joint dysfunction, neck pain and headache.

Welcome to the Beyond Trigger Point Seminars, Neck & Head Unit, Module 1 on the trapezius, levator scapulae and facial muscles. This is Cathy Cohen. Your mission for this unit is to differentiate headache pain patterns and make better educated guesses about the involved muscles. You will be able to do this just from hearing your client's story of injury or from knowing what their occupational or recreational movement patterns are. Another goal for this unit will be to identify forward head posture and its relationship with temporal mandibular

On page 2 of the study guide, we will begin this exploration by describing the action of the trapezius on the spine. All three of the trapezius sections act on the spine by assisting in cervical and thoracic spine extension. So again, both the upper, middle and lower traps hold the neck and thoracic spine erect.

The upper trapezius fibers action on the scapula is to elevate and upwardly rotate. The action on the clavicle is to elevate and rotate the sternalclavicular joint. Take your index finger and follow your own collar bone towards midline. When your finger reaches the sternum you have arrived at the sternalclavicular joint. During postural assessments you will notice how the collar bone can rotate in an upward or downward spiral. You can make good assessments about which upper trapezius is more hypertonic based upon the position of one clavicle as compared to the other.

The middle trapezius fibers work just on the scapula. Working synergistically with the rhomboids, the middle trapezius fibers retract the shoulder blades. Another way to say that is, the action of the middle trapezius is to adduct by pulling the scapula towards midline.

The lower trapezius fibers also adduct the scapula. Their other actions are depressing and stabilizing the position of the scapula while other muscles are rotating it. So again, the lower fibers stabilize, depress and adduct the shoulder blade. We will see how the lower fibers become weak from a variety of reasons you will be able to identify shortly.

But first, let's identify the locations of the trigger points in each of these three segments. We can nick name the trapezius muscle *Tension Headache*. At the top of page 3 with the figure of the muscle and the documented trigger points, there is room for you to write, Tension Headache. In the first edition of Myofascial Pain & Dysfunction the Trigger Point Manual Volume 1, Dr Travell had given many of the muscles these nicknames to help the practitioner remember a key characteristic or behavior of the muscle

Identifying the behavior of the muscles was one of Travell's geniuses. I want you to become so familiar with the behavior of each muscle we study, that you too will be on first name bases with each muscle. For example, when your client presents with trapezius problems, they walk in your door, agitating and fidgeting with their shoulders and neck, moving their shoulders up and down and their head side to side trying to find relief. Have you seen this? From now on, your light bulb will go off and your mind will say, "The trapezius is causing those jerky neck and shoulder movements. I can help this person!"

On page 279 of our textbook, 2nd edition Volume 1, you see the documented trigger point sites for the trapezius. If you're participating in this program without the textbook, that's ok, just look at page 3 of your study guide for the pictures of the muscle with the documented trigger points. Using a colored pencil or pen, draw on the body scan on page 2 of the study guide where you think the first trigger point is located. Again, I suggest drawing an "X" on the first body scan picture in the upper left corner of page 2 where you think trapezius trigger point 1 might be and then draw the pain pattern. The *solid* area you are drawing along the side of the neck up to the mastoid process and into the temporal area represents the primary pain complaint. There might also be a primary pain complaint along the jaw. Do you see the solid coloring there? The stippled or the more lightly colored areas are said to be the spillover or secondary pain complaint. The spillover pattern may or may not be present when compressing the trigger point.

In this chapter the authors, Travell and Simons, labeled this trigger point 1 because it is the most frequently occurring trapezius trigger point of all the seven trigger points you will be drawing for this muscle. This is also the most frequently occurring trigger point in the entire body. In a study of 200 healthy asymptomatic young adults, trigger point 1 was the most commonly identified. So if you were to memorize only one trigger point, make it this one! Remember from the introductory lecture that a trigger point can be either centrally located in the belly of the muscle or at the attachment sites.

