

Ear Pain and Tinnitus

IMPORTANT:

If you have ear pain or tinnitus you should request a full ear examination before considering physiotherapy.

If all the tests and examinations reveal that your ears are in good health and there is no obvious reason for your symptoms, it is possible they are arising from joint stiffness or muscle tension around the neck (*Cervical Spine*) or jaw (*Temporomandibular Joint*). Tinnitus arising from these structures is referred to as *Somatosensory Tinnitus*.

NOTE:

Pulsating tinnitus is a little different to other types of tinnitus. Please read the last page of this presentation for more information.



Muscle Tension

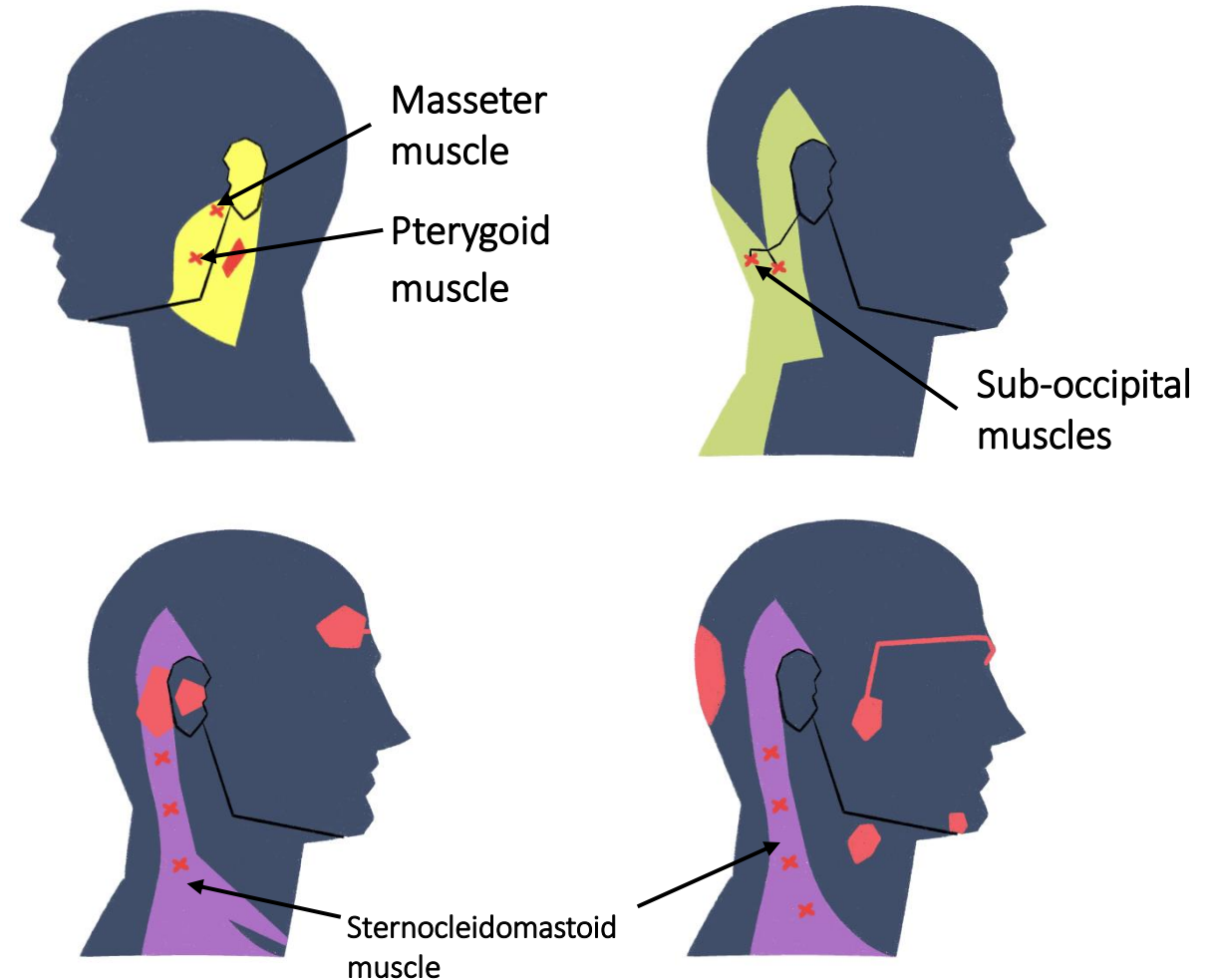
Releasing trigger points and improving function in the relevant muscles can significantly reduce both pain and tinnitus sensation.

