

Understanding Bad Posture & Chronic Low Back/Neck Pain

*How Decades of Throwing Our Weight Backwards
Has Made it Impossible to Sit & Stand Efficiently*

By Michael Protzel

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Society's rampant bad posture isn't a result of laziness, lack of strength, or not knowing what the proper aligned position is. Ultimately, it is not a 'posture' problem at all. The reason we can't sit well is because from an early age, due to the unfortunate social conditioning that normalizes throwing our body weight backwards as we sit, we unwittingly begin lifting our bodies up into uprightness in a way that goes against millions of years of evolution. In sitting-back, we sever the vital kinesthetic connection between our body mass and gravity, disabling the ground contact forces that have evolved to lift us easily and efficiently. As a result, we end up needing to hold ourselves up with strenuous muscular effort that cannot be sustained.

We all learn very early on that throwing our weight backwards into chairs, sofas, etc. is, simply, 'what human beings do' – the most normal thing in the world. We learn this subliminally, by seeing everyone around us sitting back all the time. It makes a deep impression – well before we've developed the muscular strength to actually sit this way. Around the age of 3 or 4, we develop the muscular strength, and start sitting-back with staggering repetition ... and we never stop. It is our habit of throwing our body weight backwards that produces the widespread bad posture and chronic low back/neck pain so prevalent in the world today.

Underneath this habitual manner of uprighting, lying dormant, is our dynamic *innate* uprighting ability. As infants, we display it, sitting beautifully, simply by letting gravity take our body mass straight down to earth, using the reciprocal force to empower our deepest extensor muscles, running ground to crown, to lift our spines into verticality with optimal efficiency. Through our toddler years, we are physical dynamos. Then we start sitting back in chairs, and we lose touch with the power of our weight.

What I hope to share with others, based on my personal experience and as a teacher of this work for 25 years, is that it *is* possible to restore our innate uprighting ability. We can use gravity's power to our advantage, enabling us to sit, stand and walk with greater ease and efficiency.

By 30, my body was on the brink. A lifetime of injuries—swollen left knee at age 10, locked right hip joint at 17, regular back spasms in my teens, spinal disc problems in my 20s — led to neck and back pain that made even a day of simple office work difficult. Desperate for relief, I turned to the Alexander Technique, an educational discipline that helps individuals recognize and change maladaptive habitual motor patterns. The results were very positive. So much so that after two years of private lessons, I entered a four-year training program, ultimately becoming a certified AT teacher.

Despite my progress, I was missing something important. A single moment in a Tai Chi class changed everything. I was 42. For the first time in my life, I noticed myself "mis-committing my body weight,"

sending it way back and to the left, bearing weight on the far lateral-posterior edge of my left heel. My leg was locked, unable to do what needed to be done. Instantly, my lifetime of injuries flashed before my eyes. That was the beginning. I have now been studying and teaching the work for many years. Here's what I've learned:



A Long, Long Time Ago

We were horizontal creatures swimming in the ocean. Over eons of time, we moved onto dry land, grew four legs and gradually started moving toward the vertical. We learned to commit more of our weight into our hind legs, making them stronger and stronger, able to support ourselves at higher altitudes. Eventually, we perfected the skill as human beings.



A Highly Evolved Skill

Innate “Uprighting” is the highly evolved *ability* human beings have attained *to lift our spines into verticality* easily — lifting our heads up to the highest point to give us the best view of the world, while freeing our hands to do the things we do. This ability is a defining characteristic of our species. Without an act of lifting, human beings would have no upright posture at all. We'd just be a pile of flesh and bones on the ground. We lift efficiently through a deep sensory connection with our body weight, enabling us to capture the force of gravity at ground contact and use the energy to power our uprighting. We all inherit this ability and, as infants, teach ourselves to sit beautifully, simply by letting our body mass drop *straight* down to Earth. We naturally tip forward a tiny bit, hit the ground at the legs and bounce right back up. An easy and highly efficient flexing/extending cycle. By the age of 2, we apply this to standing, walking and running. (A full description of how innate uprighting works — in words and video — can be found in **Uprighting 101 - A Free Introduction Course** at www.uprighting.com/pages/courses).



