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Casey Unverzagt

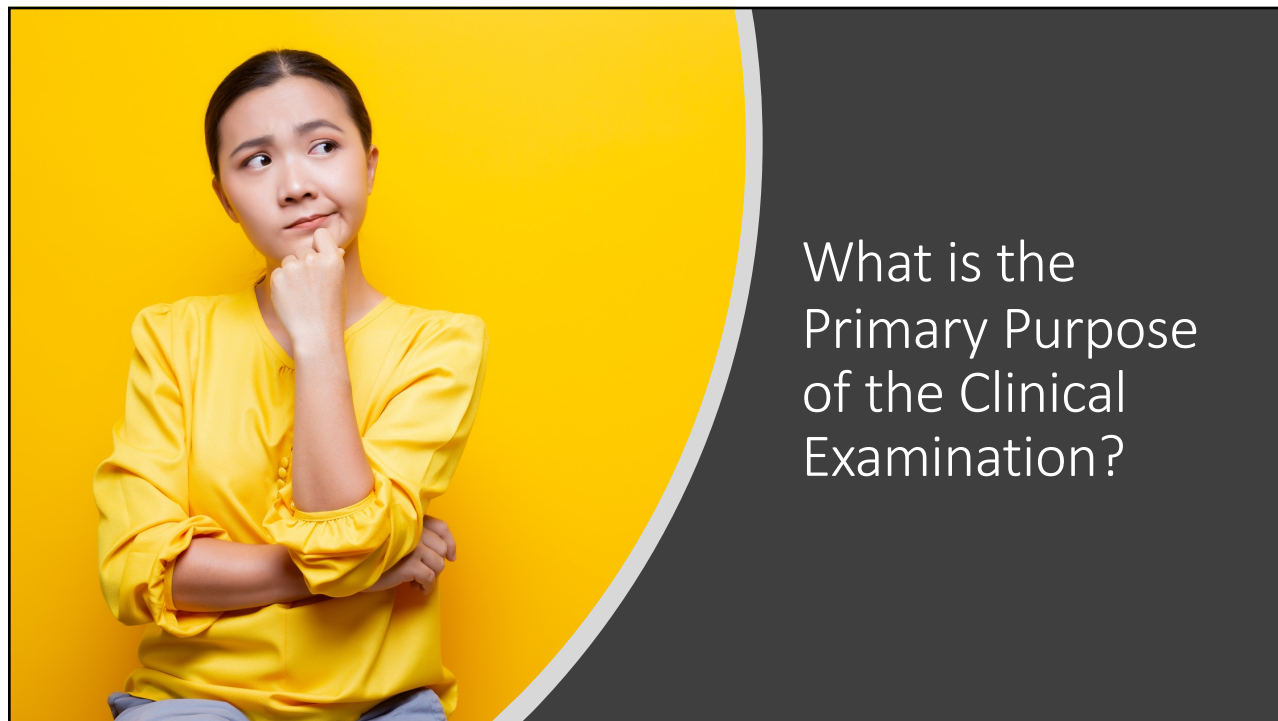
Board Certified in Orthopaedics & Sports (OCS/SCS)

Fellow American Academy of Orthopaedic Manual Physical Therapists (FAAOMPT)