Trigger point 2 is another centrally located point you'll encounter quite frequently. It's more posterior than trigger point one. Draw an "X" on a blank body scan. And then, draw its pain pattern to the back of the neck. You can see why so many people describe their headaches as neck aches.

Do you see trigger point 3 on the lower trapezius? This is another very common and often overlooked source of pain. Do you see how the trigger point is near the lateral edge of the lower trapezius? You can see how the pain pattern will travel cephalad by the acromion process. It can be felt deep to the suprascapular region

and all around the shoulder blade. There is a heavy pain pattern through the top of the neck to the mastoid process as well. Draw that pain pattern now.

Trigger point 4 is another lower trapezius trigger point. This is an attachment trigger point which has a spillover pattern along the vertebral border of the scapula. When you are rolling on the lower trapezius, you may have felt how it sticks and feels crunchy, like broken glass. Often it's just on one side. This is an area where we can easily feel restricted tissue gliding. The lower trapezius can respond beautifully to soft tissue work. Restoring the balance between the left and the right lower trapezius by deactivating a trigger point and then eliminating the fascial restrictions can make a tremendous difference in how your client's neck feels

Trigger point 5 is one of two trigger points in the middle trapezius. It is a central trigger point in the mid-section of the middle trapezius fibers. You can see the pain pattern in your textbook on page 281 or on your study guide to the right of trigger point 4. This trigger point causes a superficial type of pain around the trigger point location.

Let me share a case story. One gentlemen presenting to my office with this pain complaint had been driving through a toll gate in a convertible. Maybe he hadn't paid the toll or maybe his car stalled, because when he started to see the toll gate bar come down, he ducked and was struck hard across his middle trapezius. This was the insulting injury creating that trigger point in the middle trap fibers and the pain pattern you just drew. He couldn't quite reach it to show it to me, but when the trigger point was compressed, it reproduced his pain pattern and then within eight to ten seconds it quickly released and relieved his complaint. I had another gentleman, a police officer, who rolled his car in a high speed chase. He brought in pictures to show me how the top of the vehicle had flattened down around him. After a period of healing from different injuries, this was the one pain complaint remaining; the pain along the spine caused from trigger point five.

Go ahead now and draw trigger point 6. I don't see this one as frequently and neither do the authors apparently. That's why it's trigger point 6. But go ahead and draw it as an attachment trigger point. It is a documented trigger point you may encounter.

Now look over to the last trigger point on this page. What we see here is a stippled area down the lateral and dorsal side of the arm causing goose bumps. When compressing trigger point 7 your client might describe a pilomotor response, or as it was called on the Eastern Shore Maryland where I once worked, a duck bump response.

If you are listening or reading the transcripts, I strongly encourage you to use the body scans on the study guide to draw the pain patterns. Even the palest ink will help you better memorize the pain referrals than not drawing anything at all.

What might be even *more* helpful is to apply this knowledge on the very next person you touch. The foundation for treating myofascial pain syndromes due to trigger points is built on your confidence to palpate the hypersensitive nodule harbored within the taut band. When you are on the nodule you perceive as the trigger point, slowly and steadily compress the spot while asking your client if they feel pain referring elsewhere. Honor your client's pressure tolerance and hold your compression about eight or ten seconds until you feel the tissue releasing. If you are participating in a hands-on workshop, your palpation skills will be refined and mastered

Let's turn to page 4 of our study guide and answer this question, "How is the trapezius muscle activated and perpetuated?" This is a muscle we treat routinely, so I want to be perfectly clear about why this muscle may not have healed on its own, or why you may have had only temporary results when treating it. The trapezius, like many other muscles, is activated by either sudden trauma like falling down or having a whiplash, or chronic micro trauma like repetitive motion injuries.

Keep in mind, what activates a muscle, what sets in the trigger point, might be one factor. Then another factor perpetuates the trigger point thus preventing the muscle from returning to its normal rested position. Or, the activation & perpetuation factor could be the same. Using our earlier example of the policeman, the car accident initiated the formation of the trigger point and his sleep position perpetuated the problem.

