



83a Clinical Assessment: Structural Anatomy – Part II



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Class Outline

5 minutes	Attendance, Breath of Arrival, and Reminders
45 minutes	Lecture:
10 minutes	Active Study
60 minutes	Total



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Class Reminders

■ Quizzes:

- 84a Kinesiology Quiz (pectoralis major, pectoralis minor, coracobrachialis, biceps brachii, sternocleidomastoid, scalenes, rotator cuff, flexor digitorum superficialis, extensor digitorum, Flexor pollicis longus, and flexor digitorum profundis)

■ Spot Checks:

- 84b Orthopedic Massage: Spot Check – Thoracic Outlet **Bring your grading sheet A: 103**
- 87b Orthopedic Massage: Touch Assessment **Bring your grading sheet for evaluation A: 87**

■ Assignments:

- 85a Orthopedic Massage: Outside Massages (2 due at the start of class)

■ Preparation for upcoming classes:

- 84a MBLEx Prep
 - Using ABMP Exam Coach, select “Study Subjects”, and then “Pathology”
 - For each of the Topics “Basics”, “Meds”, and “Integumentary System”, “Take a Practice Quiz” 4 times (12 total)
 - Research anything that isn’t clear on the Internet and bring what you find to class
- 84b Orthopedic Massage: Spot Check - Thoracic Outlet
 - Packet J: 107-108.



Classroom Rules

Punctuality - everybody's time is precious

- Be ready to learn at the start of class; we'll have you out of here on time
- Tardiness: arriving late, returning late after breaks, leaving during class, leaving early

The following are not allowed:

- Bare feet
- Side talking
- Lying down
- Inappropriate clothing
- Food or drink except water
- Phones that are visible in the classroom, bathrooms, or internship

You will receive one verbal warning, then you'll have to leave the room.



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HOPRS Method of Soft Tissue Assessment

- Stands for
 - History
 - Observation
 - Palpation
 - Range of Motion and Resistance Testing
 - Special Tests
- This method fits with the S.O.A.P. note method already being used.
- “H” corresponds to the Subjective section. A detailed history is very important in determining the tissues involved, the nature of the disruption, and whether bodywork is indicated or contraindicated.
- “OPRS” corresponds to the Objective section. Provides the therapist with more information about what is happening and where to start regarding the client's primary complaint.



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- After interpreting the information gained from HOPRS, the therapist can now document their and the client's impressions in the Assessment section.
- Finally, a functional and beneficial Plan can be constructed for further treatment.



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■ HISTORY

Guidelines for taking an efficient History:

- Only ask one question at a time
- Use both open-ended and closed-ended questions, and each question gives different types of information.
- Start with more general open-ended questions, moving to more specific closed-ended (yes-no) questions.

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■ HISTORY

Questions that can help you take a more informed History

- suggestions to help you get started; you'll make up your own as you get more comfortable

- Where do you feel pain or discomfort? Does it travel anywhere else?
- Have you had any injuries, illnesses, surgeries, broken bones, dislocations?
- How would you describe your pain/discomfort?
- When did the pain first start? Or When did you first notice the pain/discomfort?
- What makes it better? What makes it worse?
- Has this happened before? If so, what did you do for it?
- Have you seen a doctor or other practitioner for it?

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■ OBSERVATION

- This starts the moment you meet your client.
Make note of compensation patterns and/or substitutions as the client tries to avoid pain.
- Take note of visual cues that help identify the client's complaint.
 - Ex. The area they touch while describing discomfort. The way they walk, sit , stand etc.
 - Take note of postural distortion, body symmetry, and movement patterns.
- Continue to make observations throughout the session.
 - What you observe allows you to make plans for further treatment.



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■ PALPATION

- This is the first introduction of therapeutic touch between therapist and client.
- Always ask permission and let them know what you are going to do before you palpate.
- Palpation sets the tone for much of the interaction between you and your client.
- Visualize the structures under your hand / fingers / knuckles etc.; this helps give a sense of the “3D-ness” of structures we’ve only observed as 2-dimensional in our texts.