Several neck and jaw muscles can refer **pain** to the ear. Dysfunction in these muscles may also influence **tinnitus**.

TREATMENT:

You therapist should assess the function of all muscles potentially contributing to your symptoms, and offer a combination of manual therapy and home exercises to manage this.

NOTE: The diagrams show trigger points (indicated by red crosses) and pain referral patterns for a selection of the muscles that could be contributing to your symptoms.



Cervical Spine

Nerves emerging from between the 2nd and 3rd cervical vertebrae provide sensation around the ear, back of head and neck .

Stiffness or dysfunction of these joints can affect transmission along these nerves, potentially causing *pain* in the areas shaded yellow and blue on this chart.

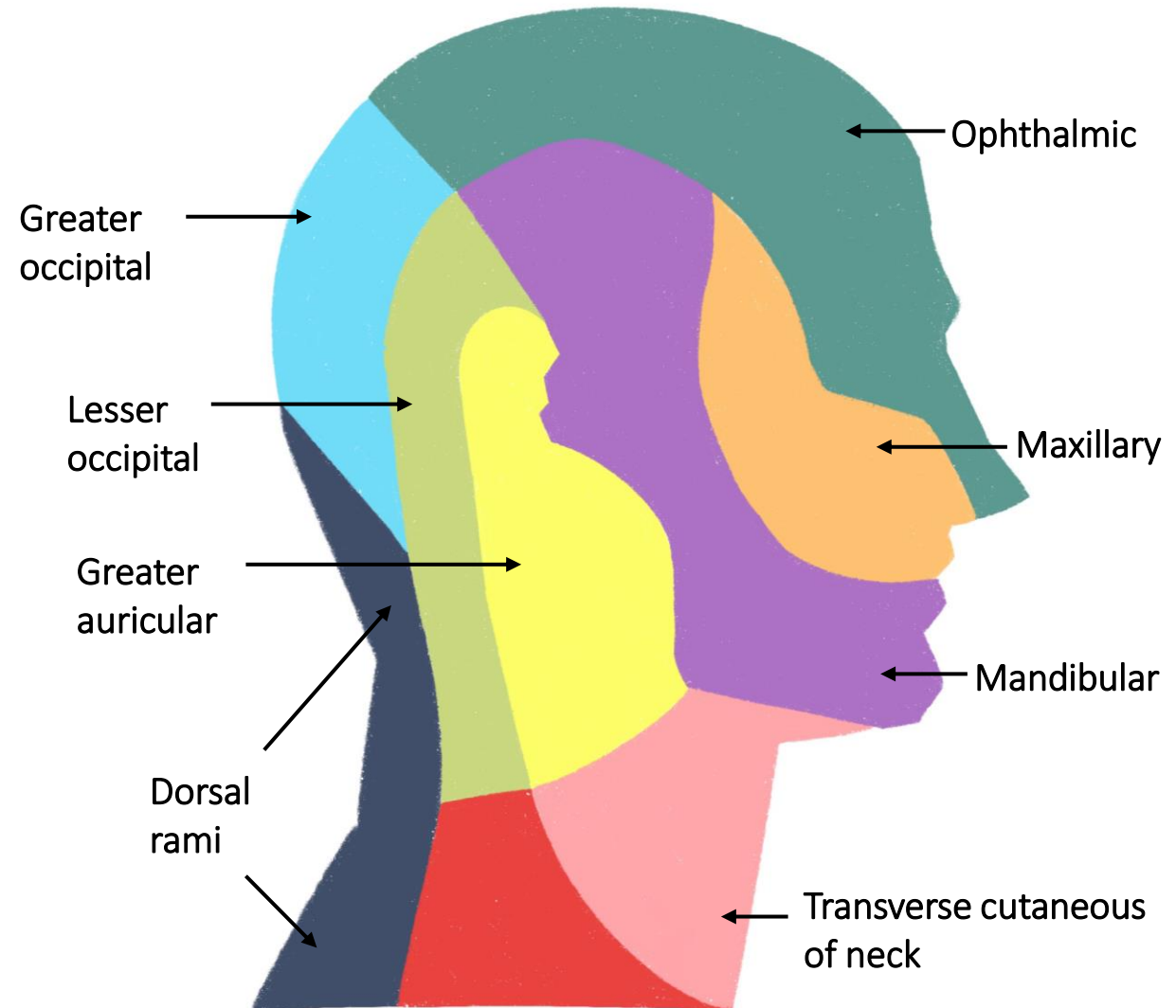
By it's neural connections to the ear, dysfunctional joint movements and pain can also lead to a type of *tinnitus* called 'cervicogenic somatosensory tinnitus', which, put simply, means tinnitus caused by sensory input from the cervical spine.