Determining the reason for why the muscle didn't heal on its own is usually the most critical piece of work we do for the client. If the muscle hasn't healed on its own, there is probably a perpetuating factor that needs identification. The detective work of investigating which perpetuating factors might be present is, in my opinion, the most exciting part of our treatment delivery.

There are five categories of factors to consider when asking yourself the question, why hasn't the upper trapezius healed its own? They are: lower limb length inequality, small hemipelvis, short upper arms, shoulder elevation activity and clothing restrictions.

A lower limb length inequality, also referred to as an LLLI is shown on page 6 of the study guide. A leg length disparity can be either genetic or functional, meaning an individual could either have been born with one leg bone; usually the femur or the tibia, smaller on one side, or life's repetitive actions and insults has caused an imbalance in the musculature resulting in a leg length disparity. Clients compensate for this factor by generally standing on the shorter leg and throwing the longer leg out to the side and forward slightly. This compensatory stance levels the pelvis, straightens the spine and keeps the head and eyes even with the horizon.

Another mechanical imbalance activating or perpetuating the trapezius is a small hemipelvis. A small hemipelvis is a physical anomaly of one hip bone being smaller than the other. You are born with this imbalance. Clients compensate for this factor by crossing their small hemipelvis leg over the larger hip. Sometimes you will observe more flexible clients sitting with their leg tucked under the small hip. Both these compensatory behaviors level the sit bones which in turn straighten the spine and align the shoulder girdle axis. It is understandable why imbalances down below will affect us up above; if the spine is crocked, then the scapula and the clavicle will be repositioned by all three of the trapezius fibers.

Another perpetuating factor might be short upper arms, shown on page 7 of the study guide. This is another familial physical anomaly. Short upper arms describe the ratio between the lengths of the upper arms to the torso. When the arms are to the side and the forearms are bent so they are perpendicular to the floor, a normal ratio is for the elbows to touch the top of the iliac crest. If they don't, if the elbows rest above the iliac crest, as shown on picture "A", then we say the client tests positive for short upper arms. Short upper arms create the need to bend or lean in as shown on picture "D" in order to reach the arm rests on chairs. So with short upper arms there is a tendency, when seated, to lift the shoulders which increase the work load in the shoulder elevator muscles. The forearms, from the elbow to the wrist, naturally rest in the lap with a normal upper arm to torso ratio. Chairs are designed for a normal ratio. I have short upper arms, so I am sensitive to educating my clients about keeping their forearms supported when they are sitting, especially when driving long distances.

Activities causing shoulder elevation also create strain. Walking with improperly fitted canes or crutches causes the shoulders to elevate. A cane fits a person well when the elbow is bent to about a 30° - 40° bend. A 30° angle is the naturally occurring bend to the elbow when you're carrying a heavy suitcase along your side. So you can check that. Make sure the cane or walker is not hiking up one of the shoulders.

The upper trapezius has an antigravity function. When you are holding something like a suitcase in your hand, eventually you'll start lifting your shoulders to give your arm muscles a break. Eventually, the load causes individuals to tighten their upper trapezius.

Other shoulder elevating activation occurs while cradling a phone, playing a violin or jogging. I had a patient with long, blonde hair. During intake, I noticed she was constantly flicking her hair and rotating her head. I mentioned this might be aggravating the trigger point I suspected she had in her upper trapezius. After a few treatments, she came in with a short haircut. That was her solution to a nervous habit of elevating her shoulders.

Dr Travell had an unsparing eye for human movement and its effect on the human structure and she didn't compromise the rigorous precision of her observations. Without sounding judgmental or condescending, she was always educating her patients and figuring out the solutions to correcting the insulting movement. She was also adamant about correcting restrictions due to clothing.