Subject to Cultural Conditioning at a Very Young Age

Yet, the normalization and prevalence of sitting back into chairs conditions us from birth. We see everyone around us sitting back all the time, everywhere. We accept the normalcy of sitting back unequivocally, without conscious thought or consideration. We wordlessly 'understand' sitting-back as, simply, 'what human beings do.' We reach this conclusion, subliminally, well before we've developed the muscles to actually sit that way.



Joining the Crowd

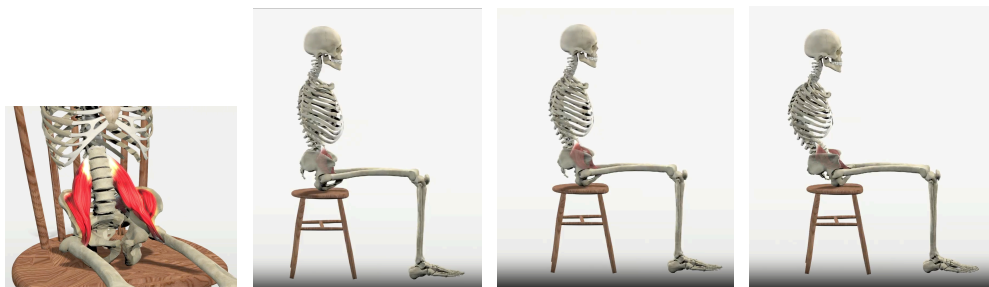
By 3 or 4, we've developed these muscles: powerful ilio-psoas muscles (hip flexors) that slow us down as we fall backwards, enabling us to move *gradually* towards the chair-back rather than slamming into it, and that yank us off the chair-back once we've anchored ourselves there.

We haven't a clue that we are radically changing the way we are lifting up the head and spine. We don't notice the muscular strain and skeletal distortion that manifest automatically when we commit body weight backwards. Our innate lifting ability is aborted and a far inferior, effort-laden method is adopted. By the age of 5, this concocted method of uprighting is the only method we know. We can still sit and stand, but our innate ability to perform these activities efficiently is long forgotten. We end up over-working some muscles, under-working others, straining support joints, constricting breathing, squashing internal organs, limiting our freedom of movement, wasting energy and who knows what else. We don't feel these effects in youth, when the body is supple. As we age, however, the damage accumulates. Back pain, neck tension, and a general sense of bodily discomfort become so commonplace that they seem inevitable. But they're not.



Sitting Back in Chairs – Relinquishing Conscious Control

Every time we sit back in a chair or sit independently on a stool or on the ground, rocking back into a slump, our subconscious brain orchestrates immediate compensatory adjustments that are necessary to keep us functional. We're very used to them but don't actually *feel* them.



The Overworking of Powerful Hip Flexors – The Ilio-Psoas Muscles

Our ilio-psoas muscles are very important, survival-based muscles. They connect the lower torso to the legs, protecting us against falling backwards onto our skull should we hit a bump in the road while walking or running. **They are not meant to be continually activated.** They have no role in *innate* uprighting. When our body weight drops straight down, hip joints flex naturally, without the need for muscular effort (simply because we have more weight in front of our centerline than behind it). Every time we sit back, however, we engage the ilio-psoas muscles to secure the pelvis and lower spine as it is dropping backward. They slow us down so that we move back toward the chair-back gradually, not in a free fall. And when we sit slumped on a stool or on the ground, we use ilio-psoas muscles to stop our backwards movement completely and hold us in place. We engage these muscles constantly. Trouble is, our ilio-psoas muscles connect to our lumbar vertebrae. Every time these muscles contract, they pull on these vertebrae. Most low-back pain originates at the lumbar vertebrae.



The Over-Flexing of the Upper Spine – Our Big C-Curve

As the pelvis and lower spine drop backwards, in order to keep seeing the world out in front of us, the upper spine needs to flex forward so the head and neck stay more or less vertical. Without this flexing, we'd be looking up at the ceiling when we committed body weight backwards. The further backwards the lower spine drops, the more the upper spine needs to flex forward.



