**Reading Assignments**

<table>
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<th>Quiz 1 material</th>
<th>Topic</th>
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<tr>
<td>NMS 2 q 1</td>
<td>Cranial nerve evaluation V &amp; VII</td>
<td>Class notes, DeJong's</td>
<td>Dr. B 32,43-47 Pgs. 192-226</td>
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</table>

Identify the process of the examinations and terms listed below and common indications from your class notes and this is a review from NMS 1.

- Cranial nerve V spares the cutaneous area over the angle of the jaw.
- The cutaneous area over the angle of the jaw is innervated by greater auricular nerve dermatome C2, C3

Motor- muscles of mastication temporalis, masseter and medial pterygoid all close the jaw.

- Impairment is often accompanied by atrophy of the temporalis and masseter muscles resulting in a sunken or following out appearance of the temples and zygomatic arches.
- Referred pain in the trigeminal distributions also frequently occur, investigation of referred facial pain may uncover problems of the TMJ, dental problems and central problems must always be considered.

- Trigeminal neuralgia aka Tic Douloureux is a common disorder that has unusually sharp, painful facial sensation in clear distribution of V1, V2 and V3.

- Sensory examination to evaluate V1, V2 and V3 distribution to the sensation of sharp pinprick and light touch sensation.

- Motor exam involves observation for normal temporalis and masseter muscle volume, observation of jaw deviation on forced opening, opposition of jaw closing and lateral jaw movements.

- Corneal blank reflex- V1 senses the Cotton wisp and CN VII causes the eye to blink.

- Cranial nerve VII – supplies and motor innervation to all the muscles of facial expression as well as taste sensitivity to the anterior two thirds of the tongue.

- Bilateral innervation of the forehead results in the patient being able to wrinkle the forehead with an UMNL present. i.e. CVA

- Bell’s palsy- LMNL affecting facial paralysis and the patient will not be able to wrinkle the forehead on the ipsilateral side.

- CN VII also functions to dampen the stapedius.

- CN VII supplies taste sensation to the anterior 2/3 of the tongue involving sweet, sour and salty tastes.

- Examination: have the patient look up to wrinkle the forehead.

- Observe different facial expressions; smile, frown, puff cheeks out.(don’t let the air out)

- Observe for non symmetrical nasolabial folds.

- Observe for dysarthria, dysphasia or drooling.

- Complete loss of taste is rare, if complete loss of taste occurs consider olfactory function, viral infection, aging, toxic/metabolic disease.
### Reading Assignments

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<td>Sensory exam</td>
<td>Class notes</td>
<td>Dr. B p.56 - 60,192-194</td>
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<td></td>
<td>Whole Body</td>
<td>DeJong’s</td>
<td>Pgs. 429 –443, 455-465</td>
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Identify the process of the examinations and terms listed below and common indications from your NMS 1 class notes.

- Anesthesia page 60 of class notes review from NMS 1
- Paresthesia page 58 of class notes review from NMS 1
- Hypoesthesia page 60 of class notes review from NMS 1
- Hyperesthesia page 60 of class notes review from NMS 1
- Alganesthesia page 60 of class notes review from NMS 1
- Analgesia page 60 of class notes review from NMS 1
- Hyalgesia page 60 of class notes review from NMS 1

- Dermatomes defined: (we use Keegan's dermatome chart) page 27 class notes
  - C5-lateral upper arm
  - C6-lateral forearm from the elbow proximal to distal, thumb and index finger
  - C7-middle finger
  - C8-median forearm from the elbow proximal to distal and 4th and 5th finger
  - T1-medial distal ½ of the upper arm
  - T2-medial proximal ½ of the upper arm
  - T4-nipple line
  - T7-xiphoid region
  - T10-umbilical
  - T12-groin
  - L1-lateral anterior proximal thigh to groin
  - L2-lateral proximal thigh - anterior thigh proximal to medial thigh
  - L3-lateral proximal thigh - anterior thigh to medial knee
  - L4-lateral proximal thigh - anterior thigh to top of knee - anterior tibial – medial foot
  - L5-lateral proximal thigh – lateral calf-top of foot-lateral heel
  - S1-lateral proximal thigh – posterior buttock-posterior calf-lateral foot
  - S2-posterior buttock-posterior medial thigh-posterior medial calf-medial heel
  - S3–
  - S4–
  - S5–

  Used to evaluate sacral nerves – Cauda Equina syndrome

- Anterior spinothalamic tract – light touch exam

- Posterior Columns – deep pain and proprioception
  - Define Thigmesthesia
  - Define Topesthesia

Identify the importance of the nociceptive system. Understand the mechanical, thermal and chemical receptors.

