

Learning Conscious Weight Commitment

By Michael Protzel

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Sitting beautifully at 6 months

This document is primarily for people who have attended one of my workshops. It summarizes the essential theory of weight commitment and reviews the kinesthetic experiments conducted at the workshop. This document may also assist website visitors seeking practical instructions. Please be advised, however, that it will not be easy to expose weight commitment habits and to re-learn innate uprighting through words and pictures alone, without direct person-to-person instruction.

Nothing in this document should be construed as medical advice. I am not a doctor. If you are concerned about a physical problem, you should consult a physician.



Not so at 5 years

Part II of IV — Weight Commitment & Sitting

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The act of falling backwards in sitting—a society-wide epidemic — results in our motor system performing *on a routine basis* tasks for which it has not evolved. In sitting back, we lose kinesthetic connection with the force of our falling; we distort our skeleton; we weaken our muscles; we become more susceptible to injury; and we make the act of sitting a lot more difficult.

Falling backwards in sitting over-extends the hip-joints. As we over-extend the hip-joints, we flex the upper spine. The further back we fall, the more we flex. Then, in order to keep a level head, as the neck moves forwards, we tense neck muscles to rotate the skull backwards.

A lifetime of sitting back in chairs, sofas, car seats, etc. has made it virtually impossible for us to ‘sit up straight.’ We can do so only in a very inefficient manner — and for a very short time. Coming from a backwards orientation, sitting up straight requires us to vigorously tense hip flexor muscles (to pull forward into verticality a backwards-tilting pelvis and lower spine) and large erector spinae muscles (to lift an over-flexed upper spine). And so long as we want to keep sitting vertically, we will need to keep these tensings going.

To re-learn to sit up straight innately we must give up our habitual way of doing it. By mindlessly repeating this failed approach, we reinforce it and remain stuck in it.

Reversing Habit — Re-Learning to Fall Straight Down and Tip Forwards

Falling backwards in sitting is ‘what we know’ and ‘what feels right.’ We haven’t a clue how to manage ourselves when we need to sit and orient forwards. If you need convincing, just watch people eating at the dinner table or writing at a desk. To regain our innate ability to sit up with minimal effort, we need to re-learn how to use our own body weight to our advantage.

Step 1: Sit on the front edge of a stool or a firm, flat chair-seat, with only your sit-bones — not the backs of the thighs — touching the seat. Place your feet comfortably on the floor in front of you.

Step 2: Let yourself slump — a nice, big slump — so that your pelvis and lower torso fall backwards and your upper torso, head and neck fall forwards. It’s easy. We have all done it millions of times. Notice that as you fall back, ground contact lessens under your feet.

We make a mistake by judging this slumping as bad, rather than as the inevitable by-product of repetitively falling backwards. Judging it ‘bad’ puts us in a bind. We decide that we should be *not doing* this slump. But to ‘not do’ this slump, we use means that keep us trapped in habit. We *hold* ourselves up, even though we don’t feel ourselves doing it. The muscles used to accomplish this task soon tire, forcing us to literally fall back into habit. Then, to sit up straight, we need more heavy lifting. It is a vicious cycle. Here’s a different approach:



Forward flexing of upper spine, and tilting back of the head, are survival-based, compensatory reactions to keep the head level in the midst of our backwards fall. To ‘sit up straight’ under this condition requires substantial effort that cannot be sustained.

← = Trajectory of fall

Step 3(a): Leaving yourself in a slump (doing nothing to straighten your spine), rock yourself forwards on the sit bones. You can do this by imagining that someone is pulling you by the hair or by imagining that the top of your head is leading the movement. The important thing is that you don't want to pull the pelvis forward by using the ilio-psoas muscles that arch the lower back. If you notice yourself doing this, this noticing is good. You are exposing your habit. But you want to stop doing it. Let go of this muscle tensing so that you fall backwards again. Then start over. You also don't want to be yanking up the chest by tensing large back muscles. Again, if you notice yourself doing this, stop, and start over. The purpose of this step is simply to get yourself falling forwards and experiencing your weight going into your feet and legs. All the while, you want to retain the slump.