Once when I was with her she noticed the indentation left on my calves from a pair of knee high panty hose. She whipped out a pair of scissors, cut the elastic at the top and assured me both the socks and my calves were being spared. Whenever you see a bra strap indentation along the top of the shoulders, know that the circulation to the upper traps is being impaired. Compression from backpack straps as well as purses can irritate the upper trapezius too.

On page 4 of the study guide we can now answer the question, "How are the middle trapezius muscles activated & perpetuated?" The middle fibers become involved because of a rounded shoulder position. We would anticipate if someone's middle traps were rounded then they would also be presenting with tight pectoralis major muscles.

Another factor causing a rounded shoulder position is mouth breathing. I like to ask people when they present with the rounded, forward head posture if they are a mouth breather or have they ever been a mouth breather. For example as a child, did they have allergies or asthma? Did they learn to open their mouth to breathe because of obstructed nasal airways? Repetitively dropping the lower jaw pulls the head forward, creating increased load on select cervical muscles.

Another factor creating trouble in the middle trapezius is when the arms are held up and forward. Think about that. When you have someone presenting with a rounded shoulder posture, what type of profession do they have? For example, beauticians hold their arms up and forward creating a tendency for the anterior

chest to become tight and the posterior side to become over stretched. Another activity might be holding the top of the steering wheel. I am sure you can think of other occupations that hold the arms up and forward too.

Finally, what activates and perpetuates the lower trapezius? I'll mention two: reaching forward and spectator back. The first activation occurs when activities such as prolonged bending and reaching forward, for example across a massage table, places the lower fibers in a strained position. I want you to know how serious I am about helping each and every one of you individually in the workshop with your posture. I will be your eyes to increase your awareness about your stances around the table. We will also be doing a number of exercises to increase your postural awareness. For information on workshops, visit www.beyondtriggerpoints.com.

Spectator back occurs when sitting in bleachers without back support. and holding their chin in their hands. Those of you listening with kids who play soccer or football know how easy it is to take the torso off anatomical neutral by leaning forward and propping the chin in your hands. Maintaining that position over time can lead to trouble, trouble trouble because, as we shall see, the upper traps tendency is to become short while the lower fibers become overstretched.

The answer then to the next question on the findings and tests on page 5 for trapezius involvement is the upper fibers are too tight and the lower trapezius shows signs of weakness. To paraphrase a structural integration therapist, the upper traps are locked short and the lower traps are locked long.

Let's start with the lower fibers of the trapezius. Remember, the job of the lower trapezius is to stabilize the scapula. When the lower trapezius becomes inhibited due to its own trigger points or from other sources, you will notice how the scapulas ride up and splay. This may cause the pectoralis minor muscle to develop an adaptive tightness which can result in an easily observed rounded-shoulder position.

While the lower fibers are prone to weakness and inhibition, the upper trapezius tends to be hyperactive. During postural assessments, students quickly recognize how the upper trapezius looks rounded and elevated. Also, you will observe how the sufferer moves their neck frequently in an attempt to release the tension. When you ask your client to bring their ear to shoulder, lateral flexion may be tighter on one side more than the other. The upper trapezius controls the last 10° of cervical rotation to the opposite side so the client might also experience pain and stiffness during that final arch of movement. Again, when rotating the head to the right, the right sternocleidomastoid is activated. Then, during the last 10° of

rotation, the left upper trapezius is activated. You might also observe intolerance to heavy clothing worn on the shoulders. It will feel like a strain to wear a heavy jacket or a strap across the upper trapezius mound.

I'll be listing 9 correctives actions on page 5.

