

In this section, we are going to explain why cranial strains are not a 100% reliable and good method to determine asymmetries. Do they work sometimes? Yes. Do they work ALL the time? Nope. Is it extremely confusing for most people? Yes.

Initially, when we started talking about cranial strains, we thought it was a great scientific method to explain asymmetry patterns. As we have started doing consultations, we realized through looking at over 1000+ people's pictures and structures, that cranial strains are not all cut and dry. The reason for this, is that many people have overlapping strains, there are multiple ways a head can tilt, jaws can reposition, and muscles can compensate, ESPECIALLY, when you throw in something like braces or retainers. What we saw, is that most of the time, people with braces exhibit an initial cranial strain that perhaps they were born with, and then as they get braces or retainers, the orthodontist moves teeth in an occlusion that's not straight with the jaws. Their method of determining where 'straight' is, is completely arbitrary, and has no reference to the jaws or the head or neck. To add in curve of spee into the mix, a lot of the times they also flatten the curve of spee unevenly, basically contracting the jaws in the back unevenly. This greatly reduces stability in the body, and over time this contributes to total biomechanical collapse.

A better way, in our opinion, to determine asymmetry at home, is through stacking the cranium. This levels the eyes, the lower jaw, and with twisting and turning the head while turning and twisting the lower jaw around to find new positions, you can achieve some pretty good symmetry. The REASON the asymmetry is happening, as in the root cause, is this curve of spee issue, and the jaws contracting unevenly in the back retromolar area. The head tilt, twist, and therefore later muscle compensations, are the direct result of that curve of spee flattening, or flattening unevenly.

You know when you take a selfie, or look in the mirror, you see yourself as more symmetrical than if someone else takes a photo of you? Try and turn and twist your head in that position, and then move the lower jaw around to find perfect symmetry, which likely already exists within your face. Now you'll see how this works. It is not that your bones or face developed wrong, it is that the body outside of it is twisting and compensating, so that the skull basically doesn't just crush the spinal cord and kill you. This is why stretching the jaws, supporting the cranium with a splint or mouth guard, expanding the mouth, and habitual stretching, are all very very important to restore nature's intended beauty within yourself.

The best part about all of this is, you can simply try it out and see how it works!

Here are some techniques:

Head tilting:

Tilting the head to make the eyes level. Ie: if one eye is higher, tilt the head in the direction of that eye, so that it is no longer higher up on the face.

Head twisting:

If one side of your face looks fuller and more forward, simply rotate your head so that that side of the face is more set back.

Jaw positioning:

After this, you want to position your jaw in a way that lines up with the new cranial position, so you can achieve symmetry.

- 1) Lateral shifting
- 2) Forward Twisting

Lateral shifting refers to just moving your jaw side to side. Play around with this and see which one yields a more balanced face

Forward twisting. This one is a little bit more complicated, as it has a lateral and forward component to the puzzle. So first shift laterally to see which way the jaw needs to swing to achieve more symmetry, THEN attempt to move one side more forward, so that the chin is also symmetrical in this case.

More than likely, a lot of jaw asymmetries can also simply be solved with a simple head twist and tilt.

Now after you have achieved symmetry, the hard part is retraining the muscles and visual field to fit this position. This has to include body work such as neck traction, stretching tighter neck muscles, gaining mobility, stretching the whole body and basically manually unwinding it.

For example, a lot of people with lateral strain, will also have one side of the body be more forward than the other. They might also have a more compressed diaphragm, or rounded shoulders, hiked hip, etc on that side of the body, where the face is more forward/fuller as well.

