

Headache Trigger Points

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Information and diagrams from Travell & Simons, Myofascial Pain and Dysfunction

Principles of Headaches from Trigger Points

- Trigger points (TrP) can mimic most kinds of headaches, including migraine, cluster headache, tension headache, and chronic daily headache
- If your headaches are due to TrP, standard headache and migraine medication might not work
- The pain pattern for a specific TrP in a given muscle is similar from person to person and allows us to predict the location of the TrP.
- The TrP is seldom at the location of pain.
- The TrP is always tender, even though you might not have pain at that location.
- The TrP is a ropey band of muscle which has a 'jump response' to palpation – that is, the muscle twitches when pressed.
- There are many neck and scalp muscles that can cause headaches, and many reasons why these muscles might get aggravated by normal daily activities.

Principles for Decreasing Trigger Points

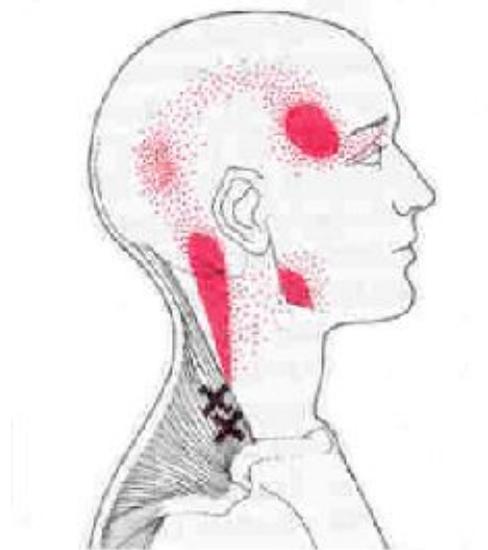
- You need to correct posture, body mechanics and habits that contribute to the TrP. If you do not correct the underlying cause of TrP, they will return and other treatment will not be effective.
- If a TrP is caused by a nerve or joint problem, you have to treat the nerve or joint to manage the TrP.
- Treat the TrP with gentle stretching rather than strengthening with muscle contraction. Stretches must be performed slowly and gently; overly aggressive stretching will also irritate the muscle.
- Rest the muscle with the TrP to allow it to heal, but do not immobilize it. Movement in the pain-free range is important. The correct amount of movement is important – not too much or too little.
- Emotional stress and tension may aggravate a TrP. Again, treating the TrP without addressing the cause will provide temporary relief, at best.
- One TrP may be caused by another (the second is called a 'satellite' TrP). Treating the satellite TrP without treating the underlying TrP will only provide temporary relief.
- Maintain adequate fluid intake, as dehydration aggravates TrP.

■ Trapezius (Shoulder) Muscles

Tension headache type pain over the temples, base of skull at the back of the neck, back and side of neck to behind the ear

- ❖ Neck and upper back pain, but no neck stiffness
- ❖ **Aggravating factors**

- Holding arms up, e.g., typing without forearm support or holding telephone (especially holding phone between ear and shoulder)
- Armrests that are too high, pushing the shoulders up
- Assembly work involving static positions holding arms up
- Tight chest muscles pulling shoulders forward
- Carrying a heavy purse or backpack or wearing a heavy coat
- Holding shoulders up, as with stress and tension
- Whiplash injury
- Bra straps pulling on the shoulders



Prevention

Correct your work space so that arms are supported at proper height
Do not carry heavy purse or backpack; carry backpack on both shoulders
Consciously relax muscles when tense
Correct posture, so that shoulders are not rounded

Sternocleidomastoid Muscle (front and sides of neck)

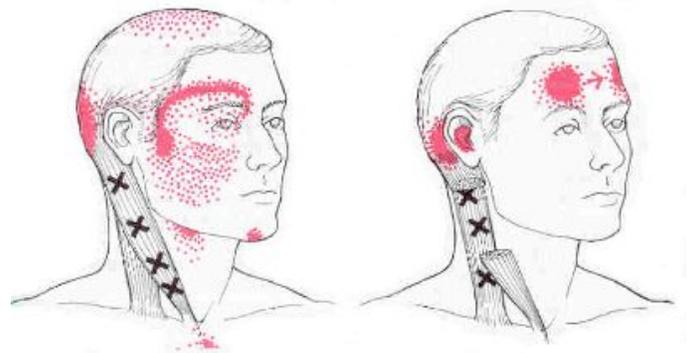
Migraine, tension or cluster headache type pain, may be on one or both sides of the head. Pain located: around or behind the eye, forehead over the eye, back or top of skull, across the cheek