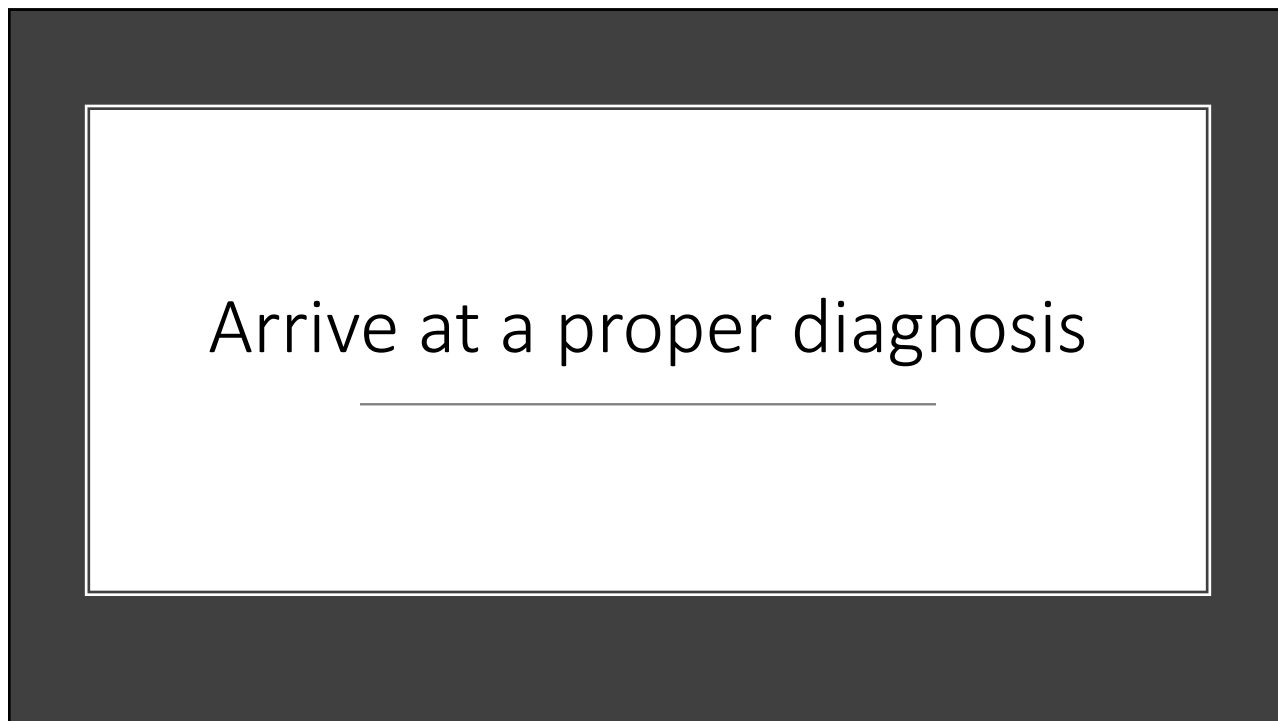
Certified Strength & Conditioning Specialist (CSCS)