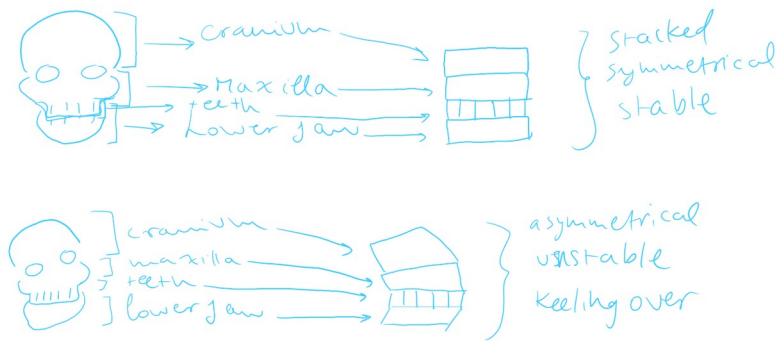
Stretching all of the body's muscles that yield in asymmetry of the body, also have an effect on the face as well, while working with the face has an effect on the body as well. I personally think this primarily has to be because of visual cues about spacial awareness relating back to body cues in relation to tightness. So for example, if your eyes are used to having to look left a lot, eventually your body follows. Ie: people who play tennis and only play forehand.

The opposite is true as well, if your body has tightness in it, causing you to turn left, then the visual field will follow, and think of left, as the new straight.

So, while it takes a bit of time to untrain this, it is possible. We unfortunately, don't have a guide for it, but you can think of it like how stacking the cranium would have a ripple effect on your

body through walking, running, thinking, etc. as you are more and more able to move around in this new head position. If your head is cocked to the left, you shouldn't just sit and train your muscles to have it cocked to the right, as there's not really a good way to know when things will be perfectly center. It's important to stack the cranium as often as possible and try and move around in that new cranial position, so that the visual field can adjust, and the body can remodel.

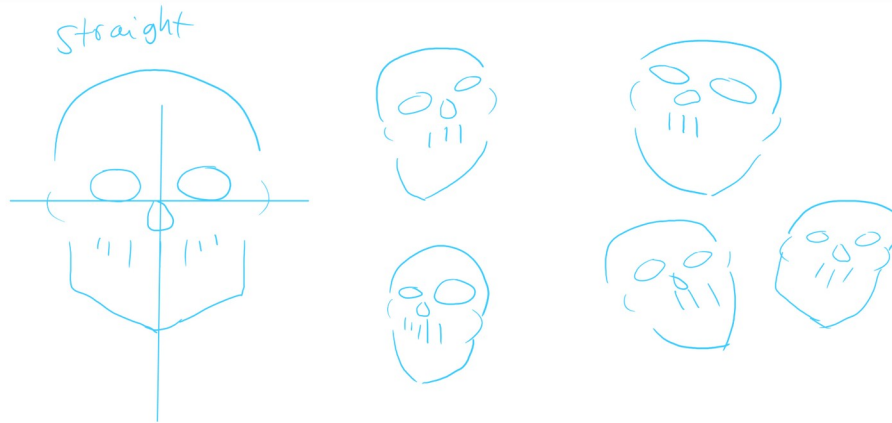
Skull Mechanics



Just purely from a physics standpoint, which structure is going to withstand wind, earthquakes, time and gravity? Probably the one that's meticulously stacked. This is the same with craniums. And the soft tissue plays a huge role in this process. Usually, the 'worse' side has more muscle compensations to keep the structure upright. Now, imagine what this can do in terms of muscle compensation for your entire body? Possibly which organs become more compressed than others?

It's kind of like a wobbly table, with one leg being shorter than the rest. The table leg in this scenario is our teeth! So you can stack books under the table, to make it even, stand strong, and not be wobbly anymore. In our case, we can use a flat bite splint, or a silicone mouth guard to balance the skull. Be careful with bite splints though, as they don't always automatically center the skull if they are indexed, as in they have teeth marks. You have to make sure it's a FLAT bite splint. Or even more convenient is a flat plane mouth guard like Reviv or Myobrace.

Just imagine how many different directions the head and jaw can tilt and twist:



The foramen magnum, is the little hole in the underside of your skull that connects to the cervical spine. That's also where your brain stem is roughly :) So you can imagine how function can impede by compressing that area. This is why you experience positive neurological effects after raising curve of spine and balancing your cranium correctly on your cervical spine. To do this, you can put your hands underneath your skull in the occiput area, and play around with twisting and tilting your head back and forth, left and right, so that you can get an equal amount of 'skull' in each of your hands. Then at the same time feel your lower jaw with your thumbs and try and balance that together with your cranium.