- 1. Correct structural imbalances. For short upper arms or in chairs with no arm rests, train your clients to do the following. If they're female, place a purse across their lap so their forearms have something to rest upon which allows the shoulders to relax. Certainly people who type or sew need to think about the positioning of their arms. Anatomical neutral is best obtained by keeping the elbows close to the torso and the shoulder blades depressed when typing for example. I often have a pillow across my lap to keep my elbows and forearms supported when I'm sitting. Nursing moms will find it more relaxing on their trapezius muscles to place a pillow underneath the nursing baby and their arm.
 - 2. Avoid resting a phone between the head and ear by purchasing a speaker phone using a headset or a Bluetooth earpiece.
 - 3. On the steering wheel of a vehicle, keep the hands at the 4 & 8 o'clock position. By keeping the hands lower on the wheel, the shoulders can remain in a more relaxed position. When I learned to drive we were taught the 2 & the 10 o'clock position. In driver's education now they're teaching the 4 & 8 o'clock position to prevent injury to the fingers if an airbag goes off
 - 4. We need to help our clients who work on their computer all day. This is a country of "flex-aholics". We sit a lot! We need to teach our clients to move every 20-30 minutes. For some that might just be setting an alarm across the room so they are forced to get up to turn it off.

Maybe the most useful piece of education you can give your clients, that will last a life time, is seated ergonomics. I have some educational handouts I give my patients on seated ergonomics and their work station. You can download a copy of this at www.beyondtriggerpoints.com. Look under the resource tab. I'll also have copies available for you during workshops.

Let me talk you through an exercise on seated ergonomics. Go ahead now and put your pencil down and sit comfortably in your chair. If you're not already, imagine you are in front of your computer. Bring your elbows to your sides with the forearms parallel to the floor. The wrists are straight and are not resting on any

surface. Your shoulders are relaxed, back and down. Your head is level, facing straight ahead, with your eyes gazing slightly downward. The monitor is centered in front of the keyboard. The top of the screen is at eye level. Both the keyboard and mouse are at your elbow level and close to each other. Have the backrest slightly tilting back with your lumbar curve supported. The seat is level or tilted slightly forward with your thighs parallel to floor. Your knees are slightly lower than your hips and your feet are resting flat. Now you are in a good seated posture.

- 5. We also need to teach our clients to sleep in anatomically neutral positions using a feather, shredded Dacron or memory foam pillow. Dr Travell believed sleeping on hard foam pillows is unhealthy for the neck. According to one study, every time the head moves on a solid foam pillow there is increased electrical activity in the cervical muscles. The neck muscles relax more when the head is on a shredded or feather or memory foam pillow. During our unit on the sternocleidomastoid, we'll take another look at night time neck positioning.
- 6. For compression on the traps due to a bra strap; go to a fabric store and in the notions section, for under a dollar, you can buy some padding to put underneath bra straps. This prevents the strap from cutting into the upper trapezius. Purse straps can also compress the muscle. While working in New York City, Dr. Travell observed how women, to prevent thief, carried their purses across their torso, with the strap resting on one shoulder and the purse on the opposite hip. By moving the strap on top of the acromion process, the purse's weight will rest on a bone rather than the more sensitive trapezius muscle. Our children too need to be reminded how important it is to place their book bag across both shoulders.
 - 7. Also for people who stand long periods of time, suggest placing their hands in their pockets to reduce the strain on the shoulder elevators.
 - 8. There are some wonderful self-care techniques we can teach our clients. One is using an S-Hook for the upper trapezius. You can find links for some of my favorite tools on the resource tab at www.beyondtriggerpoints.com. Around Christmas time I buy a dozen of these backknobbers. They sell wildly and make great gifts for people. You can apply compression over trigger points in the trapezius. Then you can work the tool all down the back of the body as well.

Or you can just hand out tennis balls. I keep a drawer full of used tennis balls from my dad at my office. He's given me all his old tennis balls that have lost their bounce. I put two balls in a sock and tie a knot between the

balls and another knot at the end. These can be chilled and then rolled upon to apply ischemic compression. On page 490 of the textbook is a picture of this self-treatment tool.