Falling takes absolutely no muscular effort. Once you correct your fundamental backwards fall, you will rediscover the 'tipping point' on your sit bones from which you will naturally fall forwards. Especially so considering you are slumped, with a big forward 'hang-over' of the upper torso, head and neck. (I call it a hang-over from a few too many trips to the back of a chair!) This hang-over will drag your pelvis forward. No need to pull it. As you are moving forwards, you want to direct your weight into your ground-contact points on the bottom of the feet. This will create muscular engagement in the legs.

Step 3(b): Once you feel the weight of your torso coming into the feet and legs, you want to notice that, by 'pushing' your feet gently against the floor you can move the whole torso (still in a big slump) backwards at the hip joints, rocking the pelvis backwards on the sit bones. If you don't notice your body weight creating pressure at the ground-contact points at the bottom of the feet and stimulating activity in your leg muscles, then you are likely holding up-and-back the weight of your torso by straining large back muscles and ligaments. When you are tipping forwards, you should be feeling your weight in the feet and legs.

Just like a ball bounces off a wall, your deep extensor musculature — connecting feet to leg bones to pelvis — can easily 'bounce' the pelvis back on the hip joints. But unlike a wall, the point from which you 'bounce-back' is variable. *You can bounce back beginning at any point you choose.* You can bounce back after having moved forwards only a millimeter (when you become very sensitive). Or you can bounce back after having fallen so far forwards that the head is between the knees. Bouncing back from this far-forward position will, of course, require more muscular effort in the legs. But this is still easy work for the legs — much less work than it takes to extend the legs fully in standing.

Step 4: This is a key step! You want to establish a repetitive motion of tipping forwards and bouncing back — a smooth, steady, pendulum-like, rocking movement of your pelvis (and still-slumped torso) at the hip joints. Forward and back (flex/extend)...forward and back...forward and back...rocking atop the sit bones. It is not important at this stage how far forward you tip. You can vary it, sometimes tipping forward a little, sometimes a lot. *But it is important not to bounce the pelvis back past 90 degrees (vertical).* To be safe, at first don't go beyond 80 degrees. Use a mirror to make sure. Be playful and patient. You are not used to falling forwards while sitting. It may take time to establish a smooth, pendulum-like movement. But since establishing this is essential to innate uprighting, whatever time it takes is worth it. Experiment. Observe. Enjoy the movement. (It might be helpful to put your hands on different parts of the pelvis so that you can feel its movement. It should always be moving, never held still.)

In falling forwards from the hip joints, there is no need to *pull* yourself forwards. Pulling is only necessary when the hip joints are *over-extended*, as after you have fallen back against a chair support. Then you *do* need ilio-psoas muscles to pull the pelvis and lower spine forwards. But these hip *flexors* are not active in innate uprighting. Uprighting is extending. We want to use extensor muscles not flexors.



To keep a level head, we flex the spine as we fall back. The further back we fall, the more we flex.



The ilio psoas muscles have become a part of routine sitting. They work hard to lower us gently toward the chair-support and to yank us off of it once we have anchored ourselves there — producing the common 'sway back' and weakening the lumbar spine in the process.



To re-learn innate sitting, we need to re-acclimate to tipping forwards. This will expose our over-flexed spines, created by habitually falling backwards. 'Slumping' in this way is a means to an end. It is through contacting support structures under us and in front that we activate our deep extensor system that uprights us optimally.

In executing this Step 4, you want to be on the look-out for the re-emergence of this all-too-common muscle tensing. The whole point of re-activating your innate uprighting system is that it allows you to sit and stand with a minimum of effort. If you get the sense that you are pulling yourself forwards, simply stop and slump again so that you fall a little bit backwards at the hip joints. One good thing about slumping is that it releases momentarily your ilio-psoas tension, otherwise you would not be able to move backwards. But immediately upon releasing these muscles and falling backwards a little, you want to tip yourselves forwards as you did in Step 3.