This is a good exercise to see where your neck is tight, the mobility of your jaw, and how it wants to balance due to muscle tension.



This may or may not teach you something about your body, but hopefully it gets you a good idea of how the lower jaw balances the skull. Now imagine if the curve of spine, ie the ligaments that hinge open the jaw, is artificially flattened and contracted. Those ligaments connect all throughout the face and when contracted or displaced, it can affect your whole face and function.

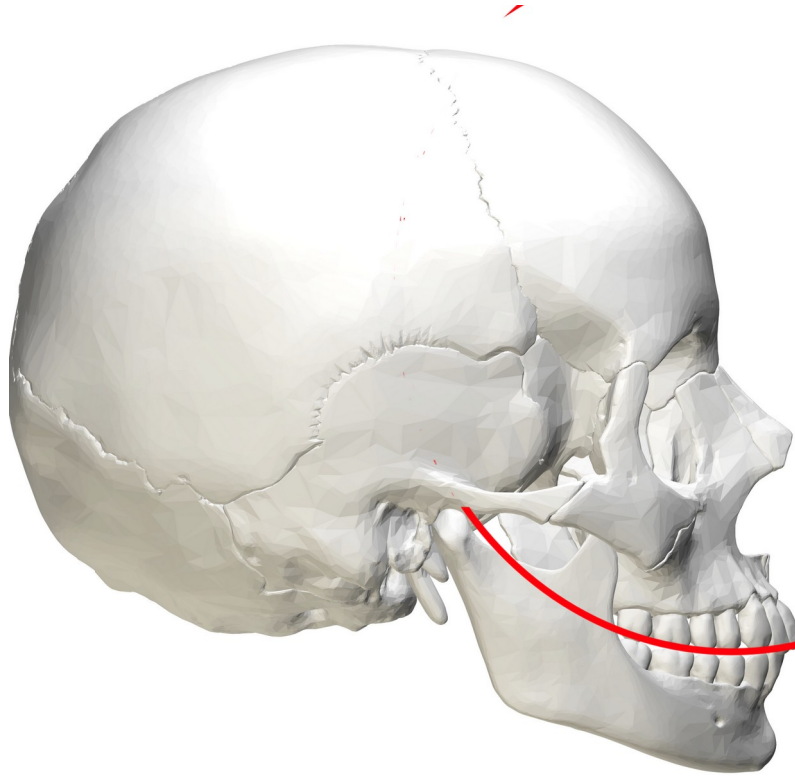
Place your 4 fingers under the occiput area of the skull, then your thumb under your jaw. Lift it up gently and try and balance your head and jaw in a way where equal weight is applied to both

hands. You can take a video of yourself doing this to help too. Then, try and center your jaw and head according to cranium stacking, and see how much weight each of your hands bear now. I'd be curious to hear how this works out for you and what you feel.

Curve of Spee

Curve of spee is arguably one of the most important pieces to this puzzle so far, and I thank Ken Leaver and Marcello for introducing this idea. I heard about it from Ken Leaver, and it changed my ENTIRE world. I was set on cranial strains up until learning this piece of information and how CRUCIAL it is to fixing your biomechanics.

Curve of spee is the line you draw on your side profile, tracing your occlusion up to the ear.



This is a natural curvature found in humans, and it is imperative in balancing the skull on the cervical spine. This is why a lot of people after braces, get a hunchback, bad posture, forward head posture, or scoliosis after braces, or in old age. Some people are born with it too, which likely has something to do with the birthing process or being compressed asymmetrically in a compensated mother within the womb. These postural issues can be traced back to the flattening of this curve of spee, and you have to remember, we technically have 2 curves of spee.