- Understand nerve root entrapment syndrome page 186-188 class notes

Identify and define nerve root lesions involving nerve root compression and nerve root irritation.

Review the process for the evaluation concerning sensation
<table>
<thead>
<tr>
<th>Identify the important processes to remember while testing sensations</th>
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<tr>
<td>Review peripheral nerve entrapment syndromes page 186-188 class notes from NMS 1</td>
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<tr>
<td>Review testing sensation involving peripheral nerves page 201-109 class notes from NMS 1</td>
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<tr>
<td>Review loss of sensation involving peripheral nerves page 201-209 class notes review from NMS 1</td>
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<tr>
<td>Quiz 3 material</td>
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<td>NMS 2</td>
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Identify the process of the examinations and terms listed below and common indications from your class notes.

Review the process to perform a muscle strength examination page 61-64 class notes review from NMS 1.

Review the importance of general inspection and palpation concerning the muscle strength examination.

Review muscle strength testing using mechanical advantage.

Define kinetic power review from NMS 1.

Define static power review from NMS 1.

Identify how muscle fasciculations relate to the muscle strength examination review from NMS 1.

Review the muscle strength grading scale page 64 and 188 of the class notes.

- Supraspinatus C (4) 5 6 Supraspacial N.
- Deltoid C 5 6 Axillary N.
- Biceps C 5 6 Musculocutaneous N.
- Brachioradialis C 5 6 Radial N.
- Wrist extension C 6 7 8 Radial N.
- Triceps C 6 7 8 Radial N.
- Wrist flexion C 6 7 8 T1 Median / Ulnar N.
- Finger extension C 7 8 Radial N.
- Finger flexion C 8 T1 Median / Ulnar N.
- Finger abduction C 8 T1 Ulnar N.
- Finger adduction C 8 T1 Ulnar N.
- Hip flexion (L1-L4) Femoral N.
- Hip extension (L5-S2) Inferior gluteal N.
- Hip abduction (L4-S1) Superior gluteal N.
- Ankle he will is a Hip adduction (L2-L4) Obturator N.
- Knee flexion (L5-S2) Tibial N.
- Knee extension (L2-L4) Femoral N.
- Plantar flexion (S1-S2) Tibial N.
- Dorsiflexion (L4-L5) Deep peroneal N.
- Ankle inversion (L5-S1) Tibial N.
- Ankle eversion (L4-S1) Superficial Peroneal
- Toe extension (L4-S1) Deep peroneal N.
- Toe flexion (L5-S2) Tibial N.

Deep Tendon Reflexes

- Biceps (C5 6) Musculocutaneous N.
- Brachioradialis (C5 6) Radial N.
- Triceps (C7 8) Radial N.
- Finger Flexion (C7 8 T1) Median / Ulnar N.
- Patellar (L2-L4) Femoral N.
- Achilles (L5-S2) Tibial N.
- Adductor (L2-L4) Obturator N.
- Int. Hamstring (L4 5 S1 2) Tibial N.
- Ext. Hamstring (L5 S1 2 3) Common Peroneal N.

Review the muscle tone assessment: normal, UMN L, LMNL
### Reading Assignments

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<td>NMS 2 q4</td>
<td>Thoracic range of motion and orthopedic exams</td>
<td>Class notes Evans</td>
<td>Dr. V Pgs. 17 - 24 Pgs. 467 – 534</td>
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1. **Thoracic ROM**  
   Flex: 50°, Rot: 30° (AMA)

- Adam’s Position
- Amoss Sign
- Beevor’s Sign
- Chest Expansion Test
- Forestier Bowstring
- Rib Motion Test
- Schepelmann’s Sign

Identify from the orthopedic tests listed above, the following:

