

Muscle Management

Incorrect body posture and alignment

As soon as we wake up, we begin to orient ourselves and unconsciously tighten our muscles to adopt our desired posture. Hereby we stabilize ourselves so that we can move without falling. Our senses enable us to defy gravity.

Our muscles are wrapped around our skeleton. The upper muscular layers are usually responsible for visible movements, whereas the deeper muscles support the joints and internal organs. Contraction of these muscles gives us the stability we need to move.

If we have sufficient spatial awareness and contact with the ground, stabilization will not be at the expense of our posture and expressiveness. If something throws us out of balance, then we overcompensate with excessive stabilization. This means that we tighten our muscles, close our body, and make ourselves more compact. We use the deep muscles to regain our balance, which creates inner stress. This inner stress is a strain on the joints and internal organs. This is a normal, healthy response as long as the danger is real.

An anxious rabbit does exactly the same thing. However, unlike the rabbit, people tend to hold onto inner tensions even after the danger has ceased. Especially when these perceived dangers return regularly, protective reflexes change into chronic stressors, which we often are not aware of. Most tensions occur not only in the muscles of the jaw, neck, and shoulders, but also in our hips, feet and toes to prevent us from falling.

In addition to physical afflictions, chronic stress also affects our behavior. We become insecure, reluctant, anxious, and confrontational, which sometimes causes us to accept things we do not really want.



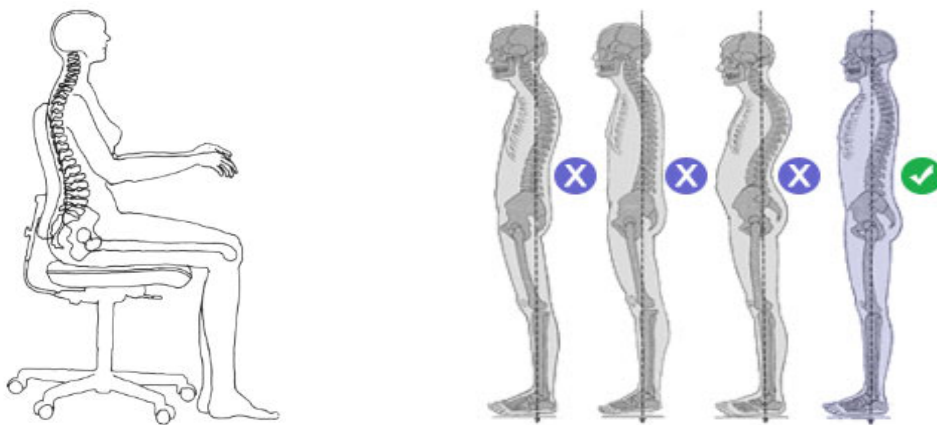
Adjusting body posture

Clearly, you cannot adjust your body posture all at once; it must be done one step at a time. First, we must reduce our inner tensions. If we don't, there will be a struggle between the inside and the outside, and then the inside will come out as the winner. By changing our posture from within, we create new sensory memories in terms of balance and stability. As a result, our body automatically adjusts. Although self-awareness is vital, keep in mind that being physically fit is also necessary for correct posture.

For correct posture, keep your shoulders relaxed and aligned with your hips. When standing against a wall, you should feel the heels, calves, buttocks and shoulder blades against the wall. Your head should be approximately two finger-widths from the wall.

While sitting or standing, the position of your pelvis is important: it should be tilted slightly forward. Your spine makes a slight S-curve. This shape protects the head from shock while running. The head should be aligned with the pelvis, making optimal use of the backbone's carrying capacity. Our head is approximately one-eighth of our body weight. That's an average of nine kilograms—a lot of weight for your spine to carry all day long!

Below is the correct alignment for sitting and standing.



Exercise: Alignment correction of the upper body

Lie on the ground with your knees pulled up in a relaxed way. Your feet should be parallel to your hips. Make sure your head is slightly elevated by placing something (for example, books) beneath it. The height corresponds to the width of your first three fingers together. It is important to keep your neck muscles relaxed. Place your palms on either side of your abdomen with your elbows on the ground. Relax and let the weight of your body rest on the ground as much as possible. Allow your awareness to travel from your buttocks to your shoulders and feel the pressure from the ground.

After five minutes, spread both arms outwards by moving your hands off your stomach while leaving your elbows in the same place until your arms are spread outward and your palms are facing the ceiling. Stay like this for a few minutes. Next, turn your palm toward your head and move it in that direction until your hand is above your shoulder (do not move your elbows), then return your arm to the ground and repeat on the other side. Do not force anything, and stop when muscle tension stops you. Hold this position for a few minutes. Repeat with the other arm.

Put your hands back on the side of your stomach and stay relaxed for a few minutes.

The whole exercise takes about 15 minutes. Try doing this once a day and your alignment will gradually improve.