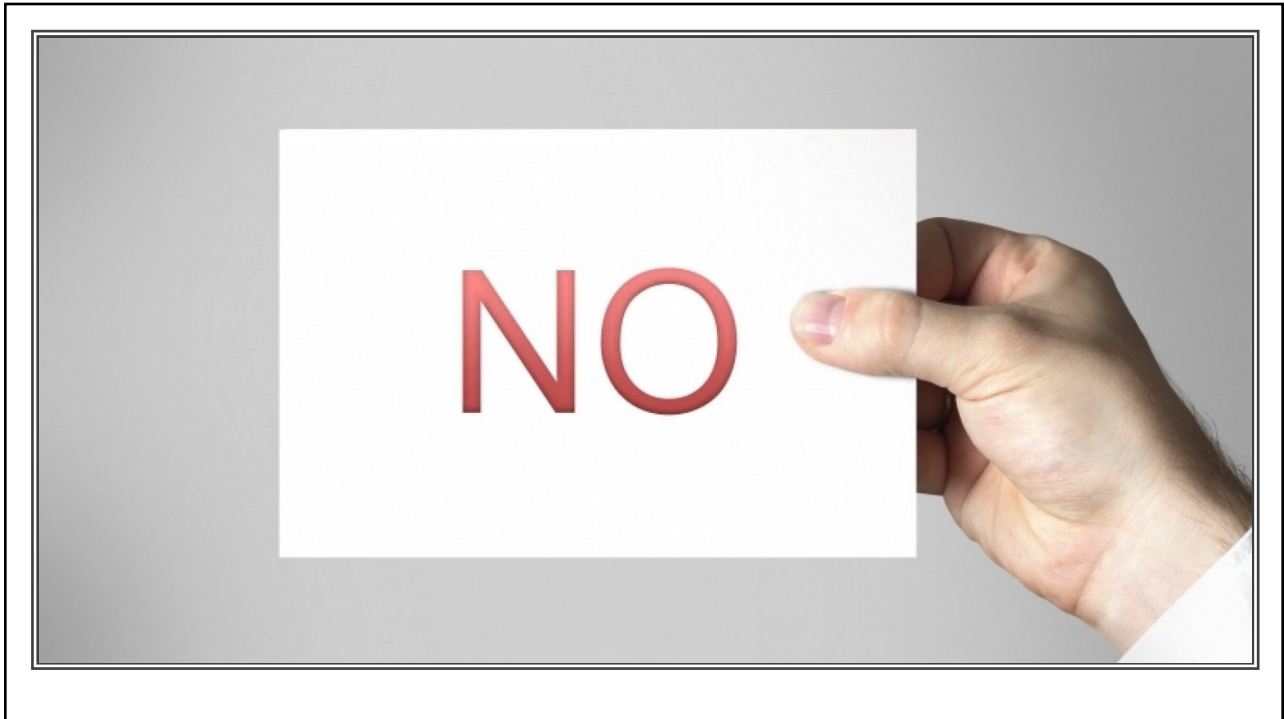
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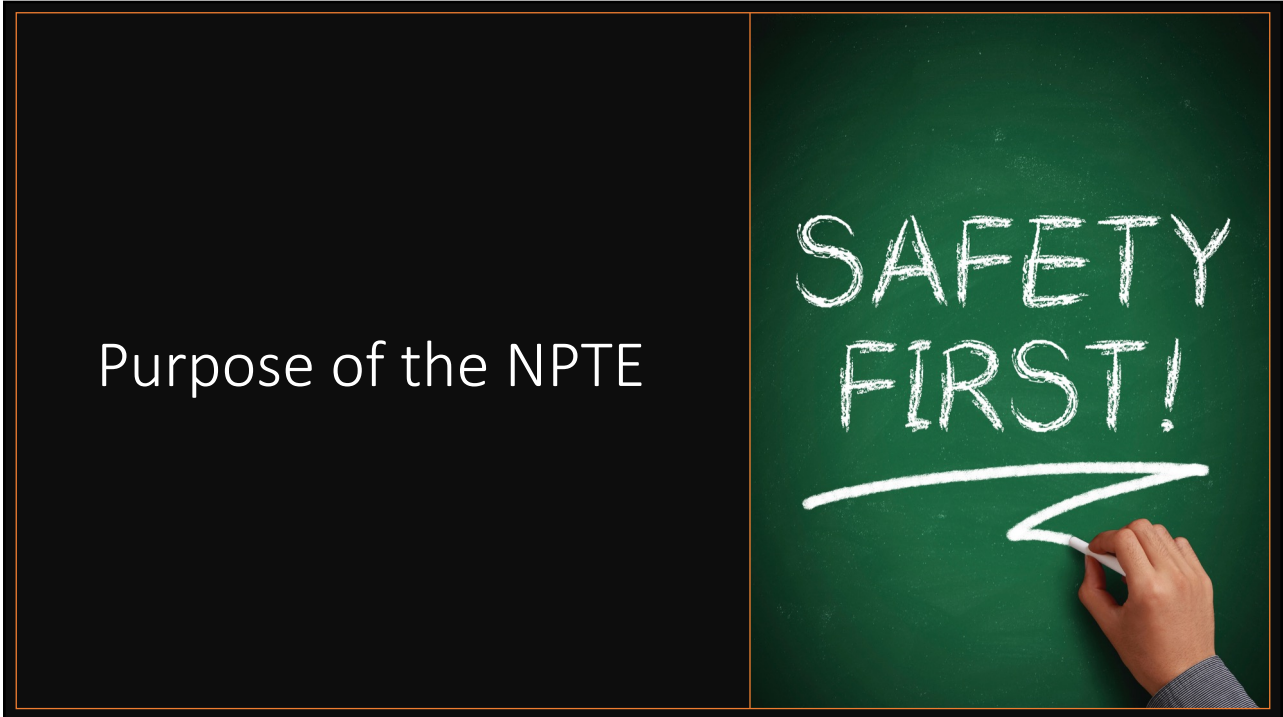
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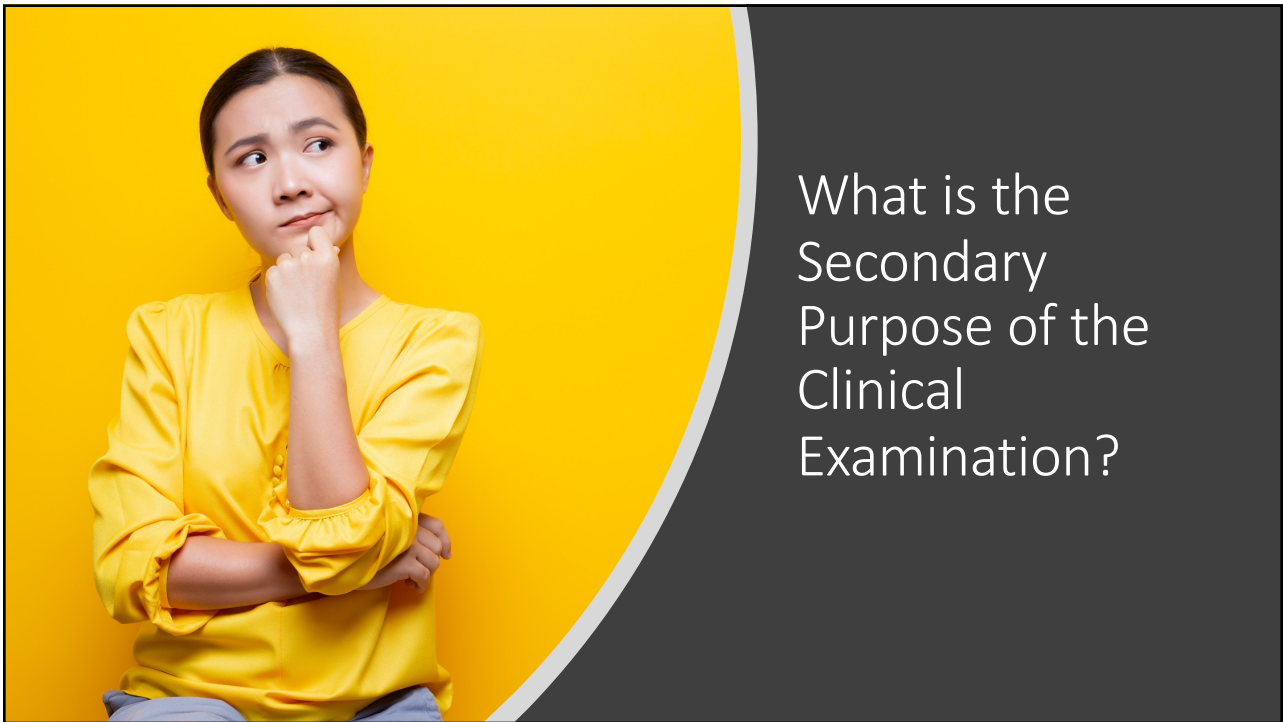