❖ **Other symptoms:**

- Ear ache, ear fullness, ringing in the ear
- Dizziness and balance problems
- Blurred vision, tearing or redness of one eye or drooping of one eyelid
- Sinus pain or congestion on one or both sides.
- Sore throat or dry cough
- Nausea

❖ **Aggravating factors**

- Posture with head forward (chin poking forward)
- Prolonged sitting with head turned to the side (e.g., watching TV or at a computer workstation)
- Sleeping on the back with extra pillows that tilt head forward
- Prolonged tilting head backward (e.g., with overhead work or front-row theater seats)
- Whiplash-type injury
- Rounded shoulders or tight chest muscles
- Using neck muscles for breathing, especially after a chronic cough or asthma
- Holding phone between ear and shoulder



Prevention

Good posture, with shoulders and head back so that the ear is over the shoulder, which is over the hip
Avoid prolonged rotation of your neck and prolonged overhead work
Avoid tilting head when talking on the phone; use speakerphone or headset if you use the phone a lot

Posterior Neck Muscles (Splenius Cervicis & Capitis)

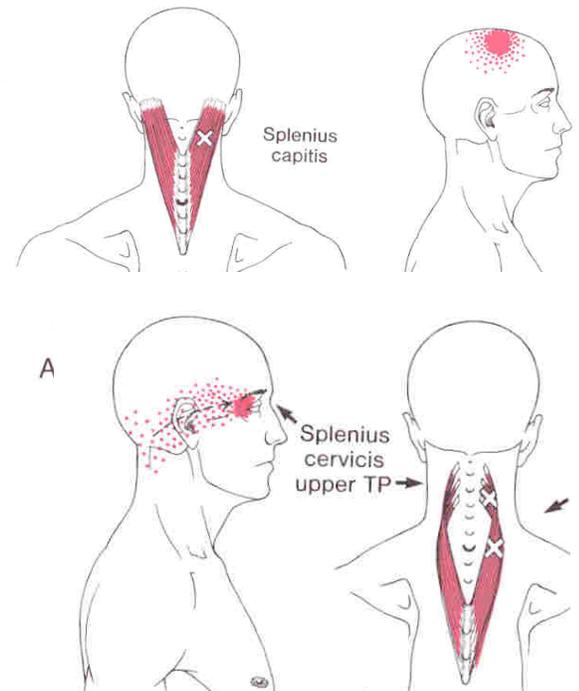
Migraine, tension or cluster headache type pain, on one or both sides of the head. Pain located: behind the eye, over the temples, top of the skull, tight band around the head

❖ Other symptoms

- Blurred vision, possibly in just one eye
- Stiff neck, especially forward and in rotation

❖ Aggravating Factors

- Posture with head forward (chin poking forward)
- Hunched forward position, as with prolonged reading, typing, sewing, or using stationary bicycle
- Poorly fit or prescription glasses
- Whiplash-type injury
- Heavy lifting or pulling (including when using exercise equipment) with head forward or rotated
- Cold air draft, especially when muscles are tired



Prevention

Good posture

Sleep with head in midline, with appropriate pillow support

Good workstation, so neck does not need to be twisted or strained

Keeping neck warm, especially when fatigued

Do not swing the head around in circles to stretch or relax the neck

Deep Neck Muscles (Semispinalis, Multifidi, Rotatores)

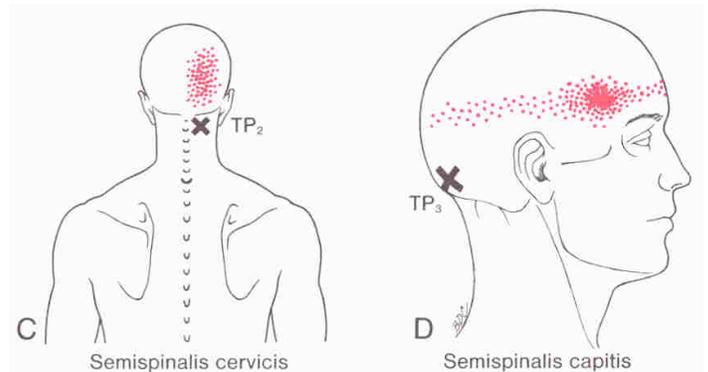
Tension-type headache on one or both sides. Pain located: over the temple, as a band circling the head, over the eye, at the back of the head