9. The final corrective is neck stretching. Why don't we all stretch our own necks now? If you're sitting down, grasp your left hand underneath your chair and then slowly bring your right ear towards your right shoulder. Keep your face forward. Let's repeat on the other side. That's a nice stretch to the upper trapezius. On page 303 of the book, there is an exercise for the middle and lower fibers of the trapezius. You can also find a reproduction of the picture on the resource page of the website on the Shower Neck Stretches handout.

Let's go now to page 8 of our study guide. The four actions of the levator scapulae are:

- 1. Rotating the scapula downward. The rotation occurs in the glenoid fossa.
- 2. Assisting in neck rotation to the same side.
- 3. Check reining flexion of the neck. I like that word, check rein. Like the reins on a horse, when both muscles are working together, this muscle pulls the neck back. When you're flexing your neck forward both the muscles are contracting so your head doesn't fall forward too much.
- 4. Elevating the scapula, as this muscle's name implies.

On page 493 of the book or on the next page of your study guide, there is a beautiful picture of the levator. It shows the spiral formation the levator fibers take at the crook of the neck. Keep in mind that the levator attaches off the medial superior border of the scapula and has attachments on the upper four transverse processes of the cervical spine. At the juncture where the trapezius meets the neck, the levator twists and that's where we're going to encounter a central trigger point.

Take out your colored pencils again and draw the two documented trigger points of the levator. One is an attachment trigger point. It lays about an inch to an inch and a half off the medial superior border of the scapula. That's the attachment one. Often that area feels crunchy doesn't it?

These areas can feel crunchy because of fascial thickening. Recurring concentrations of muscle stress provokes inflammation with a strong tendency

towards fibrosis and calcification. The fascial change occurring at the musculotendinous junctions is referred to as enthesitis. The levator is often under stress; check reining the neck and doing its work of elevating the shoulders.

The second trigger point you are drawing is at the twist there. If you join me in a workshop I can help you find this point. It's a tricky one to find because it's beneath the anterior border of the traps. But, it's the most critical one to release. When you release this point, the shoulders just drop. So you see the pain pattern is in the nape of the neck with some spillover. The nickname for this muscle is the *Stiff Neck or Weight of the World Syndrome Muscle*.

Why? Because when the patient walks in, and looks for a place to sit, instead of turning just their head, they turn their whole body to look for the chair. It hurts to turn their neck. So we would expect to see restricted neck range of motion with the levator.

The upper trapezius and the splenius cervicis are likely involved with the levator too. Both the splenius cervicis and the levator can cause articular dysfunction from C3- C6. Those of you working with chiropractors who are constantly adjusting cervical vertebrae three, four, and five will find it useful to detail these muscles. As you know, bones are dumb and muscles are smart. A bone can't just get up and walk out of alignment. It's the imbalances in the muscles that generally cause the articular dysfunctions.

So when we ask the question, "What activates and perpetuates the levator scapulae muscle?" We can answer categorically, three different ways.

1. Postural stress, we nicknamed this muscle the Weight of the World Syndrome because posture can be an expression of emotional stress. Often the shoulders are unconsciously being lifted as a response to stress. Clenching the jaw and tightening the fists are other automatic stress responses.

Falling asleep with the neck awry is another example of a postural stress. When you fall asleep in your lazy boy and the neck ends up on your chest, oh boy- that can cause the levator to become real stiff.

Another occupational stress might be working overhead. Good examples are painters or people who wallpaper or any work where the hands are overhead.

Cold drafts. When the neck is cold we elevate our shoulders as well. That would be another example of postural stress on the levator.

2. A second category is activity and overload stress. Some examples are body asymmetries like the lower limb length inequality.

You can see on page 10 of the study guide somebody holding a cane. One hip is elevated. That can cause one shoulder to ride higher. Up the line, everything will compensate for an imbalance down below.

The levator can also become involved because it is situated in the referred pain pattern of the upper trap. The upper trapezius is a very common trigger point and the poor little levator just happens to lie within the pain zone of the upper trapezius pain referral. As a consequence, we would say the levator trigger point has become a satellite myofascial trigger point to the upper trapezius.