- Which test identifies a patient for scoliosis?
- Which tests identify intervertebral disc disorder for the thoracic region?
- Drift of the umbilicus cephalic indicates?
- Drift of the umbilicus caudal indicates?
- Which test according to Evans is associated with a myelopathy of T10 level?
- This test maybe found positive if the exhalation and inhalation for the patient is less than 1.5 – 3 inches.
- Which two tests according to Evan are in the absence of trauma is associated with ankylosing spondylitis.
- Which test according to Evan’s measures the chest diameter at the level of the fourth intercostal space?
- Which test according to Evan’s is associated with tightening or contracture of the thoracic musculature on the same side as lateral flexion?
- Which test according to Evan’s is associated with strain and thoracic IVD involvement?
- Which test according to Evan’s is associated with assessment for Hypermobile or Hypomobile costal structures?
- Which test according to Evan’s is associated with decreased rib motion during exhalation? If this is present it indicates an_________rib.
- Which test according to Evan’s is associated with decreased rib motion during inhalation? If this is present it indicates an_________rib.
- Which test according to Evan’s is associated with assessment for costal and intercostal tissue integrity?
- Which test according to Evan’s is associated with intercostal neuritis?
- Which test according to Evan’s is associated with intercostal myofascitis?
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<td>NMS 2 Q5</td>
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<tr>
<td>Adams Position</td>
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<td>Straight Leg Raiser</td>
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<tr>
<td>Crossed Straight Leg Test</td>
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<tr>
<td>Ely’s Test</td>
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<tr>
<td>Kemp’s Test</td>
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<tr>
<td>Lindner’s Sign</td>
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<tr>
<td>Nachla’s Test</td>
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<tr>
<td>Bil. Leg Lowering Test</td>
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<tr>
<td>Which test identifies a patient for scoliosis?</td>
</tr>
<tr>
<td>Which tests identify intervertebral disc disorder for the thoracic and or lumbar region?</td>
</tr>
<tr>
<td>What is the classic leaning posture for a patient with radiating leg pain and has a posterior lateral disc herniation/posterior medial disc herniation.</td>
</tr>
<tr>
<td>Which of the orthopedic tests are classically used for a diagnosis of facet irritation as part of the patient’s low back pain?</td>
</tr>
<tr>
<td>Identify which orthopedic tests that are considered positive for nerve traction signs.</td>
</tr>
<tr>
<td>Identify which orthopedic tests that had anterior radiating thigh pain as part of their classic presentation.</td>
</tr>
<tr>
<td>Which exam according to Evans text can be performed in either a seated or supine position?</td>
</tr>
<tr>
<td>Which of the orthopedic tests can increase the dural traction combined with passive cervical flexion? Identify the test.</td>
</tr>
<tr>
<td>Well leg raiser test “Bragard’s” is called?</td>
</tr>
<tr>
<td>What two tests are performed exactly the same but have different clinical indications.</td>
</tr>
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<td>Seated SLR’s is test?</td>
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<td>NMS 2 q 6</td>
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Anterior Innominate Test  
Belt Test  
Erichsen’s Test  
Gaenslen’s Test  
Goldthwait’s Sign  
Hibb’s Test  
Iliac Compression Test  
Lewin Gaenslen Test  
Lewin Standing Test  
Yeoman’s Test

Identify from the orthopedic tests listed above:

Which orthopedic tests are performed standing, sitting, side lying and prone?

Which orthopedic test addresses low back pain and differentiates lumbar issues as a source versus pelvic as a source for low back pain?

Which orthopedic test evaluates the patient for an anterior inferior sacrum as per Dr. Evans orthopedic exam text?

Historically tuberculosis maybe a cause to the patient’s pelvic pain and at this is noted with _______________ orthopedic test.

Which orthopedic test evaluates the patient for SI subluxation, lesion in the prone position?

Which orthopedic test evaluates the patient for SI subluxation, lesion in the supine position and this test stresses the Y ligament?

Which orthopedic test evaluates the patient for SI subluxation, lesion and the unaffected thigh is flexed toward the abdomen.

Which orthopedic test evaluates the patient for SI subluxation, lesion and or lumbosacral subluxation?

Which orthopedic test evaluates the patient for SI lesion in the absence of hip pathology?

Which orthopedic test evaluates the patient for SI lesion with internal rotation of the femoral head?

Which orthopedic test has a clinical pearl of “systemic” findings that may suggest the existence of this type of tuberculosis?

Which orthopedic test evaluates the patient for SI lesion, subluxation, sprain, fracture in the side lying position?

Which orthopedic test evaluates the patient for SI subluxation in the side lying position with extension of the affected leg and the unaffected thigh in fixed flexion?

Which orthopedic test evaluates the patient for unilateral or bilateral hamstring spasm, as seen in sciatic radiculopathy and it is performed in the standing position?