If one side of the curve of spee is flatter than the other, this equals scoliosis. If they're both equally flat, you get forward head posture and kyphosis. To raise the curve of spee back to it's natural balanced inclination, you have to do a couple of things:

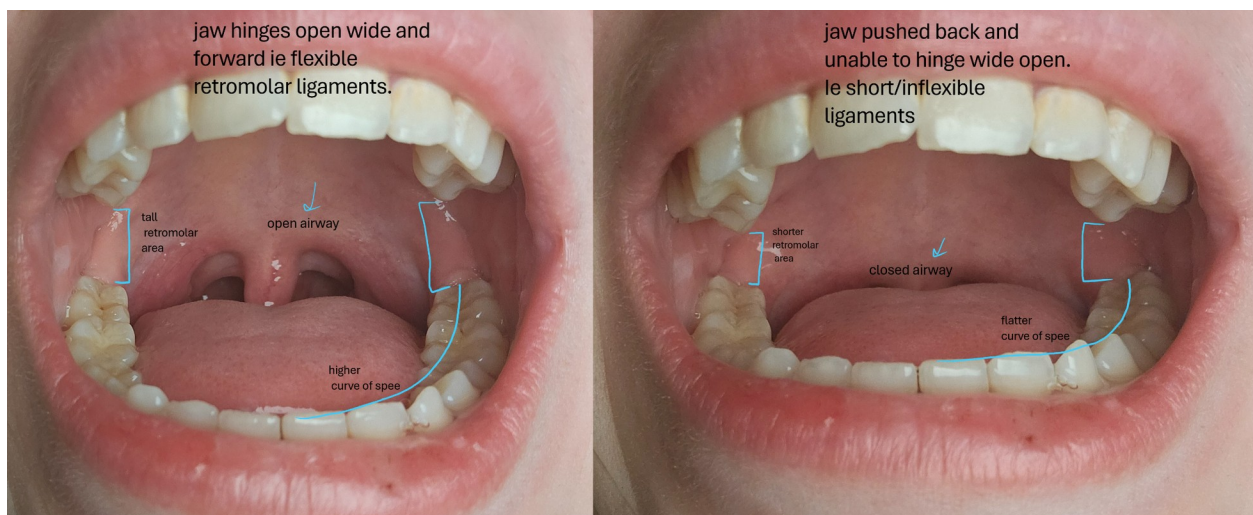
- 1) Stretch your entire body like it's nobody's business. EVERY square inch must be FULLY mobile and flexible
- 2) Keep the curve of spee high at night via a flat plane mouth guard. At night is when this curve closes back up again.
- 3) Retromolar area stretches are a bonus, but they speed up the process in our opinion.
- 4) Neck traction and stretching the neck so that the skull isn't pulled down or forwards.

The retromolar area (the area retro to the molars, where your jaw hinges open behind the molars) houses a lot of ligaments that connect the maxilla, mandible and sphenoid together, amongst other bones. So if this area is artificially contracted and stuck in a closed and flat position, it

essentially zip ties the mouth shut from the back, and causes all sorts of balance, symmetry, biomechanical and psychological issues. Imagine putting a muzzle on a dog basically. What tends to happen when a dogs mouth is physically held shut? Well, they tend to not bark. Humans however, would be too smart to just willy nilly go get our mouth zip tied shut, so they had to do it from the back of the mouth. This is why people lose their voice, or get muffled voices after braces, and why they gain their voice back after they open that area back up again. Singers know this, that if you habitually keep your mouth shut while singing, nothing really comes out, vs, when you hang your jaw open to sing, all of a sudden you get a large projection of sound. Now imagine that with braces, the back of the mouth is artificially compressed and pulled down. Not great for our physiology, to say the least.

