

## **Accessing the Healing Power of the Vagus Nerves by Stanley Rosenberg**

Optimal health is possible only when we have a well-functioning ventral branch of the vagus nerve. The activities that will be described or shown in videos that should help to move from a state of either chronic spinal sympathetic chain activity (stress) or dorsal vagal activity (shutdown) to a state of social engagement.

These exercises can also be used to prevent problems in the autonomic nervous system from developing, and to maintain a general level of well-being.

When you do these for the first time, start a simple journal. Write down any symptoms or issues that bother you (or highlight/add to the attached list).

Note how often the symptoms is there: Examples - all the time, every morning, every night, once a week, once a month.

Also note how strong the symptoms are. You can do a number system or based on the following:

1. They bother me, but I get on with my day
2. They require medication/supplements
3. They are so strong I can't work or do anything.
4. I can't sleep
5. I can't get out of bed in the am

Look back as time goes and see if these have improved.

I also like to follow MSQ scores - before you start, and then every 2-4 weeks.

More information on Polyvagal Theory and the Vagus Nerve:

Porges polyvagal explained: <https://www.youtube.com/watch?v=OeokFxnHGQo>

**Basic Exercise:**

<https://www.youtube.com/watch?v=YW3pDMFT2ul>

<https://www.youtube.com/watch?v=rbowly6kONY>

The goal of this exercise is to enhance social engagement. It repositions the atlas (C1) and the axis (C2) and increases mobility in the neck and entire spine. It increase blood flow to the brainstem, where the five cranial nerves necessary for social engagement originate. This affects the ventral branch of the vagus nerve (CNX), as well as CN V,VII, IX, XI.

Before and after doing the basic exercise - evaluate the relative freedom of movement of your head and neck. Rotate to the right as far as it goes comfortably. Then come back to center, pause and rotate to the left. How far can you rotate? Is there pain or stiffness? After the exercise, check again and see if ROM increases or pain/stiffness improves.

The first few times you do this - lie on your back. After you are familiar with the exercise, you can do it sitting on a chair, standing, or lying on your back.

1. Lying comfortably on your back, weave the finger of one hand together with the other
2. Put your hands behind the back of your head, with the weight of your head resting comfortably on your interwoven fingers. You should feel the hardness of your cranium with your fingers, and you should feel the bones of your fingers on the back of your head.
3. Keeping your head in place, look to the right, moving only your eyes, as far as you comfortably can. Keep looking without moving your head.
4. After a short period of time - 30-60 seconds - you will swallow, yawn or sigh. This is a sign of relaxation of your autonomic nervous system. (a sigh is an inbreath followed by another inbreath - before breathing out).
5. Bring your eyes to looking straight ahead.
6. Leave your hands in place, keep head still Move eyes to the left.
7. Hold your eyes until you notice a sigh, yawn or swallow.

You can then take your hands away and sit up. Notice how you feel. Any increase in mobility, breathing improvement or anything else?

If you get dizzy when you sit up or stand - it is due to relaxation and lower BP. Normal and can take a minute or two to recalibrate.

Rotation of C1 on C2 can put pressure on the vertebral artery, which supplies the frontal lobes and the brainstem. One negative thought can bring C1 and C2 out of joint, affecting our posture and physiology. (This is a fight or flight mechanism). It occurs quickly, but takes longer to settle back down. There are 10 small muscles attached to C1/C2 - which can pull it out of place. When we lay with the pressure on the back of the head - the pressure stimulates the occipital nerves, causing these muscles to relax and come back into balance. We move the eyes because these are connected neurologically to the suboccipital muscles. This will be an ongoing process. Do this frequently, or as needed.

## **Neurofascial Release Technique (hands on healing similar to the Basic Exercise)**

<https://www.youtube.com/watch?v=CJKe15zSFyE>

Takes less than 5 minutes to perform and is highly effective. Use it on yourself, or treat another. Can use instead of the basic exercise or combine them! (Great with those that can't follow the directions).

You need to stimulate reflexes in the nerves in the loose connective tissue just under the skin over the base of the skull. This balances the levels of tension in the small muscles between the base of the skull and the vertebrae in the neck.

The key to success with the neurofascial release technique is getting the skin to slide, and stopping at the first sign of resistance. Use your fingertips to connect with the skin using the lightest touch imaginable. Then slide the skin a very short distance over the underlying layers of muscles, bones and tendons. This is not massage (which goes deeper to the muscles). This stretches the loose connective tissue just under the skin. (if you want an in depth view of this fascial tissue - <https://www.youtube.com/watch?v=eW0lvOVKDxE>) This connective tissue is rich in proprioceptive nerve endings. When you gently slides the skin a very short distance over the muscles and bones, you create a slight traction in this loose tissue, which is enough to stimulate these nerves. You slide only a short distance, until you feel the very first signs of resistance. (If you are used to massage - you will not use any force like you do for that). If you use unnecessary force and keep pushing past the first sign of resistance, or slide the skin too rapidly, the muscles and ligaments will actually tighten. You won't cause damage, the release will just take longer. The other person may report that they actually don't feel anything - and that is good. As you progress, you will notice palpable improvements in the slide-ability of the skin.