Exercise: Tilting pelvic floor for seated posture

Sit on a chair or stool without a backrest and feel the pressure of the backs of your legs against the seat. Create a right angle at your knee, keeping your upper and lower legs straight. Make a forward and backward movement with your pelvis and feel how your weight moves on your sitting bones. Try to rock your pelvis backwards so that your tailbone hits the seat, and then rock forward until your pubic bone touches the seat, feeling your alignment shift.

During this exercise, the lower back alignment will change from a slight forward curvature to a slight backward curvature. Notice the effect on breathing! A slight forward curvature with the pubic bone directed at (but not touching) the seat of the chair is the correct sitting posture.

Breathing overview

Let's first have a look at our physical capacity for creating energy. Breathing is by far the most important factor; we do it around 23,000 times per day. This means 23,000 possibilities to improve and gain more energy.

Untrained, we cannot last longer than 30 seconds without breathing, emphasizing the importance of breathing for our bodies. As soon as the body becomes more active, it requires more energy/oxygen, and our heart is beating faster to spread that energy as quickly as possible. This mechanism also works differently when we breathe more slowly: our heart rate decreases and the body becomes calmer. Many meditation techniques use this mechanism for rest and focus—not only for the body but for the mind.

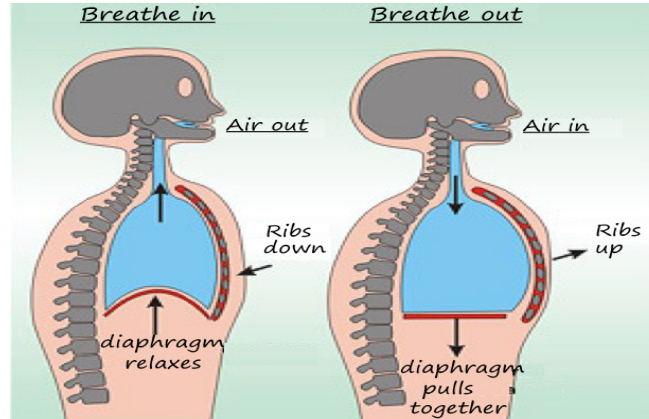
Oxygen is our main source of energy. Without oxygen, no combustion can occur in our body cells. Cells burn glucose to make energy. During this process, carbon dioxide is released. Carbon dioxide is very important for the acidity (Ph) of the body. The acidity should not differ for a long time (ideally 7.4) because it causes all kinds of complaints, such as fatigue, headache, muscle aches, digestive complaints, and chest pain.

As you breathe, the level of carbon dioxide increases rapidly, causing your blood to become more acidic and forcing your body to breathe out. You need more oxygen during physical stress, but you also produce more carbon dioxide, which necessitates faster and deeper breathing. If you breathe more quickly but do not exercise physically, you become stressed, anxious, or jittery; you lose too much carbon dioxide without the balance created by physical activity. This blood distortion affects your entire body, which thus reveals your inherent weaknesses, for example a tendency for headaches or digestive problems.

Combustion in our cells continues constantly and never stops. The energy that is produced is used not only for motion but also to regulate our body temperature, tissue renewal, or the production of nutrients and hormones.

We breathe peace in through the nose and action in through the mouth. Air inhaled by the nose flows more slowly but at a higher pressure, thus filling the lower part of the lungs. This also brings our autonomic nervous system (which controls unconscious bodily functions) to rest. Breathing by mouth has the opposite effect: we breathe mainly with the chest, filling only

the upper part of the lungs. The autonomic nervous system becomes stimulated to action and prepares the body. Our breathing frequency increases to supply enough oxygen and exhale enough carbon dioxide.



When breathing, the lungs fill with air. The chest cavity expands to give the lungs more space. The ribs move outward and the diaphragm lowers to create this space.

Unfortunately, breathing does not occur as intended in many people. There may be several reasons for this, including emotional tension, incorrect posture, and sucking in your stomach. The breathing space is restricted, resulting in a shallow, fast, and superficial respiration. This type of breathing is certainly not conducive to relaxation and awareness.

Our body responds not only to physical activity but also to thoughts, expectations, uncertainties, etc. We unconsciously tense muscles during an annoying conversation, when we are worried, or when we are in a hurry. Often the thought of such an event is enough to cause the same muscle tension. These unconscious reactions are conditioned by past experiences and can cause a lot of energy loss.

Height and weight also affect breathing capacity. The taller you are, the more space there is for your lungs. On the other hand, your weight does not determine your breathing space directly, but rather it affects your body's consumption of oxygen. When a person of average weight is at rest, the blood contains about 20 milliliters of oxygen as it leaves the aorta (oxygen-rich blood). However, if you are overweight, there will be no more than 10-15 milliliters. At rest, people with obesity have no breathing problems, but this changes when they become active.