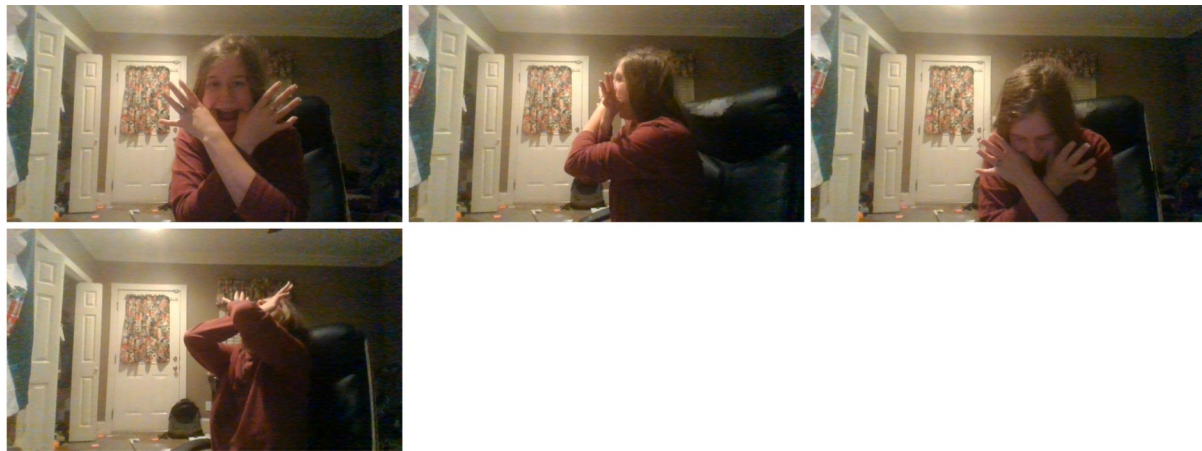
It's the difference between talking with your mouth closed, and talking with your mouth open. This is not to say that orthodontists, or even the people developing their curriculum in the first place, know this. What i've realized based on looking into orthodontic curricula, as well as speaking to multiple orthodontists, reading studies by orthodontists and maxillofacial surgeons, is that they, literally, have NO IDEA what they are talking about. The only 'dentist' I would actually trust would be the TMJ dentist Dr. Brendan Stack, who unfortunately has passed away. He realized that with this curve of spee being flat, that it causes a whole host of neurological issues, and by creating flat splints for his patients, he was able to reverse Parkinson's disease, Tourette's syndrome, and even got a girl out of a wheelchair. This man was extremely kind, sweet and genuinely wanted to help people. You can just tell by the way he interacts with his patients, and of course, his work. However, I believe I read somewhere that his family unfortunately did not treat him so kindly. So hopefully we can remember his name and wish him the best in the afterlife, because I really genuinely think more people need to know more about his work and his contributions to humanity are HUGE.

To visually drive this point home, here is a mouth.



Imagine the retromolar area being really tight, vs very flexible. Well, those mechanics, whether your jaw opens wide or doesn't, is a huge piece of the puzzle to widening, lengthening, and basically expanding the entire skull. There are a multitude of ligaments back there in that retromolar area, that connect your facial bones together. So, if they are tight, like a hamstring would be, it impedes function of the mouth, and aesthetics.

So how do you stretch it out? Well, there's 2 ways, and I recommend you do both. One way is to reach back there in the area highlighted as the retromolar area in the above picture, and stretch it up, down, and sideways, while opening your jaw. You can use gravity to your advantage and use the weight of your skull to add extra stretch, if you prefer. Here's how I look doing it:



Obviously, one of the more flattering photos of myself. :]

I do these stretches whenever I need a boost in mental clarity, or when I feel like my posture is slouching. It's relatively easy to do in public too, if you don't do both hands at the same time, and if you have long hair, that's a nice little curtain for it too. It basically acts the same way as the mouth guard, by manually raising the Curve of Spee.

The second option to stretching this area, and it's a bit more passive, is wearing a flat plane mouth guard at night, to keep that stretch open. You can also wear it a few hours during the day, or do these stretches for a total of 15-20 minutes per day, either way is fine.