<https://www.youtube.com/watch?v=CJKe15zSFyE> (Video on the technique - instructions also below).

It is easiest to learn if the person is lying on their stomach, so you can see your fingers. Start with one side of the back of the head. (at the base of the occipital bone - discussed in the video above).

1. Push gently at the base of the skull on one side, and feel the hardness of the occipital bone. Test the slide-ability of the skin on one side of the occiput. Gently slide the skin over the bone to the right. Then let it come back to neutral.
2. Then slide the skin to the left, and let it come back to neutral. In which direction was there more resistance?
3. Slide the skin in the direction of greater resistance. Go very slowly, and be ready to stop at the very first sign of resistance. It may only have moved an eighth of an inch or less. Stop there, and hold that position. Continue to feel the resistance. In the pause when you are doing nothing, the person will sigh or swallow and the resistance in the skin will melt away as it releases.
4. When you test again, the skin should slide easily in both directions.
5. Repeat on the other side.

### **Two-handed neurofascial release technique instruction:**

Once you have practiced with one hand, you can use two hands.

1. Place one finger of one hand on the occiput at the base of the back of the head on one side. Test the slide-ability of the skin over the bone as described above. The skin should slide more easily in one direction than the other over the bone.
2. Place a finger from the other hand at the top of the neck on the same side. (it will be below the other finger - fairly close). If you push a little deeper, you should be able to feel the muscles. Use this finger to test the slide-ability of the skin over the muscles at the top of the neck. It should move more easily in the direction opposite to the direction that the other finger is sliding over the skull bone.
3. After you have tested, lighten your pressure. Let the fingers of your two hands slide the skin in the opposite direction until you feel resistance.
4. Stop there, and hold that slight tension; wait until you get a sigh or swallow.
5. Release your fingers, and allow the skin to return to its original position.
6. Do the same thing on the skin on the opposite side of the skull and the neck.

### **Salamander Exercises:**

These progressively increase flexibility in the thoracic spine, freeing up movement in the joints between the individual ribs and the sternum. This will increase your breathing capacity, help reduce a forward head posture by bringing your head back into better alignment, and reduce spine curvature.

By improving our pattern of breathing with these exercises, we tell the brain that we are safe and that our visceral organs are functioning properly. This in turn facilitates ventral vagal activity.

A forward head position reduces the space in the upper chest available for breathing. These exercises can create more space in the upper chest for both the heart and lungs. Reducing a forward head posture will also take pressure off the nerves that reach from the spinal cord to the heart, lungs and visceral organs.

When you do these, you bring your head to the same level as the rest of your spine.

#### Level 1: The half-salamander exercise

<https://www.youtube.com/watch?v=QxajHN6L30>

To do the first part of the Salamander exercise to the right, sit or stand in a comfortable position.

1. Without turning your head, let your eyes look to the right.
2. Continuing to face straight forward (with eyes looking right), tilt your head to the right so that your right ear moves closer to your right shoulder, without lifting the shoulder to meet it.
3. Hold your head in this position for 30-60 seconds.
4. Then let your head come back up to neutral, and shift your eyes to look forward again.
5. Now do the same on the other side: let your eyes look to the left, and then side bend your head to the left. After 30-60 seconds, return your head to an upright position, and your eyes to a forward direction.

The Half-salamander (a variation): Follow the same instructions above, but let your eyes look to the right while tipping your head to the left (so eyes are opposite to the tip of the head). This movement of your eyes in the opposite direction before you move your head increases your range of motion. You should be able to side-bend your head even further. Hold 30-60 seconds. Repeat on the other side.

## **Level 2: The full Salamander exercise**

[https://www.youtube.com/watch?v=7g\\_512rRZ4I](https://www.youtube.com/watch?v=7g_512rRZ4I)

These exercises involve side-bending the entire spine rather than just the neck. Also, we use a different body position.

1. Get down on all fours, supporting your weight on your knees and the palms of your hands. Your head should be on the same plane as your spine. (see video)
2. In this exercise, your ears should be neither lifted above nor dropped below the level of your spine. In order to find the right head position, lift your head slightly above what you think is right. You should be able to sense that your head is slightly raised. Then lower slightly below what you think is right. Go back and forth between the two positions. Try to find a position in the middle where your head does not feel too far up or down.
3. Once you have found a good position for your head relative to your spine, look to the right with your eyes, hold them in that position, and side-bend your head to the right by moving your right ear toward your right shoulder.
4. Complete the movement by letting the bend in your side continue beyond your neck, all the way down to the base of your spine
5. Hold this position for 30-60 seconds.
6. Bring your spine and head back to center.
7. Repeat all steps above, but on the left side.