NOTE: Temporomandibular joint:

Dysfunction of the temporomandibular joint (TMD) may also cause ear pain or tinnitus via similar pathways to the cervical spine. Download my file see how physiotherapy can help with this.

TREATMENT:

Manual therapy, along with neck exercises to gain better movement and control, can help to relieve symptoms.



Tinnitus: How do I know if Physiotherapy can help?

Diagnostic criteria have recently been agreed for somatosensory tinnitus*. If you can answer 'yes' to at least one question from EACH of the following 3 criteria (*see next slides*), there is a good chance that physiotherapy can help you to manage your tinnitus.

From: <http://europepmc.org/article/MED/30213235>

Click on the video link below to see how you can test yourself:

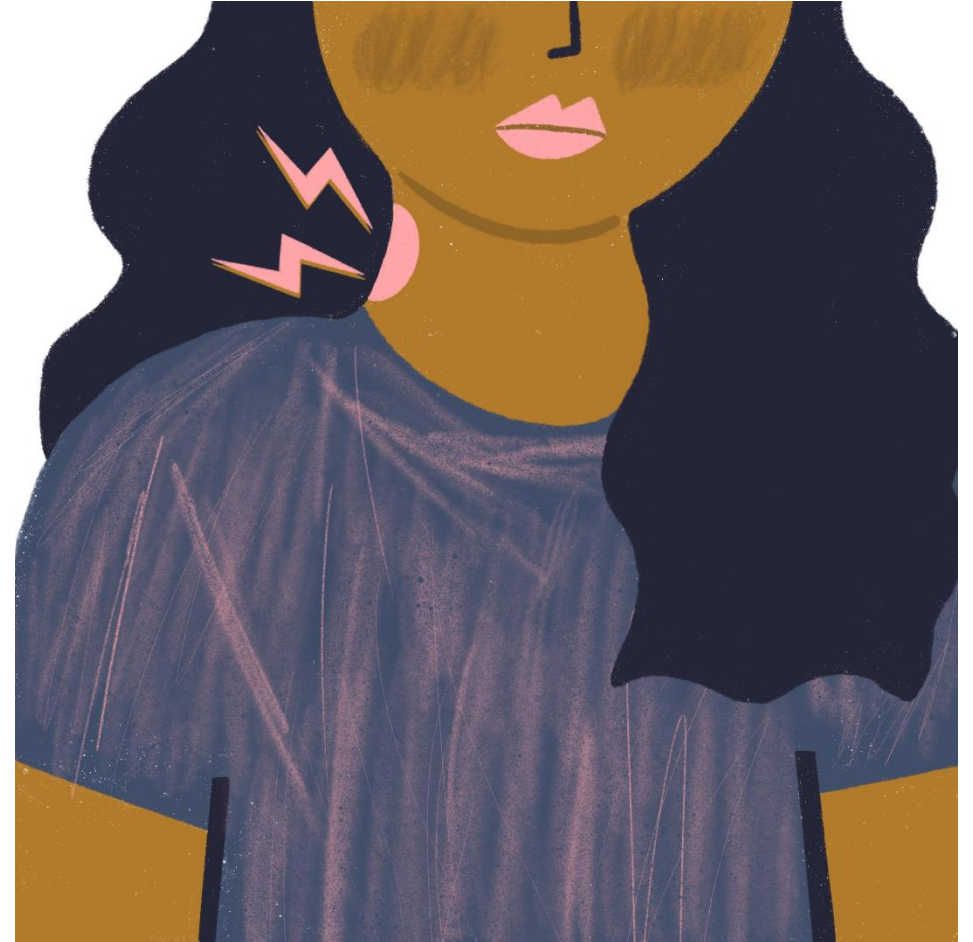
<https://www.youtube.com/watch?v=4sZxJ2s0NAI&feature=youtu.be>