Which orthopedic test evaluates the patient for SI subluxation, lesion in the prone position with hyperextension of the affected thigh off of the table.
## Reading Assignments

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<td>Hip joint range of motion and orthopedic exams</td>
<td>Evans</td>
<td>Pgs. 765 - 842 Dr. V Pgs. 37-42</td>
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2. Hip ROM
   - Flex- 120°, Ext- 20°, Abd- 40°-45°, Add-20°-30°, Lat Rot- 45°, Med Rot-40° (AMA)
   - Flex- 120°, Ext- 30°, Abd- 45°, Add-30°, Lat Rot- 45°, Med Rot-40° (Evans)

Actual Leg Length Test
Apparent Leg Length Test
Allis’ Sign/A.K.A Saleazzi’s Sign
Anvil Test
Gauvain’s Sign
Hip Telescoping Test
Patrick’s Test (AKA: Patrick-Fabere)
Ober’s Test
Thomas Test
Trendelenburg’s Test
Ortolani’s Test

Identify from the orthopedic tests listed above
Which orthopedic test evaluates the patient for actual leg-length shortening caused by an abnormality above or below the trochanter level?
Which orthopedic test evaluates the patient for apparent leg-length shortening caused by a pelvic obliquity?
Which orthopedic test evaluates the patient for assessment for femoral and/or Tibial structural deficiency?
Which orthopedic test evaluates the patient for assessment for femoral, tibial, fibular and or calcaneal fracture,
Which side lying orthopedic test evaluates the patient for assessment for TB arthritis of the hip or Adult onset osteonecrosis of the femoral head?
Which orthopedic test evaluates the patient for untreated or undiagnosed congenital hip dislocation?
Which orthopedic test evaluates the patient for iliobial band contracture?
Which orthopedic test evaluates the patient for intracapsular coxa pathology seen in Flexion, Abduction, External rotation and extension?
Which orthopedic test evaluates the patient for flexion contracture involving the iliopsoas?
Which standing orthopedic test is seen as a positive with patients that have gluteal paralysis, gluteal inhibition, and gluteal insufficiency or for congenital dislocation of the hip?
Which orthopedic test evaluates the patient for slipped capital epiphysis?
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<td>NMS 2 q 8</td>
<td>Knee range of motion and orthopedic exams</td>
<td>Evans Class notes</td>
<td>Pgs. 843 - 928 Dr. V Pgs. 43 - 49</td>
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**Knee ROM**
- Flex: 130° -150°, Ext: 0-15° (AMA)
- Flex: 130° -150°, Ext: 0-15° (Evans)

- Abduction (Valgus) Stress Test
- Adduction (Varus) Stress Test
- Apley's Compression Test
- Patella Ballottement Test
- Bounce Home Test
- Clarke's Sign (Patellar Scrape test)
- McMurray Sign
- Lateral Pivot Shift Maneuver
- Lachman Test
- Drawer Test
- Q-Angle Test

Identify from the orthopedic tests listed above

- Which orthopedic test evaluates the patient for collateral ligament injuries?
- Which orthopedic test evaluates the patient for collateral and meniscus tears?
- Which orthopedic test evaluates the patient for knee joint effusion?
- Which orthopedic test evaluates the patient for loss of passive extension that may indicate a torn meniscus?
- Which orthopedic test evaluates the patient for patellar tracking disorder and or chondromalacia patellae?
- Which orthopedic test evaluates the patient for assessment of anterior and posterior cruciate ligament injury?
- Which orthopedic test evaluates the knee with valgus stress and extension of the knee and Varus stress and extension of the knee?
- Which orthopedic test evaluates the knee in flexion 5°, a valgus stress is applied to the knee while maintaining medial rotation torque on the tibia and ankle and the leg is then flexed 30 - 40°, the tibia reduces or jogs backward and gives the patient a “feeling of giving way”?
- Which orthopedic test evaluates the patient for a decreased infrapatellar tendon slope as well as an injury to the ACL?
- Which orthopedic test evaluates the patient for assessment of patellofemoral dysfunction, patella alta, subluxating patella, increased femoral anteversion, genu valgum or increased lateral tibial torsion?
- A decreased q-angle suggests?
- An increased q-angle suggests?
## Reading Assignments

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<td>Lower extremity vascular and ankle range of motion and orthopedic exams and ankle and foot range of motion and orthopedic exams</td>
<td>Evans text Class notes</td>
<td>Pgs. 929 - 1003 Dr. V Pgs. 50 - 59</td>
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**Ankle ROM**
- Pla Flex-40°, Dor Flex- 20°, Inv- 30°, Eve- 20° (AMA)