❖ Other symptoms

- Neck pain and stiffness
- Pain at the back of the head resting head on pillow
- Numbness, tingling or burning pain over the base of the scalp

❖ Aggravating factors

- Injury, especially motor vehicle accident
- Forward head posture, rounded shoulders
- Prolonged neck flexion, as when tilting head to read, especially when using glasses or bifocals
- Tight collars in clothing or coats



Prevention

Good postural alignment, using reading stand to hold work at eye level

Alignment of computer monitor to prevent looking down

Eye glasses with correct focal length and lens alignment

Keep neck muscles warm

L.Russeck; Clarkson University

Masseter (Jaw) Muscles

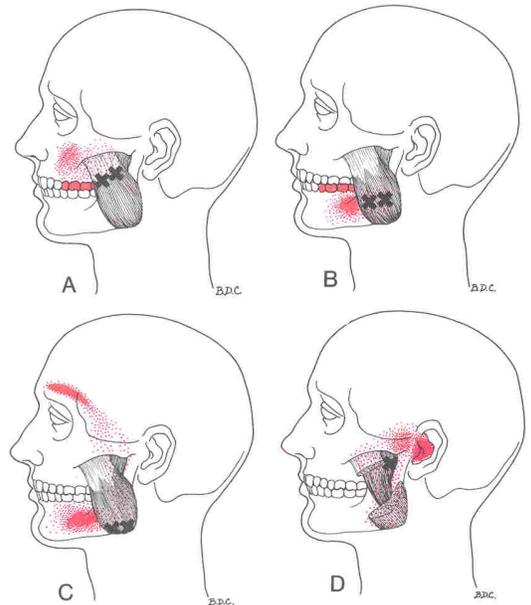
Tension headache type pain can be on one or both sides. Pain located: over eyebrow, deep in the ear, over cheek and jaws

❖ Other symptoms:

- Limited range of mouth-opening
- Pain in the upper and lower molar teeth
- Teeth hypersensitive to pressure and temperature
- Ringing in one ear (tinnitus), earache
- Temporomandibular (jaw) pain

❖ Aggravating factors:

- Clenching or grinding the teeth, or teeth not meeting properly
- Chewing: constant gum chewing, forceful biting, chewing pens
- Forward head posture
- Mouth breathing (as with sinus congestion)
- Emotional tension
- Overstretch during dental procedure; excessive jaw mobility



Prevention

Correct forward head posture

Correct mouth position, with tongue on roof of mouth, teeth slightly apart

Avoid excessive chewing, clenching teeth, using a mouth guard to prevent grinding teeth at night

Correct dental problems that prevent proper closing of teeth

Decrease muscle tension due to stress

Temporalis (Temple) Muscles

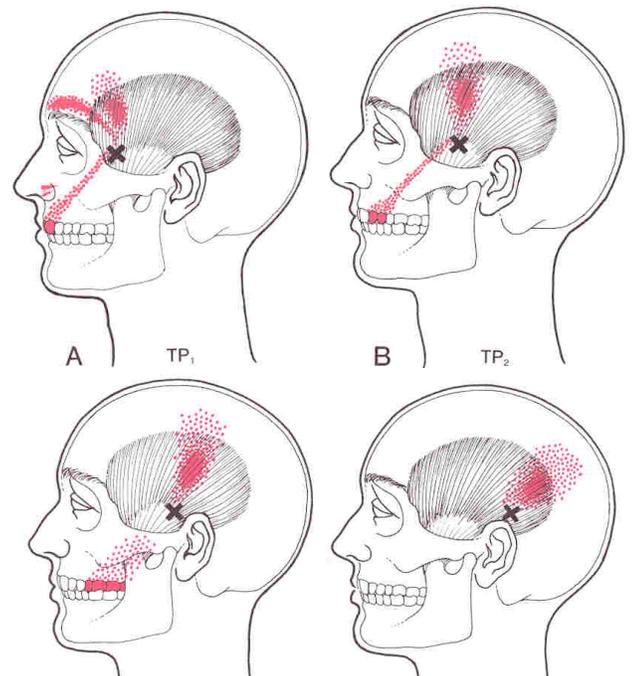
Tension type headache on one or both sides of the head. Pain located: over the temple, over eyebrow, behind ear

