferson's
 - clay shoveler's
 - hangman's
 - Barton's
- ...C...

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

78. (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 odontoidium
 - posterior arch of C1 and odontoid fracture
- ...D...

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

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

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



- scaphoid fracture
 - lunate
 - triquetrum
- ...A...

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

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

84. What is the best diagnosis?
- enchondroma
 - bone infarct
 - osteosarcoma
 - osteochondroma
- ...B...

85. Which of the following is contraindicated in the conventional management of Pellegrini-Stieda?
- pulsed ultrasound
 - cryotherapy
 - friction massage
 - interferential
 - quadriceps exercise
 - aggressive massage
- ...F...

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

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

88. What modality is used for the visualization of fungus of the scalp?
- ultrasound
 - SW diathermy
 - ultraviolet

- d. interferential
- ...C...

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

90. Vitamin B6 is also known as:
- pyridoxine

91. Which supplement would be used for osteoporosis?
- B6
 - B12
- ...?...

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

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

94. (drawing of a kid sitting at the edge of table, the right knee around the tibia tuberosity is swollen) What question should you ask to 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...

95. 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...

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

97. 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...

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

99. 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...