Correct breathing

By this we mean breathing during normal activities, so not during exercise, sleep, walking firmly, etc. We always breathe through the nose at rest. Breathe in powerfully for 2 to 3 seconds. Then allow a very small natural break, before slowly and calmly exhaling for 3 to 4 seconds. After breathing, count a small interval of 2 seconds, and then inhale again. Visualize breathing as ascending a mountain and, after a short rest at the top, descending the mountain. In the valley before the next mountain, you will rest again, and then continue on to the next mountain +/- 23.000 times a day. :-) This breath pattern results in approximately 6 to 7 breaths per minute, so we have a relaxing, effective, and healthy breathing pattern—a breathing that not only fits our physiology but also gives us mental rest and balance.

Exercise: Abdominal breathing

With only willpower, it is difficult to address the deeper layers in ourselves. It is therefore important to pay attention to contact points. First, sit upright in a chair with correct posture. Feel the seat beneath your sitting bones. Put your hands on your belly and breathe. Feel the way your alignment changes as you breathe in and out; there will be a natural rhythm. (You can also do this exercise with a partner: your partner will stand behind you and press gently down on the tops of your shoulders as you inhale, then release as you exhale. This will enable you to feel more clearly the weight on your sitting bones.)

Our subconscious mind is at the touch of our body and makes only very limited distinction between reality and thought. By way of visualization, we can call upon imagery to which the subconscious and body react as though they were real. As you breathe, visualize the breath moving through your body.

Exercise: Time, space and air enough

1. Follow your breathing for +/- 1 minute. Follow in your mind's eye how the breath moves through your body: the rate of inhalation and exhalation, the rest period after exhalation, and the invasion of distractions.
2. Breathe 5 to 6 times and say to yourself, "There is no hurry, and time enough to breathe." Stop and compare your pattern with that of part 1.
3. Breathe 5 to 6 times and say to yourself, "There is no shortage, and air enough to breathe." Stop and compare your pattern with that of part 1.
4. Breathe 5 to 6 times and say to yourself, "There's room enough to breathe." Stop and compare your pattern with that of part 1.
5. Breathe 5 to 6 times and say to yourself, "Breath goes on its own and does not make any effort." Stop and compare your pattern with that of part 1.

In many people, the pressures of everyday life increase muscle tension. As a consequence, the rib cage has become a kind of "harness" that does not move sufficiently with breathing. By doing exercises and massaging the rib cage, natural flexibility returns and breathing space is increased. We have seen respiration and emotions react to each other. Because the upper body is less tight from the "harness," we feel more relaxed and calm, making us more emotionally resilient and stable.

During breathing, inhalation is supposed to lower our diaphragm towards the belly and gently expand our rib cage in all directions. It makes a big difference here whether we breathe through our nose or mouth. When the body is active and needs more oxygen, we will automatically breathe through the mouth. Because the frequency of breathing increases, there is not enough time to breathe deeply so we instead breathe shallowly through the thoracic cavity. This reflex is very deep so that we automatically breathe more through the chest cavity when we breathe through the mouth, even when we are not active.

Exercise: Create space for breathing

1. Massage your fingers between the rib bones. The right hand should massage the left side and the left hand should massage the right side. Do it 5 times
2. Interlace the fingers of both hands and place them under the sternum. Gently press in with exhalation (breathe 3x shallowly) and release with inhalation. Repeat 10 times.
3. Hook your fingers to the right under your rib cage (liver) and push in during exhalation (breathe 3x shallowly) and let go during inhalation. Do the same on the left (stomach). Repeat 10 times.
4. Place hands on the ribs (arms over each other) and press on your ribs while breathing out (breath 3x shallowly), then gradually reduce pressure and breathe in. Repeat 10 times.
5. Place hands behind the back, right hand encircling the left wrist. Stretch the elbows back during inhalation (shoulders go backwards) and relax while exhaling. Repeat 10 times.
6. Hands lie with tangled fingers on top of the head. Position the elbows to either side. Breathe into your upper back and pull chest and neck muscles upwards. Relax and breathe out. Repeat 10 times.

Exercise: Three-dimensional breathing

Lie on your back on a mat with a towel folded at the bottom to support your lower back and folded at the top to pillow your head (your head will be elevated approximately three finger-widths higher than your waist). Loosen garments, especially for belts and braces. During inhalation, imagine a delicious smell (roses, cookies, nature, etc.) that make your nostrils open.

Feel the weight of gravity, which makes it easier for you to breathe with your diaphragm. Breathe slowly through the nose and let the breath flow into your stomach. Take care to subtly raise and lower your belly without affecting the exercise.

Rest your hands against the side of your lower ribs and feel how they move apart during inhalation. You also feel that your backbone is pressed gently against the mat when breathing.

Concentrate on body weight during exhalation, feeling the pressure of the floor. Do not focus on exhaling but on the pressure your body exerts on the floor. Determine which part is the most relaxed and focus on that feeling. Extend this feeling slowly throughout your body.

Breathing deeply and three-dimensionally is a good way to breathe through the nose so our body knows that we want to breathe deeply and in the direction of the belly.

In the above we mainly have discussed the physical aspects of posture and breathing. We now have a better understanding what happens inside our body and how we can control / optimize our posture and breathing.

There is however a even more important factor that influence our posture and breathing, emotions. In the next part we will discuss this in more detail.