Now imagine all the different types of ligaments connected throughout the skull and how any tightness of these ligaments can lead to asymmetry, how it would impede function of the skull, balance, etc.

The sphenomandibular ligament is a ligament that connects the sphenoid bone to the mandible (lower jaw). It is located in the region of the temporomandibular joint (TMJ), which involves several other ligaments. Here is a list of ligaments that are nearby or associated with the sphenomandibular ligament:

1. Temporomandibular Ligament (Lateral Ligament)

- This ligament is one of the main stabilizers of the TMJ, running from the zygomatic arch of the temporal bone to the mandibular neck. It helps prevent posterior displacement of the mandible.

2. Stylomandibular Ligament

- This ligament runs from the styloid process of the temporal bone to the angle of the mandible. It helps limit excessive movement of the mandible and provides support to the TMJ.

3. Temporalis Muscle Tendon

- While not a ligament, the tendon of the temporalis muscle, located near the sphenomandibular ligament, can be considered a functional contributor to the

area, as it helps with jaw movement.

4. Sphenopalatine Ligament (indirectly near the area)

- This ligament connects the sphenoid bone to the palatine bone, located somewhat near the sphenomandibular ligament, though not directly related to the TMJ.

This is why cranial balancing is important and stretching out the ligaments in the retromolar area, as these are all connected in holding up jaw position and head position. These ligaments are the key to stretching out the skull and decompressing it from tension, and sort of ‘uncrumpling’ it.

Stretching

In order to relieve muscle tension it's necessary to stretch out facial muscles multiple times a day.

1. PUFFERFISH STRETCH

Fill your mouth with as much air as possible.

Direct the air under your cheeks, upper and lower lip and feel the muscles stretch.

Keep for a couple of minutes and repeat a few times a day.



Jaw relaxation

2. CHEWING MUSCLES outside

Open your mouth a little bit and massage your chewing muscles from top to bottom Make sure the pressure is firm and deep, but do not hurt yourself

Do the massage for 1 minute on each side.



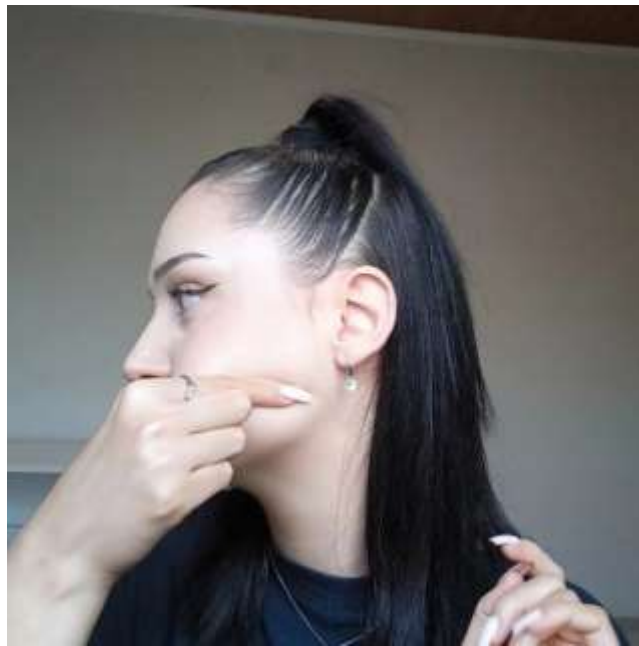
3. CHEWING MUSCLES inside

Place the thumb inside of your mouth and the index finger on the outside of your cheek

Press your teeth together in order to contract the chewing muscle so you can relocate your fingers if needed