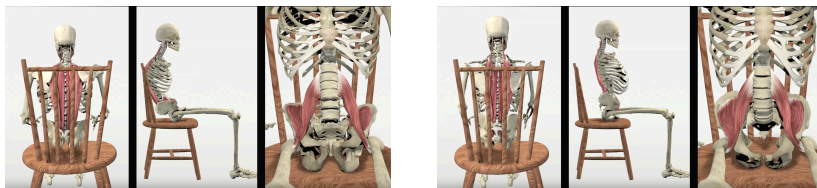
Over-Working Upper Back & Neck Muscles to Hold Up the Head and Neck

When we sit back in a chair, the part of the body below the spine's contact with the chair is just dead weight, doing nothing. Above chair contact, it's a different story altogether. The upper spine, neck and head, which are flexing forward, need to be *held* up. This requires rigorous effort of upper back and neck muscles. Using these muscles *alone* makes for very inefficient lifting. No wonder our necks are so sore. When we use our *innate* uprighting ability, we lift the head and neck by engaging deep extensor muscles that *run the length of the body*. (A full description of how innate uprighting works — in words and video — can be found in **Uprighting 101 - A Free Introduction Course** at www.uprighting.com/pages/courses).



Tilting the Head Back

With the lower spine dropping backwards and the upper spine and neck dropping forwards, our heads would be drooping down even further were it not for powerful sternocleidomastoid muscles (which connect the sternum and collar bone to the back of the skull) tilting the head up, keeping a level sightline.



Pulling Ourselves Off of a Chair-Back — "Sitting Up Straight"

Of course, when we sit back in a chair or in a slump, eventually we will be getting up. To move ourselves forward from our customary anchored-back position requires the strenuous effort of these same ilio-psoas muscles — to pull the pelvis and lower torso out of its backwards slump. Additionally, to undue the over-flexing of the upper spine and straighten our big “C-curve” requires the strenuous effort of large erector spinae muscles, running the length of the back. These muscles then hold our bodies in a vertical position until they exhaust. Of course, no one can sit up straight for very long under these conditions. When we tire, we simply let go of the muscular effort and fall backwards again.



Going the Wrong Way

The fact that we sit back with staggering repetition, hour-by-hour, day-by-day, for decades, without awareness, explains why modern society is beset by bad posture and chronic low-back and neck injuries. In innate sitting, our weight moves between the sit-bones and the feet or legs *in front* of us. In habitual/backwards sitting, our weight moves between the sit-bones and the back of the chair. There is no skeletal ground support behind the sit bones.

When we commit body weight backwards, muscular strain and skeletal distortion become our only means of maintaining uprightness. When we allow gravity to take our body mass *straight* down, making contact with grounded skeletal structures directly underneath and in front of us, this enables a completely different kind of uprightness, one that lifts us into verticality with optimal efficiency. (A full description of how innate uprightness works — in words and video — can be found in **Uprighting 101 - A Free Introduction Course** at www.uprighting.com/pages/courses).



Recreational Activities

Fortunately, there are many good things we do for our bodies. As children, many of us take up sports, dance, yoga, martial arts, etc. In these disciplines, we are educated from the get-go about the importance

of weight “distribution.” As athletes and dancers, we do amazing things with our bodies — by effectively commanding our own body weight. But when we leave the field or the dance floor, we leave our body-weight awareness behind — even world-class athletes. We revert to sitting *back*, the way we were implicitly ‘taught’ from birth by our fellow human beings -- who learned it themselves in the same way. The blind leading the blind. We revert because the origin of this core behavior is buried deep in our subconscious, out of our awareness, inscrutable.

Innate Uprighting Recovery

Uprighting/Weight Commitment work is a dual track process that teaches us how to recover our highly evolved, highly efficient innate lifting ability.



Seeing Yourself in Profile – A Game Changer

We’re in the dark about what we do to ourselves as we throw our body mass backwards into a chair-support or into a slump. This is because we have ceded control of our uprighting to our subconscious brain while sitting. Our subconscious brain recognizes that even as we are throwing our bodies backwards we retain the will to keep seeing the world out in front of us. To achieve this end, our brain orchestrates immediate musculoskeletal adjustments so that we keep a relatively vertical neck and head. This gives us the sense that we move backwards *horizontally*. We do not. We are moving back and *down*, and then reacting. Once back against the chair support, with our head and neck relatively ‘up,’ we believe that our whole spine is straight. We don’t recognize the large bend in the spine, our big C-curve. When we look at ourselves in a mirror (seeing only a front view) this big C-curve slump is hidden.