If you know your client primarily has an upper trapezius pain pattern, up along the side of the neck and into the temples, then it would be appropriate treatment protocol to begin with the trapezius and in later treatments work the satellite muscle, the levator. Whiplash and spectator neck positioning are overload stresses to the levator as well.

3. The third category of activation and perpetuation are infections. Dr. Travell observed that when people present with oral herpes, there was an increased incidence of trigger points in the levator and the trapezius.

Our new word for the day is prodromal. P-R-O-D-R-O-M-A-L. It comes from Greek roots meaning 'before running'. Before you develop a cold or upper respiratory infection, there is that stiff feeling in your neck or shoulders. So, infection in the prodromal stage of an upper respiratory problem might give rise to trigger point development in the levator.

Moving on to answer the question, "Name some findings for levator involvement":

- 1. Difficulty rotating towards the ipsilateral side; meaning difficulty rotating towards the involved side.
- 2. Stiff neck. If the neck is moving freely, then the levator is not involved.

What are the correctives for the levator?

1. Stretch the neck in the shower while seated on a waterproof stool. For people who have ongoing occupational strains, like a painter, investment in a

Rubbermaid stool will remind them to regularly stretch their neck with the hot water beating down on it. The levator is stretched by rotating the head a quarter of a turn and then bringing the chin to the chest. This muscle responds well to any type of moist heat and stretching.

- 2. Using a head set with their phone.
- 3. Positioning pillows so the neck is held in anatomical neutral.
- 4. Keep material, such as books or computer screens, in line with the eyes.

The principle is to avoid sustained neck flexion. Hey, if you are in the habit of always looking down while you're giving massages, hang a mirror or a picture you like to look at so you are not looking down as often. This will help save your neck from our occupation strain.

Finally, on page 11, the actions of a few facial muscles:

- The action of the orbicularis oculi is blinking.
- The action of the occipitofrontalis is to wrinkle the forehead.

These muscles can develop, and the fill-in is, satellite trigger points because they lie in the pain referral zone of other muscles such as the sternocleidomastoid which commonly produces head and face pain.

On page 417 of the textbook or on the next page of the study guide, you see three different facial muscles. We are not reviewing all of these but have a look. Many students tell me they remembered that page when one of their clients presented with these "funny pain patterns in the face".

Picture "B" is zygomaticus major with its trigger point pain pattern. I saw one poor fellow who had had his face broken during a mugging on a boardwalk. His jaw had been surgically reconstructed and he was referred to me for residual headaches from trigger points in the SCM. Once those resolved the last piece of the pain complaint remaining was from a taut band and trigger point in that facial muscle. One treatment eliminated the satellite trigger point in the zygomaticus muscle.

Go ahead now and draw the pain pattern of the orbicularis oculi you see on picture "A" onto the face provided on page 11. Your client will describe that pain

pattern by taking one finger and running it down the side of their nose as you see there.

The occipitofrontalis muscle, nicknamed the *Scalp Tensors*, is shown on page 13 of your study guide and on page 428. Go ahead and draw "X's" over the two documented trigger points. One trigger point is located posteriorly on the occipital part of the muscle and the other is over the frontal area. You can see how a distinct headache pattern is created behind the eye or in the forehead or through the head. Remember the action of the muscle is to wrinkle the forehead. So prolonged squinting can aggravate the occipitofrontalis.

If you are ready to put down your pen, let's end by exercising our own occipitofrontalis by doing eyebrow lifts. Are you ready? Place an index finger above each eyebrow and then lift your eyebrows up. Lift your eyebrows up high as though you're trying to push your fingers up, off your forehead. Open your eyes up wide. The index fingers are providing a resistance for the muscle to push against. Do you feel the contraction in the back of your head yet? Good job!

This concludes Module 1 of the Neck & Head Unit. Feel free to contact me at info@cathycohen.com if you have questions or comments. Stay in touch!