## **Other Exercises:**

### **SCM Exercise for a stiff neck:**

This will extend your ROM as you rotate your head, alleviate symptoms of a stiff neck, and help prevent migraine headaches. (It is similar to tummy time for a baby)

1. Lie on your stomach. Lift your head and bring your arms under your chest. Rest the weight of your upper body on your elbows.
2. Rotate your head to the far right as far as it comfortably goes. Hold for 60 seconds.
3. Bring your head back to center.
4. Now rotate your head to the left as far as it comfortably goes, and hold that for 60 seconds.

### **Twist and Turn for the Trapezius:**

This can help improve the tone of a flaccid trapezius muscle and balances it. It can also help lengthen the spine, improve breathing, and correct forward head posture. This often then alleviates shoulder and back pain

It can benefit anyone - and takes less than a minute to do, and the feeling of positive change is immediate. It is a good exercise to do whenever you have been sitting for awhile, and repeat from time to time. Every time you get up or rest on the computer, etc. Every time you do this, you will experience and improvement in breathing and posture, and its positive effects are cumulative.

The idea is not to strengthen or stretch the trapezius muscle. The assumption is that the muscle is strong enough and just needs stimulation of the nerves to flaccid muscle fibers. You are waking them up so they can take over their share of the work. (There are three parts of the trapezius. We use them all as infants and crawling babies. Once walking, some fibers are no longer used. Some become tense and some become flaccid.)

After doing the exercise, you will have more tone in all 3 parts of your trapezius, which will help reduce forward head posture and improve overall posture.

<https://www.youtube.com/watch?v=8cARBb6xmjY>

There are 3 parts to this exercise - and the differences are in the position of your arms.

1. Sit comfortably on a firm surface, such as a chair or bench. Keep your face looking forward.
2. Fold and cross your arms, with your hands resting lightly on your elbows. You will be rotating your shoulder girdle briskly, first to one side and then the other, without stopping, and without shifting the hips (so your trunk faces forward).
3. For the first part of the exercise, let your elbows drop and rest just in front of your body. Rotate your shoulders so that your elbows move, first to one side and then back to the other side. When you rotate your shoulders from side to side, your arms glide lightly over your stomach. This activates fibers in your upper trapezius.
4. Do this three times. Do not strain, and so not stop your movement. Move your shoulders without forcing them or holding them; your movements are easy and relaxed.

5. The second part is like the first - except you lift your elbows and hold them in front of your chest, at the level of your heart. Rotate your elbows first to one side and then the other. Do this three times. This activates the fibers of your middle trapezius.
6. For the third part, raise your elbows as high as you comfortably can and repeat the exercise - rotating three times. This activates the lower trapezius.

After you have done this, you might notice your head feels lighter and has moved back and up, away from the forward head posture. (Some will become an inch or two taller).

### **A Four minute Natural Facelift Part 1**

[https://www.youtube.com/watch?v=b\\_o-eVmWEJQ](https://www.youtube.com/watch?v=b_o-eVmWEJQ)

Benefits of this gentle and pleasant treatment include relaxing the facial muscles and leaving a more natural smile in place by improving the function of CN V and VII.

This exercise:

- Improves the circulation to the skin
- Puts life into the muscles of expression of the middle third of your face, in the area between the corners of your mouth and the corners of your eyes.
- Improves blood circulation to the skin of your face
- Brings a youthful quality of liveliness that you can feel and others can see
- Helps you smile more naturally and more often
- Makes your face more responsive to interactions with others, and thereby increases your sense of empathy.
- Makes flat cheekbones a little more prominent and makes very high cheeks a little flatter.

Study your face before you start. After you do one side - see if you can tell the difference.

Lightly touch the skin about an eighth of an inch to the side of the top of the supra-alar crease (the fold between your cheek and upper lip - near the outer edge of the nostril). If you explore this area with your finger, you will find the point (Large intestine meridian called LI 20) because it is more sensitive than the rest of the surrounding skin.

How and why to do this technique:

The surface of the facial skin is innervated by the 5th CN. Lightly touching stimulates these.

1. With very light contact, brush the surface of the skin at point LI 20. Then let your fingertip melt together with the skin.
2. Slide the skin up and down to find which direction presents greater resistance. Push lightly into that resistance. Stop.
3. Hold at that point, and wait to feel it release.
4. Slide the skin inward toward the midline of the face, and out toward the side to find the direction of greater resistance.
5. Stop there, and push lightly. Hold and wait for the release.