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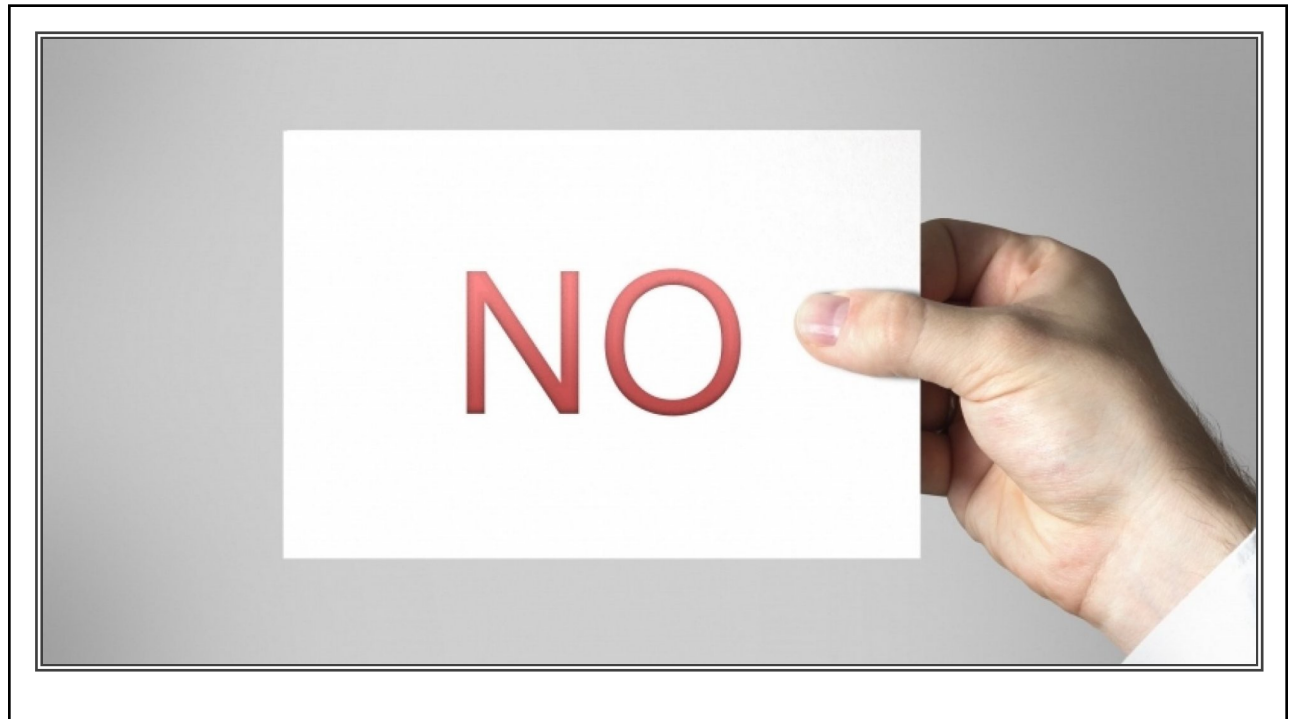
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Arrive at a proper diagnosis

