



## STUDENT RESOURCE

# Applied Anatomy & Physiology for Manual Therapists, 2nd edition

## Case Studies

### Chapter 8

### Neuromuscular and Myofascial Connections

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#### Case Study 1

Emily is a golf pro who comes to see you two weeks after surgery to repair a torn rotator cuff muscle in her left shoulder. She is wearing a sling that holds her left arm across her chest. Her primary concern is severe pain and stiffness in her posterior neck and upper back. She has also reports frequent headaches, which “never happened before the surgery.” During palpation you find several super-tender areas in the pectoral muscles. Pain does not radiate anywhere when these tender areas are pressed. You also find some taut bands of muscle and a few knots in Emily’s posterior neck muscles. When these knots are pressed, she says, “I can feel that all the way up to the top of my head and a little bit into the shoulder.”

- 1) Would you classify the tender areas in the pectoral muscles as trigger points or tender points? Why?
- 2) What is the physiologic explanation for how these points may have developed?
- 3) Are the points in Emily’s posterior neck muscles trigger points or tender points? Why?
- 4) Is the physiologic process for the development of these points the same as those in the pectorals? Explain.
- 5) In addition to direct tissue manipulation for these areas of tension, how could you utilize normal neuromuscular reflexes to reduce the general muscle tension throughout Emily’s neck, upper back, and chest?

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## Case Study 2

You have a new client, David, referred from a therapist friend who has retired. The therapist sent their files with David for your review. You see that he has frequent stress headaches and posterior neck pain, and he had been seeing the other therapist for approximately six months. The intensity and frequency of his headaches have reduced, but he wants to “stay with it” until the headaches are rare, if not gone. The records and his report indicate that his treatment sessions often began with him face-up for work in his chest and abdominal regions. When he was prone, a significant amount of time was spent with myofascial work in his lumbar aponeurosis. Today, you observe that David’s head is held slightly forward and his shoulders are rounded. There appears to be some horizontal “tension lines” from his eyes to his ears, and across his collarbone.

- 1) What is the possible anatomic rationale for beginning David’s treatment in the chest and abdomen?
- 2) Why do you think the other therapist included so much myofascial release in the lumbar aponeurosis?
- 3) Which myofascial trains would you want to fully investigate for tension and/or tenderness? Why?
- 4) What is the significance, if any, of the restricted horizontal bands around David’s eyes and clavicle?