- Anterior Drawer Sign
- Calf Circumference Test
- Claudication Test
- Homans’ Sign
- Moses’ Test
- Thompson’s Test
- Duchenne’s Sign
- Helbing’s Sign
- Morton’s Test
- Strunsky’s Sign
- Tinel's Foot Sign
- Burns Bench Test
- MannKopf’s Test
- Libman’s Test

**Identify from the orthopedic tests listed above**

- Which orthopedic test evaluates the patient for assessment of Anterior Talofibular ligament?
- Which orthopedic test evaluates the patient for assessment of muscular atrophy or hypertrophy of the lower extremity?
- Which orthopedic test evaluates the patient for assessment of chronic arterial occlusive disease?
- Which orthopedic test evaluates the patient for assessment of thrombophlebitis of the lower extremities?
- Which orthopedic test evaluates the patient for assessment of arteriosclerosis obliterans of the lower extremities?
- Which orthopedic test evaluates the patient for assessment of rupture of the Achilles tendon?
- Which orthopedic test evaluates the patient for assessment of lesions of the superficial peroneal nerve?
- Which orthopedic test evaluates the patient for assessment of pes planus?
- Which orthopedic test evaluates the patient for assessment of metatarsalgia or neuroma?
- Which orthopedic test evaluates the patient’s foot into flexion for assessment of anterior foot pain and findings that suggest metatarsalgia?
- Which orthopedic test evaluates the patient for assessment of tarsal...
<table>
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<th>Question</th>
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<tr>
<td>Which orthopedic test percusses the patient’s medial plantar nerve?</td>
<td>(posterior tibial nerve)</td>
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<tr>
<td>Which orthopedic test evaluates the patient for assessment of lumbar</td>
<td>spine malingering?</td>
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<tr>
<td>Which orthopedic test evaluates the patient for assessment of simulated</td>
<td>pain?</td>
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<tr>
<td>pain?</td>
<td>Which orthopedic test evaluates the patient for assessment of pain</td>
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<td>threshold?</td>
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Reading Assignments
Study guide for the weekly quizzes NMS 2

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<td>Perform a complete history, physical exam, chiropractic exam and write a narrative report of your patient.</td>
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See the webpage for the “suggested lay out” for the narrative.

Quiz 9 & 10 Instructions

This assignment will count for your last two quizzes, a total of 20 points

Each student is required to hand in his/her own unique assignment.

This assignment is due during class hour according to the class calendar.

It will not be accepted late.

Your assignment is:

Take or makeup a complete history on a patient that has a health problem other than just a subluxation.
Perform or construct a complete physical exam, utilizing all of the exams that you have learned to this point in Physical Diagnosis, NMS 1, and NMS 2 (if taken) that would represent your patient.

Then type the information in a narrative form which will be approximately 3 to 5 pages long. It may be longer.

Place a cover page on this narrative. The cover page should include:

Your Name
Matric #
Class, NMS 1 or 2
Class Time

A narrative includes the following information in paragraph form:
Each topic should have its own paragraph

**History:**

- Chief Complaint:
- Present Illness:
- Past health history:
- Occupational history:
- Social history:
- Habits:
- Family history:
- Marital history:

**Review of systems**

- Skin, hair, nails
- Head, eyes, ears, nose, throat
- Lungs, thorax, cardiovascular
- Abdomen
- Nervous system
- GI/GU
- Genital
- Neuromusculoskeletal

**Physical examination:** As learned in Physical Diagnosis

- Head and neck
- Respiratory system
- Cardiovascular system
• Abdominal evaluation

Vital signs

Cranial Nerve examination Each test should be individually commented on.

Cerebellar and Proprioception tests Each test should be individually commented on.

Sensory examination Each test should be individually commented on.

Muscle Strength examination Each test should be individually commented on.

Deep Tendon Reflexes Each test should be individually commented on.

Superficial Reflexes Each test should be individually commented on.

Pathological Reflexes Each test should be individually commented on.

Visceral Reflexes Each test should be individually commented on.

Range of Motion Each test should be individually commented on.

Orthopedic Test Each test should be individually commented on.

Your study guide has all of the tests that could/should/may be covered on your narrative. Describe the findings completely for each positive test. You may want to comment on a negative test to prove a point with a positive test.

Chiropractic examination findings:

Instrumentation findings, static palpation and motion palpation findings. (These are the basics and you are not limited to only these.)

Diagnosis

Radiology report

Treatment plan, short and long term goals should be included.

• Give the medical treatment plan. They may be somewhat the same or

• Give the chiropractic plan. they may not.

Prognosis