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Objectives

1. Explore systematic process of the subjective history exam
2. Discuss red flag findings and what to do about them
3. Detail MSK screen and examination
4. Detail neuro screen and neuro examination
5. Assimilate objectives 1-4 into NPTE style questions (and rock them!)

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Focused NPTE Prep

Not intended to be comprehensive

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Thank You

Chad Cook, PT, PhD




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Objective #1

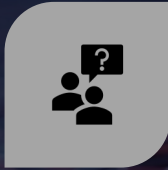
Explore systematic process of the subjective history exam

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Consideration
for your
opening line



WHAT DOES A PATIENT
WANT TO HEAR?



WHAT DO YOU NEED
TO KNOW?

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3 Major Goals of a Patient History

- 01**
Characterize the problem and to establish potential causes
- 02**
Determine the effect of the problem on the patient lifestyle
- 03**
Monitor the response to treatment for examination of effectiveness

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Systematic Process of the Subjective History

Category	Primary Purpose
Mechanism and description of problem	To determine the cause of the injury and to elicit a careful explanation of the symptoms
Concordant sign	To determine the movement associate with the pain of the individual
Nature of the condition	To determine the severity, irritability, nature, stability and stage of the impairment (SINSS)
Behavior of the symptoms	To understand how the symptoms change with time, movement, and activities
Persistent past and present medical history	To determine if potential related medical components are associated with this disorder or may lead to retardation of healing
Patient goals	To understand the patient's goals behind organized care
The baseline (function or pain)	To elicit a baseline measure to reevaluate over time

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Systematic Process of the Subjective History: SINSS

- Severity
- Irritability
- Nature
- Stability
- Stage



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Objective #2

Discuss red flag findings and what to do about them

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Red Flags Findings

- Category I: Factors that require immediate medical attention
 - Pathologic changes to bowel and bladder
 - Patterns of symptoms not compatible with mechanical pain
 - Blood in sputum
 - Numbness or paresthesia in the perianal region
 - Progressive neurological deficit
 - Pulsatile abdominal masses
 - Polyneuropathy
 - Elevated sedimentation rate



