ANATOMY OF MUSCLE CONTRACTION HEADACHES

Injury or strain to specific muscle regions may produce small tight areas of muscle called trigger points, like a knot in the muscle. These are marked by a "x" on each diagram. Because of shared nerve pathways, trigger points often produce referred pain in far-away areas, as indicated by the shading in the diagram. The darker the shading, typically the more common and intense the pain in that area. The diagrams below show how the location of certain trigger points in the neck, upper back, and upper shoulders often produces pain around the eyes, ears, forehead, top of the head, and face.

Splenius cervicis muscle
Splenius capitis muscle
Semispinalis capitis muscle
Semispinalis cervicis muscle

Trigger points in the back of the neck may also produce blurred vision, especially when the person or viewed object is moving.

TRAPSEZIUS MUSCLE
STERNOCLAVICULAR MUSCLE

In addition to head pain, trigger points in the long muscles of the sides of the neck may also produce nausea, vomiting, light-headedness, changes to balance, and dizziness.

TEMPORALIS MUSCLE

UNDERSTANDING MUSCLE CONTRACTION HEADACHES

Learn about the characteristics of muscle contraction headaches, what triggers them, where the tension comes from, and how to ease the pain.

CHARACTERISTICS OF MUSCLE CONTRACTION HEADACHES

| INCIDENCE | Roughly 90% of post-injury headache sufferers, as well as those suffering from tension headaches generally. |
| CAUSE | Muscles contraction in the neck and head following injury to neck and head muscles. Not caused by brain injury. |
| FAMILY HISTORY | Not usually. |
| LOCATION | Circumference of head, side of injury, neck and back of head, forehead. |
| OTHER SYMPTOMS | Pulling in the neck/shoulder area. |
| AGGRAVATING FACTORS | Physical activity (upper body), resting, intense concentration, stress, loud noises, bright light, anxiety, depression, anger, frustration, worry, arguments, poor sleep patterns, poor sleep. |
| LIFE THREAT/DANGER | None, but very uncomfortable. |
| RECOVERY TIME | Usually within two years. Sometimes ongoing but manageable, allowing for return to previous activities. Not usually a chronically disabling condition. |

RREEES
Research, Education, and Extension Services
AGGRAVATING FACIAL EXPRESSIONS

**EXPRESSION**
- Clenched jaw/teeth
- Grimacing from pain
- Intense concentration during reading/conversation
- Angry/worried/irritated/stressed look
- Prolonged smiling

**REMEDY**
- Consciously relax area
- Temporarily raise brows
- Occasional focusing of eyes on distant objects
- General relaxation
- Tension
- Consciously relax area
- Do not husband enough energy later.
- Not having enough energy for Kill.
- Having trouble falling asleep well.
- Being out of control.

AGGRAVATING POSTURE

**CAUSE**
- Activities involving neck in a flexed (head down)
- Position for prolonged periods
- Heel held forward
- Rounded shoulders
- Shoulders held tightly
- Slouching
- Lower back arched
- Body weight unevenly supported
- Feet too close together

**REMEDY**
- Take a break from this posture
- Perform neck mobilizing exercises
- Hold head up, look straight ahead
- Hold shoulders back comfortably
- Stand straight
- Distribute weight evenly over both feet
- Stand with feet shoulder distance apart

HEADACHE TREATMENT PRINCIPLES

- Proper sleep posture; proper
- Daytime posture
- Frequent muscle stretching
- Movements, hold stretch for 10 seconds
- Paced muscle strengthening
- Scanning/monitoring muscles for tension
- Relaxing them
- Active mind and body
- Regular breaks when reading or using
- The computer
- Shift focus away from pain
- Proper breathing
- Use of proper sunglasses
- Proper nutrition and general exercise
- Take out to replenish your body
- Resume normal activities

TREATMENT COPING PLAN

**TREATMENT**
- Hot shower, massage, light stretching
- Relaxation techniques; breathing, imagery, muscle relaxation, stretching
- Relaxation techniques to help sleep

AGGRAVATING FACTORS
- Sightseeing physical or intellectual effort
- Failure to take medication

SYMPTOMS IN ADDITION TO HEADACHES
- Worsen headache symptoms
- Difficulty in maintaining sleep

TREATMENT
- With doctor’s approval, reduce dose by 50-75% every few days
- Be aware that headaches might get worse a little while medication is being reduced
- If necessary, attend detoxification center (especially for codeine withdrawal)