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■ PALPATION

Tools you can use

- Hands: Try using the back of your hand as well as the palmer side
- Finger pads: Try more flat fingers than finger tips
- Knuckles: can be useful when getting close to more sensitive areas
- Appropriate pressure – biggest mistake = using too much, too fast

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■ PALPATION (continued)

What are we looking for?

The 4 T's and Referred Sensation

- The 4 T's – Temperature, Texture, Tenderness, and Tone.
- Referred sensation:
 - Clients often report sensations distant from the point of contact.
 - Encourage the client to describe the sensation they are feeling; this gives the therapist more information about what structures may be involved and where to work.

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■ RANGE OF MOTION (ROM) AND RESISTANCE TESTING

Evaluate Active movement, Passive movement, and Manual Resistance Testing

Active ROM (A.ROM) =

Performed by the client. Primarily focused on contractile tissue and recreating reported pain.

- Show Client how to do the action
- Observe them moving
- Make note of reported pain / discomfort / limitation, as well as how they perform the action.

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■ RANGE OF MOTION (R.O.M.) AND RESISTANCE TESTING

Evaluate Active movement, Passive movement, and Manual Resistance Testing (continued)

Passive R.O.M. (P.ROM) =

Performed by the therapist.

Primarily focused on evaluating inert tissue, pain, and quality of movement.

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Passive R.O.M. (P.ROM) continued

What we are looking for are the different types of “End Feel”?
(see the *Associated Motion and Normal End Feel Chart*)

- Bone-to-Bone-bone on bone stopping R.O.M. Ex. Head of the humerus and the acromion in shoulder abduction
- Soft-tissue Approximation-where surrounding soft-tissue prevents movement. Ex. Elbow flexion – full flexion prevented by biceps brachii and brachialis contacting the flexors
- Tissue Stretch-feels, leathery, firm, or soft
- Muscle spasm - feels abrupt, occurs before the end of R.O.M., and is usually painful
- Springy - caused by loose body in joint space and does not move the same every time
- Empty - no mechanical obstruction, but client stops suddenly due to pain



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How to perform P.ROM

- Determine motions possible a joint
- Choose motion to evaluate
- What tissues are involved in passive motion
- Determine normal end feel
- Client should be as relaxed as possible
- Perform passive movement
- Note pain, discomfort, limitation, guarding, etc.

Pain with P.ROM

- If pain is reproduced before end-feel then inert tissues are more likely involved
- If pain is reproduced near end-of-range then more likely nerves and stretched muscles are at fault

No Pain with P.ROM

- Inert tissues are most likely uninvolved



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Manual Resistance Testing (MRT's) =

Client initiated movements against Therapist resistance

How to perform MRT's

- Determine movements possible at joint or segment
- Select motion to evaluate
- Determine tissues involved in resisted motion
- Test uninvolved side first
- Find position that properly engages muscle tissue
- Client performs contraction against therapist resistance



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How to perform MRT's (continued)

- Make note of pain, weakness, and / or discomfort
 - Pain - indicates some type of injury to muscle-tendon unit
 - No Pain - may not involve contractile structure isolated during MRT
 - Weakness - indicates neurologic deficit
Examples: Peripheral neuropathy, radiculopathy, upper motor neuron lesion, systemic disease. Refer the client to a physician for further testing.

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■ SPECIAL TESTS

Orthopedic tests to determine potential tissues or structures involved in reported injury or dysfunction.

Special tests are designed to evaluate the likelihood of a specific problem.

Example: Thoracic Outlet Syndrome (TOS)

Two factors determine the accuracy of a special test:

1. *Sensitivity* - measure of how accurate test is at identifying everyone who may have a condition.
2. *Specificity* - measure of how accurate test is at producing a negative result, ruling out those that do not have condition.



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■ SPECIAL TESTS

Special Tests specific to TOS:

- *Adson Maneuver* - General TOS test, more specific to Anterior Scalene Syndrome
- *Allen Test* - General TOS test, more specific to Anterior Scalene Syndrome
- *Military Brace Test* - specific to Costoclavicular syndrome
- *Wright Abduction Test* - specific to Pectoralis Minor Syndrome



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