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Red Flags Findings

- Category 2: Factors that require subjective questioning or contraindications to selective therapies
 - Impairment precipitated by recent trauma
 - Writing pain
 - Nonhealing sores or wounds
 - Fever
 - Clonus
 - Marked gait deficits
 - Long-term corticosteroid use
 - History of metabolic bone disorder
 - Recent history of unexplained weight loss



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Red Flag Findings: Spotlight on Coronary Artery Dysfunction

Look out for these features:

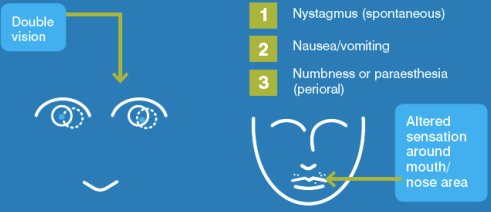
- Older patients over 65 years
- Reports of any of the following typical symptoms of VBI

5 Ds

- 1 Dizziness and/or unsteadiness
- 2 Diplopia – double vision, visual field loss
- 3 Dysarthria/dysphasia – difficulty with speech or finding words
- 4 Dysphagia – difficulty swallowing or unexplained hoarse voice
- 5 Drop attacks – sudden collapse without loss of consciousness

3 Ns

- 1 Nystagmus (spontaneous)
- 2 Nausea/vomiting
- 3 Numbness or paraesthesia (perioral)



APA Guideline, 2017

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Things that Should Make you Say “hmmmm” on the NPTE

- Constant pain
- 10/10
- Empty end-feel
- Night pain
- Bone on bone in open/loose packed positions
- Significant change in patient status
- Rebound tenderness
- Saddle anesthesia
- Night sweats
- Ataxia or clumsiness
- STTT: weak and painless

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Cyriax Selective Tissue Tensioning Exam

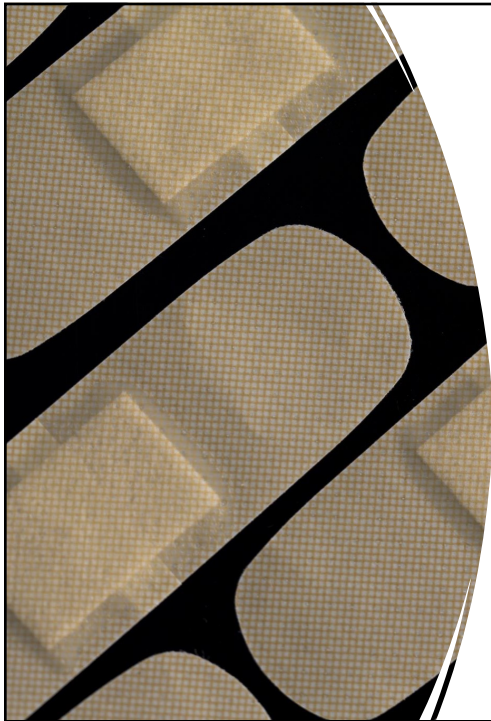
- Normal

- Minor lesion MTU
- “Tendonitis”

- Sarcopenia
- Complete rupture MTU
- Neurologic lesion

- Large lesion MTU
- Incomplete tear MTU

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Pathognomonic (at least for the NPTE)

- SCI: Pounding headache and blurred vision, sweating profusely
- Dizziness getting out of bed
 - Vestibular
 - Orthostatic hypotension
- Unwillingness to bear weight
- Unwilling to rotate head beyond 45°
- Red, hot, swollen