❖ Other symptoms:

- Pain in upper teeth; sensitivity to hot/cold
- Temporomandibular (jaw) joint pain
- Inability to open jaw far enough to fit 2 knuckles in
- Teeth do not seem to meet correctly

❖ Aggravating factors

- Long periods of holding jaw in one position, either open or closed, as during dental work
- Clenching jaw (bruxism), grinding teeth at night, chewing gum, or temporomandibular problems
- Muscle tension from stress
- Exposure to cold draft when muscle fatigued
- Posture with head forward
- Trigger points in other muscles, such as sternocleidomastoid or upper trapezius
- Neck traction using a chin strap



Prevention

Same as for masseter muscle, above

Information and diagrams from Travell & Simons, Myofascial Pain and Dysfunction. Williams & Wilkins; Baltimore; some information comes from Headley, When Movement Hurts.

Suboccipital muscles (base of the skull)

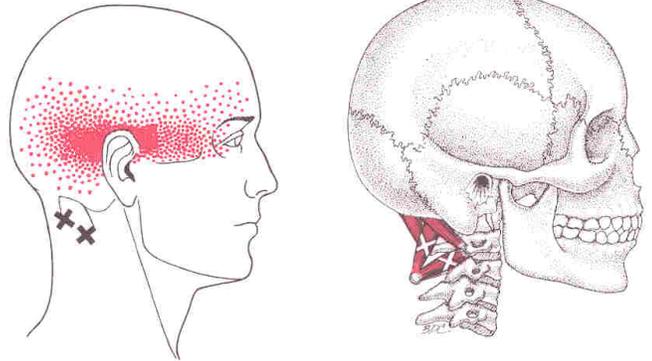
Tension-type headache on one or both sides. Pain typically vaguely distributed over the back of the head, over the temple to the eye

❖ Other symptoms

- Pain over posterior head with weight of occiput on pillow
- Limited head rotation, e.g., trouble turning head to see in 'blind spot' while driving

❖ Aggravating factors

- Posture of forward head and upper cervical extension
- Use of trifocals or poorly fitting glasses or uncorrected nearsightedness
- Prolonged turning of head to one side or looking up
- Chill to back of neck
- Trauma to head or neck
- Dysfunction of joints in the upper vertebral levels



Prevention

Correct posture

Correct eyeglasses for fit and prescription

Good workstation, so neck does not need to be twisted or strained

Keeping neck warm, especially when fatigued

Occipitofrontalis muscles (scalp)

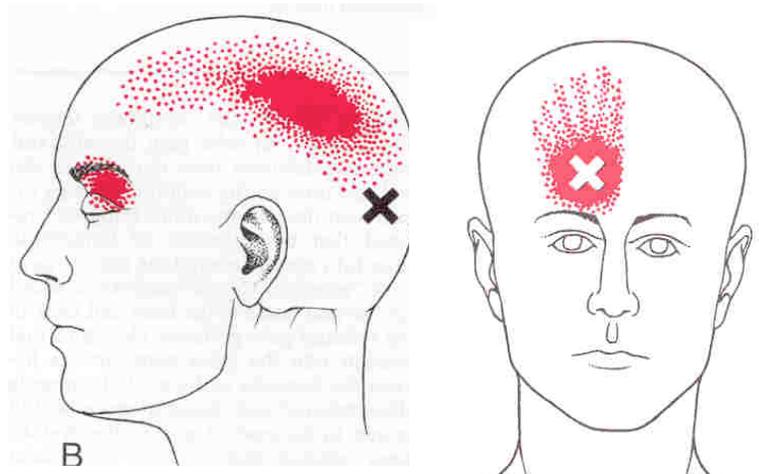
Migraine-type headache on one or both sides. Pain located: over forehead, scalp, behind eye

❖ Other symptoms

- Stabbing pain behind the eye
- Hypersensitivity of posterior scalp making you unable to put back of head on pillow

❖ Aggravating factors

- TrP in SCM or posterior neck muscles
- Muscle overuse from stress or excessive facial expression
- Prolonged wrinkled forehead
- Visual problems causing squinting



Prevention

Correct visual problems, use good lighting

Learn stress management techniques to decrease stress