The muscles of the face are innervated by branches of the 7th CN. There are 2 layers of facial muscles just below the skin.



6. Let your fingertips sink gently into the muscle layers beneath the skin at the same point. Let the first muscle layer adhere to your fingertip as if it were velcro.
7. If you are careful not to push too hard, and if you feel what is happening under your fingertips, you can slide these layers of muscles; first slide one layer over the top of the other, making a small circle.
8. As you go around the circle, you may notice that there is more resistance to sliding the skin in one direction. Keep pushing lightly in that direction and hold until there is a release in the form of a sigh or swallow.
9. Next, push slightly deeper. Now the deeper layer of muscle sticks together with the top muscle layer and the skin. You can slide both layers together over the surface of the bone.
10. As you go around the circle, you may notice that there is more resistance to sliding the skin in one direction. Keep pushing lightly in that direction, and hold until there is a release in the form of a sigh or swallow.

All bones have a connective tissue covering called the periosteum. This tissue is very rich in nerve endings from the spinal nerves and in this case, the cranial nerves.

11. Let your fingertips sink even deeper into the face until you rest lightly on the surface of the bone.
12. Massage on the surface of the periosteum has a profound effect on the autonomic nervous system. Press lightly, but hard enough to reach the surface of the bone at the LI 20 meridian point. Let your fingertip move from side to side on the surface of the bone, then hold a light pressure on the bone and wait until you get a release.

### **A four minute natural face-life, part 2**

Part 1 focuses on LI 20 (acupuncture site or the large intestine). Part 2 focuses on the eyes. The actual technique is similar to part 1. You will find point B2 on the inside corner of the eyebrow. (many people rub this area when tired).

Using your thumb or one finger, connect to B2. At B2, work your way down each of the layers; the skin, the two layers of muscle, and the periosteum.

This point is also a trigger point for an eye muscle that surrounds the opening of the eye. This may affect how open the eye is. There will be improved eye opening, improved balance between looking outward and looking in. You will see another person more clearly, and they in turn will have an easier time making eye contact with you and experience seeing you differently. You can stimulate tears as well - welcome to some and annoying to others:) Overall, it will leave your eyes bright and sparkly.

1. Find the place at the corner of the eyebrow that is more sensitive than the surrounding areas.
2. First use your fingertip to brush the skin lightly a few times.
3. Let your fingertip rest lightly on the skin at point B2 and hold contact with the surface of the skin until you get a release in the form of a sigh or swallow.

4. Next, press gently down on the layer of the facial muscles. This is where the flat, round orbicularis oculi muscle, which goes around the eye, attaches to the bones of the face. Let the skin stick to your finger and make a small circle, sliding the skin lightly and searching for the direction where there is resistance.
5. Hold your finger on that resistance until you get a release in the form of a sigh or swallow.
6. Then go even deeper until you feel the surface of the bone. Rub that a few times.
7. Then hold contact with the bone, and wait for a release.

## **Common Problems related to cranial-nerve dysfunctions**

### **Chronic Physical tensions**

- Tense/hard muscles
- Sore neck and shoulder muscles
- Migraines
- Back pain
- Tightly clenched teeth
- Grinding teeth at night
- Eye or facial tensions
- Cold hands and feet
- Unwarranted sweating
- Tenseness after exertion
- Arthritis
- Nervousness
- Dizziness
- Lump in throat

### **Emotional issues:**

- Irritability, anger
- Feeling “down”
- Feelings of hopelessness
- Lack of energy
- Tendency to cry easily
- General anxiety
- Feelings of heaviness
- Extended periods of depression
- Fearfulness
- Nightmares
- restlessness
- Difficulty sleeping
- Excessive worries
- Difficulty concentrating
- Forgetfulness
- Frustration
- Excessive daydreaming and fantasizing

### **Heart and Lung Problems:**

- Chest pains
- Asthma
- Hyperventilation
- Shortness of breath
- Irregular heartbeat
- High blood pressure

**Visceral-organ dysfunctions:**

- Poor digestion
- Constipation
- Irritation of the large intestine
- Diarrhea
- Stomach problems
- Hyperacidity, ulcer, heartburn
- Loss of appetite
- Excessive sweating

**Immune system problems:**

- Frequent influenza/infections
- Minor infections
- Allergies

**Behavioral problems:**

- Frequent accidents or injuries
- Increase in drinking or smoking
- Excessive use of medication with or without a prescription
- Autism, ADHD, Asperger's

**Interpersonal relationships:**

- Excessive or unreasonable distrust
- Difficulty in reaching agreements
- Loss of interest in sex

**Mental issues:**

- Excessive worrying
- Difficulty concentrating
- Difficulty remembering
- Difficulty making decisions

**Other problems:**

- Excessive menstrual pains
- Skin problems