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Objective #3

Differentiate MSK screening vs. examination

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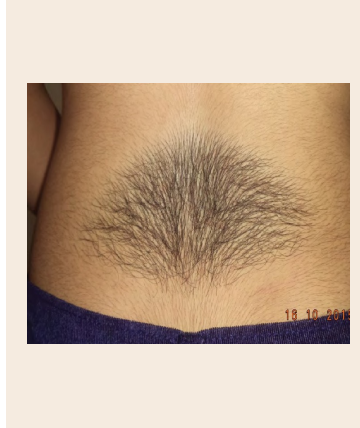
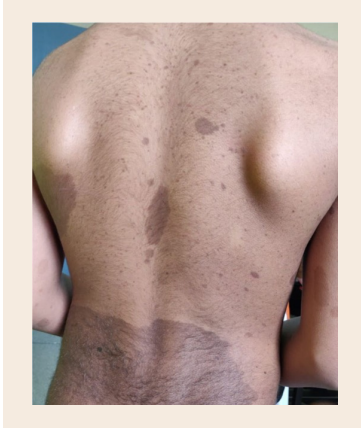
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MSK Screen: Lower Quarter

- Standing observation*
- Postural exam
- Functional tests*
- Lumbar clearing exam*
 - Flexion, extension, quadrant with/without overpressure
 - Prone CPA's and UPA's

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Standing Observation



- Old scars
- Café-au-Lait spots
- Abnormal hair patches
- Abnormal moles
- Lumbar shifts

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Functional Tests



- Gait
- Squat
- Step up
- Stairs
- Bridge

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Lumbar Clearing Exam



- Lumbar AROM
 - Flexion/extension
 - Combined motions
 - With or without overpressure
- CPAs & UPAs

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MSK Exam: Region Specific

AROM with/without overpressures

Strength testing

Accessory glides

Special testing

Trial treatment*

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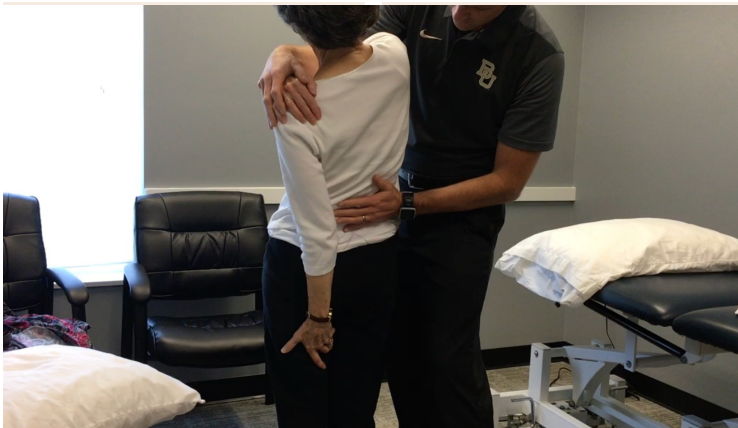
Trial Treatment



- Does this rule up or down my working hypothesis?
- All based on asterisk signs

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Asterisk Signs



- Subjective asterisk
- Objective asterisk
- Functional asterisk

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Objective #4

Detail neuro screen vs. neuro examination

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Neuro Screen

- Myotomes
- Dermatomes
- Reflexes

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Neuro Exam

Screen

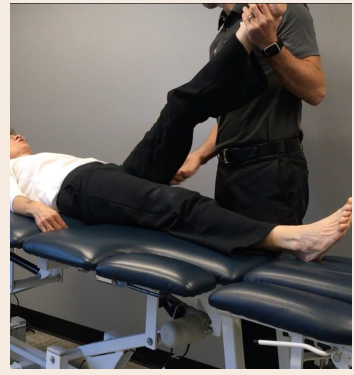
- Myotomes
- Dermatomes
- Reflexes

Exam

- Neurodynamic testing*
- Peripheral nerves
- Special testing
- Cranial nerves*

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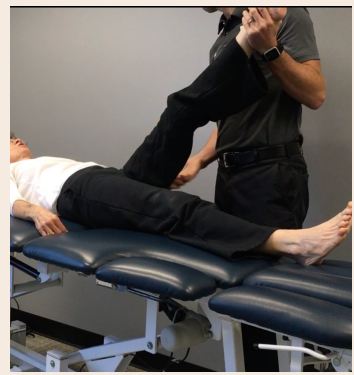
Neurodynamics Testing



- Slump
- SLR
- Femoral nerve test

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Neurodynamics Testing



- What is a positive test?
 - >10-degree difference between sides
 - Is the symptom a reproduction of the patient's symptom
 - Can the response be turned off and on from above and below

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Cranial Nerve Screen

Emilio "Louie" Puentedura
PT, DPT, PhD

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Objective #5

Assimilate objectives 1-4 into NPTE style questions (and rock them!)