Our distorted view of ourselves is easily dispelled by setting up a web camera so that we can see ourselves in profile as we sit. This is a view of ourselves we never get in real time. The profile camera is an essential tool in both tracks of the Innate Uprighting Recovery process.



Track 1. Witnessing Habit

First, we need to bring into conscious awareness all the automatic, subconsciously generated musculoskeletal activity of sitting-back (described above). We need to actually *feel* it and *see* it. Getting in touch with our habitual way of sitting — and making a deep kinesthetic connection — takes time and repetition. We've been sitting back and *not noticing anything* for oh so many years.



Track 2. Saying Goodbye to Sitting Back

Discovering the Flexing/Extending Cycle

The essence of innate uprighting is simply to allow gravity to take our body mass straight down to earth. Dropping straight down requires no muscular effort at all! Problem is, by sitting-back our whole lives, the only way we know to get vertical is by using ilio-psoas and erector spinae muscular effort that *holds* us in a vertical position. Underneath this held position, we are committing body weight backwards. We've been doing this since we were 3 or 4 years old. It has long since been a *default setting* every time we sit.

To begin learning how to upright *innately*, we must first stop masking our backwards weight commitment. We need to let go of the muscular effort that is holding us in a vertical position, and allow ourselves to drop into the back of the chair or, if on a stool, into a deep slump. **This is an essential first step.**

Then, from this backwards position, we need to rock forward at the hip joints (with the head leading the forward movement, like a bull, to avoid as much as possible pulling with ilio-psoas effort) so that the pelvis and lower torso end up perpendicular to the ground. We need to do this

without straightening the slumped upper spine. The upper spine should be hunched, with the head way out over the knees. I call this shape of the spine our “hangover” -- from a few too many trips to the back of the chair. *This is where our innate uprighting recovery process **must** begin.*

In this position, just by letting our body mass drop straight down, we will immediately experience significant weight-bearing pressure along the inside edge of each foot, prompting a leg muscle reaction that, in effect, bounces us up off the ground.

Innate uprighting is about lifting **front** body weight up and back. This is the evolutionary skill we developed in transitioning from 4-legged to 2-legged uprighting. From years of sitting back in chairs, however, all we *now* know is lifting body mass that is positioned well **behind** our balance points. This habit has us engaging all the wrong muscles, explaining why we can only sit up straight for a very short time. Once we stop committing weight backwards, we will gradually begin identifying guideposts in the body that help us to navigate the flexing/extending cycle that emerges. It is through becoming better and better at tuning into the weight-bearing sensations and muscular activity that manifest during this dynamic cycle that we become able to lift ourselves into verticality easily and efficiently ... always moving, never still.

Conclusion

We struggle with posture not because we're lazy, weak or uninformed. We struggle because, due to sitting back into chairs, we've lost the deep, sensory connection between our body mass and gravity. Instead of responding to gravity in a natural and dynamic way, we try to hold ourselves in “correct” positions, leading to tension and inefficiency. Innate uprighting isn't a position to put ourselves in, but an *action* — a moment-to-moment engagement that lifts us into verticality by working *with*, not against, gravity's pull. No posture tech or ergonomic furniture can restore our natural capacity for effective uprighting — but our conscious attention to our weight commitment can.

In my teaching, I help students recognize and feel the impact of committing body weight backwards — so that they ultimately can allow their body mass to move straight down to earth, where the power of our weight moves through the talus in standing, the sit-bones in sitting. The body then flexes forward where it meets ground contact structures that stimulate a strong and natural extension upwards. It's a slow and steady learning process to re-connect with our innate uprighting ability. It is not a quick fix. But it has a long and lasting upside.

*(A full description of how innate uprighting works — in words and video — can be found in **Uprighting 101 - A Free Introduction Course** at www.uprighting.com/pages/courses).*