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SIT, BREATHE, & ALIGN YOUR SPINE

Chairs Are Sabotaging Our Spinal Curves

Whether we are driving a car, working on the computer, or having a meal, we spend a lot of time sitting in some kind of chair. Some people sit more than eight hours a day and back pain has become an epidemic in the modern world. Most chairs are made in a right angle shape with the seat perpendicular to the chair back. The human body is designed for movement and like all of organic nature, the structure of our body is designed to be round and curving, composed of cylinders, spirals, and arches. But for some odd inexplicable reason, we designed chairs to be linear and right-angled. The bane of our modern lifestyle is that we have to spend so much time in a chair, forcing our round body into a linear perpendicular shape.

Sitting in a chair improperly can sabotage posture, compress our spinal curves, and inhibit the muscles of respiration. In fact, chair sitting can inhibit the movements of

breathing and contribute to poor posture habits. Here are some techniques that will help you sit stronger and longer while keeping your spine aligned when sitting in a chair.

Most chairs are designed to position the body in a right-angle position where the kneecaps are located directly across from the hip joint. Having the knees at the same level as the hip joint passively shortens the abdominals, weakens the back extensors, inhibits the movements of breathing, and suppresses the expansion of the rib cage. Most people slump backwards with their pelvis tucked under and spine collapsed rather than engaging the spinal extensors to hold up their trunk. The back muscles get weaker and the breathing apparatus begins to atrophy, leading the spine to compress, drive the internal organs forward, and overload the peripheral muscles of the lower back and neck.

Chair sitting can lead many people to develop dysfunctional breathing habits, forcing many to initiate breath primarily using the neck, shoulder, and upper chest muscles. These breathing and posture habits can become ingrained, resulting in forward head carriage, a rounded upper back, C-shaped spine, and a posteriorly positioned pelvis. The C-shaped spine further inhibits the breathing apparatus and the structure begins to collapse inward, causing premature aging, chronic pain in the lumbar spine and sacroiliac joint region, spinal arthritis and vertebral degeneration, inhibited digestion and elimination, higher levels of anxiety, depression, and other disorders such as headaches and vertigo.

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Active Sitting

Here are some tips for sitting that will get you out of the C-shape, align your spine, tone your core from the inside out, and greatly reduce the negative effects of chair sitting. You can use these active sitting techniques by utilizing the movements of breathing to engage your core muscles, stabilizing the spinal column, and freeing your breathing apparatus while in a chair.

Elevate Your Hips - Always keep your hips higher than your knees when sitting in a chair by sitting on a firm cushion, yoga blocks, or a large exercise ball where your knees are kept below the level of your hip joint. Try to get high enough to position your hips four to five inches above the level of your knee caps. Avoid using the chair back and engage your back muscles while keeping your thighs hip width apart. Avoid letting your thighs roll out by engaging your gluteal muscles while sitting to support the alignment of your pelvis and sacrum.

Computer Adjustments - Position the level of the computer screen directly across from eye level using books or blocks to elevate the screen. Type with your shoulders relaxed and away from your ears. If using a laptop computer, consider purchasing an external keyboard so that your hands and eyes are separated and the computer screen can be elevated to eye-level.

Maintain Optimal Spine Alignment While Sitting

Practicing focused breathing methods can greatly improve posture by aligning your spine from the inside out.

Core SIP Breathing Exercise - While sitting in the chair with hips elevated above your knees, slide one foot a few inches forward of the other. Sit tall and allow your shoulders to soften away from your ears. Keep the pelvis level and make sure that your lower back curve is not flat. Straighten your elbows and allow your arms to position along the sides of your body with thumbs facing forward. Open your fingers wide with the palms facing the sides of your torso. Always make sure the lumbar spine has its natural curve and the sacrum is positioned with an approximate 30° of nutation. Make sure you feel yourself sitting on the front edge of your sit bones, prohibiting your pelvis from rocking backwards.

Inhalation - Begin by positioning your mouth as though you are about to whistle, making a small circular opening in your lips. Inhale slowly and quietly through the O-shape in your lips to a comfortable level of expansion. Feel your rib cage expanding like a ball filling with air. Make sure to move the ribs sideways and feel the expansion of your ribs in the back body. Retain the inhalation for five seconds, making fists with your fingers and contracting your gluteal (buttock) muscles.

Exhalation - Open the fingers and begin to exhale while making an SSS sound as though letting air out of a tire. Move the air out slowly and sit tall. Keep contracting the inner thigh muscles, keeping them hip width apart. Do not allow your thighs

to externally rotate (roll outwards) as the lumbar spine will collapse and you will lose the natural sacral arch. Observe the internal contraction of your rib cage and abdominal muscles while retaining the curves in your spine and keeping your pelvis neutral. Do not exhale too deeply or allow your lower back to flatten. Inhale again using the SIP breathing technique through the O-shape in your lips. Keep expanding and opening your fingers, noticing how your waist lengthens from the movements of inhalation. Fist your hands and gently retain the breath for five seconds while contracting the inner thighs and muscles of your buttocks and torso. Open the fingers and let the breath out slowly, making the SSS sound through your teeth. Keep the body lifted and upright.

Exercises & Adjustments to Activate Your Deep Core

Resistance SIP Exercise - Place your feet hip width apart with your feet slightly forward of your ankles. Place your fingertips between your thighs with your elbows extended (straight). Keep fingers wide open and gently squeeze your thighs in against the resistance of your hands pushing outwards. Begin the SIP inhalation technique and gently retain the inhalation. Make your hands into fists and begin

to squeeze inwards more with your inner thighs, squeezing your buttocks while pressing out with your hands. After five seconds, open fingers wide, exhale slowly with the SSS sound, and continue to adduct (contract) your inner thighs while abducting (pressing outwards) with your hands.

Sitting Tall - Practice sitting tall with your thighs engaged as though gently squeezing a ball between them.

Adjust Your Screen - When sitting at your computer chair, always keep your screen adjusted to eye-level and keep your knees well below the level of your pelvis. Notice your inner core muscles have engaged? Yes, keep it up!

Walk Around - Get up every 20-30 minutes and spend two or three minutes walking around the room using the SIP breathing technique to elongate the torso on the inhale and using the SSS sound on the exhale to tone the core muscles to stabilize and support the natural curves of your spine.

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About the Author:

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