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A Quick Note: The Testing Effect

The testing effect suggests long-term memory is increased when some of the learning period is devoted to retrieving information from memory.

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QUESTION 1

A physical therapist evaluates a 24-year-old for back pain who presents via direct access. The patient has no significant past medical history. The patient demonstrates appreciable weakness of the right dorsiflexors. Which of the following options would lead the therapist to recommend immediate referral to a physician?

1. Decreased sensation along the right anterior shin
2. Back pain that wakes the patient up when rolling over in bed
3. Weakness of the right ankle plantarflexors
4. Recent diarrhea

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QUESTION 2

Which of the following options describes a positive slump test?

1. >5 degree difference when extending the left leg vs. the right leg
2. Low back pain during the test
3. Burning pain that can be influenced by both cervical and ankle ROM
4. A sharp pain occurring in the posterior leg during the test

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QUESTION 3

Which of the following stigmata suggests a high likelihood of neurofibromatosis?

1. Café au lait spots
2. Abnormal hair patches near the sacrum
3. A step-off sign along the lumbar spine
4. Atrophy of the lumbar paraspinals

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QUESTION 4

A patient is referred to physical therapy with a history of worsening gait. Upon examination, you find a 4-beat clonus bilaterally along with early heel rise during terminal stance of gait. Which of the following conditions is most likely leading to the patient's impairments?

1. Upper motor neuron lesion
2. Peripheral nerve injury
3. Lower motor neuron lesion
4. Cranial nerve injury

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QUESTION 4

A patient is referred to physical therapy with a history of worsening gait. Upon examination, you find a 4-beat clonus bilaterally along with early heel rise during terminal stance of gait. Which of the following conditions is most likely leading to the patient's impairments?

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QUESTION 5

A 48-year-old patient is referred to physical therapy with a 3-week history of severe knee pain that is aggravated by walking. Examination of knee flexion PROM reveals an empty end-feel. Synovial white blood cell count was found to be 55,000/mm³. Which of the following diagnose is most likely?

1. Osteoarthritis
2. Septic arthritis
3. Rheumatoid arthritis
4. Lupus

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3. Rheumatoid arthritis
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QUESTION 6

A patient presents to physical therapy with a traumatic brain injury with associated cranial nerve impairments. The patient has been complaining of gastrointestinal problems since the time of their injury. Which of the following cranial nerves is most likely to contribute to this reported complaint?

1. Cranial nerve X
2. Cranial nerve XII
3. Cranial nerve VIII
4. Cranial nerve V

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QUESTION 6

A patient presents to physical therapy with a traumatic brain injury with associated cranial nerve impairments. The patient has been complaining of gastrointestinal problems since the time of their injury. Which of the following cranial nerves is most likely to contribute to this reported complaint?

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2. Cranial nerve XII
3. Cranial nerve VIII
4. Cranial nerve V

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QUESTION 7

A physical therapist completes an examination on a 24-year-old male with suspicion of ankylosing spondylitis. Which of the following patient reports would significantly rule up suspicion of this disease?

1. "I wake up at night with back pain, but after walking around for 10 minutes or so, I can get back in bed and sleep another few hours."
2. "I have developed erectile dysfunction over the past 2 months."
3. "I occasionally have numbness and tingling between my legs."
4. "My low back feels really stiff."

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QUESTION 8

A physical therapist evaluates a patient with a suspected L5 radiculopathy on the right. Which of the following findings is most consistent with this condition?

1. Myotomal examination reveals 3+/5 for great toe extension
2. Hyperreflexia of the Achilles reflex on the right
3. Positive prone knee flexion test
4. Trendelenburg gait pattern

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Sources Consulted

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