Open your mouth to relax the muscles again

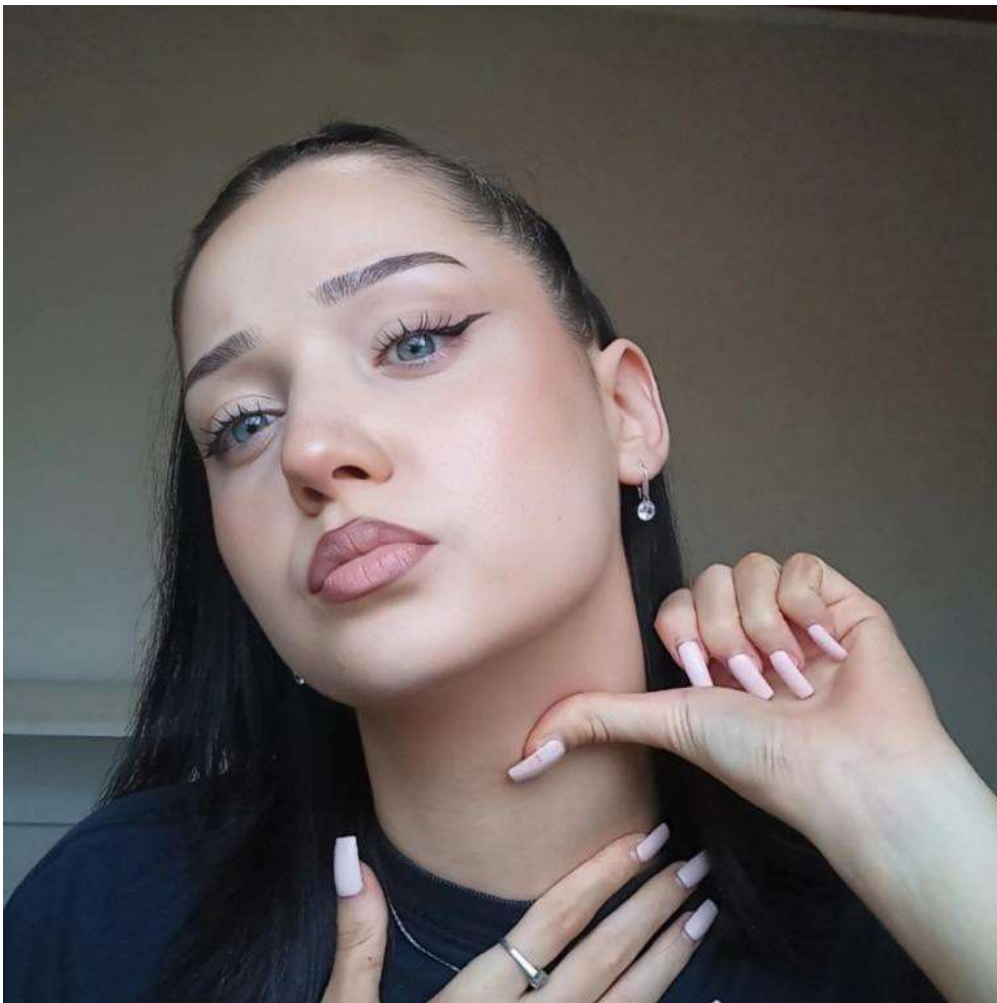
Deep massage the muscle for 1 minute on each side.



4. NECK

Put some oil or cream on your neck so it is easier to deep massage it. Massage the neck from both directions (up and down) with your thumb.

You can adjust this massage to your preferences, BUT make sure to relax the neck muscles daily.



5. STERNOCLEIDOMASTOID MASSAGE

Turn your head to your side to find the muscle Grab it and deep massage it

Slightly lean your head to the opposite side to deep massage it

Repeat on the other side.



6. JAWLINE STRETCH

Place both sides of your jawline between the index and middle fingers. Slide them to the opposite sides.



7. NECK TRACTION

Straighten your neck and place your fingers on the back of your head, thumbs under the mandible.

Apply upwards pressure and hold for 30 seconds to a minute

Repeat a couple of times a day..



8. RETROMOLAR STRETCH

Place your thumb inside your mouth, resting on the gum behind the last molar. Press gently but firmly on the retromolar pad, feeling for tender spots.

Move your thumb in small circular motions for 30 seconds to 1 minute. Pull slightly outward to stretch the tissues if they feel tight.