1: Tinnitus changes with certain activity

If you answer 'yes' to any of the following, this strongly suggests a somatosensory influence on your tinnitus:

- Movement of your head, jaw or eyes can change the volume or pitch of your tinnitus
- Pressure on trigger points in the muscles of your jaw or neck can change the volume or pitch of your tinnitus
- Resisted neck exercises alter the volume or pitch of your tinnitus.



2: Tinnitus characteristics

If any of the following characteristics are present, this strongly suggests a somatosensory influence on your tinnitus:

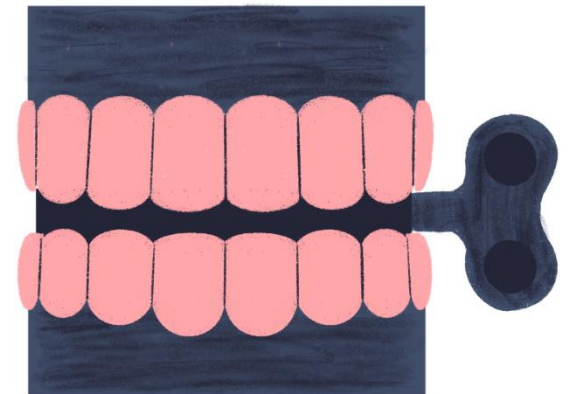
- Tinnitus and neck or jaw pain complaints appeared simultaneously
- Tinnitus and neck/jaw pain symptoms aggravate simultaneously
- Tinnitus was preceded by a head or neck trauma
- Tinnitus increases during bad postures
- One sided tinnitus that is not accounted for by your audiogram, and that varies in volume or pitch



3: Symptoms that accompany tinnitus

If any of the following symptoms are present, this strongly suggests a somatosensory influence on your tinnitus:

- Tinnitus is accompanied by frequent pain in the cervical spine, head or shoulder girdle
- Tinnitus is accompanied by tenderness in trigger points of the jaw or neck muscles.
- Tinnitus is accompanied by increased muscle tension in the muscles at the base of your skull
- Tinnitus is accompanied by increased muscle tension in the muscles at the back of your neck
- Tinnitus is accompanied by temporomandibular disorders
- Tinnitus is accompanied by teeth clenching or bruxism



Tinnitus that pulses or whooshes in time with the heartbeat

This kind of tinnitus is known as *PULSATILE TINNITUS*. This is most often related to issues of blood flow in the blood vessels of the ear or cervical spine.

It is possible that some of the self testing that I covered in the video may change your tinnitus but this may be due to a change in blood pressure with a sustained muscle contraction, or the mechanical effect on your blood vessels as you turn your head in certain directions, rather than due to a musculoskeletal issue.

If you have pulsatile tinnitus, you should discuss this with your GP before trying physiotherapy. You may require blood tests, or referral for vascular assessment.



What next?

If you have answered 'yes' to at least one of these statements, please get in touch – I may be able to help:

- **My website:**
<https://mobilejointsphysiotherapy.com/>
- **Call me on:** [07747 811335](tel:07747811335)
- **Additional information on Tinnitus:**
<https://www.tinnitus.org.uk/Pages/>