Step 5: As you are establishing a smooth and steady tipping motion, you want to develop greater awareness of the ground-contact points underneath you as you are moving. These points are very important. It is *into* these points that you want your body mass to fall. And it is *from* these points that you will bounce/lever your spine upwards.



Innate uprighting is fueled by our body weight falling between what I call our “back support points” and our “front support points.” These are the points upon which we bear our weight. In the beginning stages of experimenting to find out how to use our weight to our advantage in sitting, it is best to consider our back support points to be the sit bones, and our front support points to be the feet. In the time it takes to fall forward between the sit bones and the feet, the force of our falling builds. Allowing this force to make solid contact with our front support points enables us to capture the force and to transform it into muscular energy — engaging our deepest extensor musculature to upright us optimally.

As you tip forwards (still slumped), you want to notice a build-up of pressure upon the feet. This pressure indicates the capturing of the force of your falling, and enables you — with a little ‘push’ of the feet against the ground — to easily bounce the pelvis up and back. As you bounce back, you want to notice a decrease in pressure upon the feet, and a build-up on the sit-bones.



Step 6: The purpose of Steps 4 and 5 was to gain a basic comfort level with falling forwards and bouncing back, and to begin to observe the important ground-contact sensations involved in the act. Now, you want to use these new skills to fully upright the pelvis and lower torso. For this, it would be best to sit aside a mirror, so that you can see yourself in profile. While still slumping, fall forwards and ‘push’ back a few times, as in Steps 4 and 5. Use the mirror to observe the movement of your pelvis.



Push just enough to rock the pelvis back and lumbar spine into verticality — but no further. (If you go further, you will begin falling backwards, which is your habit, which is what you are trying to change.) Upon reaching the summit, you want to let yourself fall forwards again. You don’t want to hold yourself in a fixed position atop the sit bones. Be aware of the increase in ground-contact pressure created on the feet as you fall forwards. It is awareness of this pressure that enables you to stop the forward tipping of the pelvis most constructively. The ultimate goal is to stop this forward movement as soon as possible. The more sensitive you are to the increase in pressure upon the feet as you tip forwards, the sooner you will be able to stop and begin the bounce-back, and thus the less bounce back you will need.



Look familiar? Students hunched over their desks, writing, bracing their fall with their arms. Notice that although their upper bodies are falling forwards, their pelvis and lower spines show their primary falling direction — backwards.

Lifting the Hang-Over

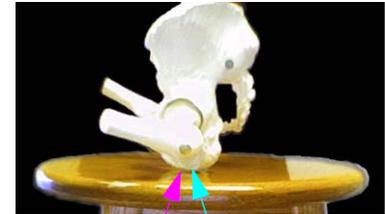
In working to rehabilitate our innate uprighting capability, I have found it useful to consider the movement of a children’s carousel at an amusement park. In a carousel, there is the primary round-and-round movement of all the horses. In sitting there is the flexing of all of our joints — of utmost importance, the flexing of the hip joints (the forward tipping of the pelvis). We have already seen that years of sitting-back has left us with the habit of over-extending the hip joints as we let the pelvis fall back and down. This is the opposite of flexing. We need to observe and correct this. In a carousel, the secondary movement is the up-and-down of the horse; this



Falling Backwards is a Cultural Epidemic!

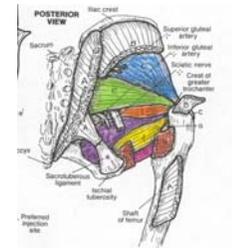
corresponds, in innate sitting, to the up-and-down of the whole spine. We will turn our attention to this now.

Our upper torso is over-flexed — slumped — from our years of repetitively falling backwards. We can learn to constructively lift this forward-flexing-upper-torso in the same way that we learned to ‘bounce back’ the pelvis and lower torso — *by kinesthetically connecting its forward falling to the pressure this forward falling creates on the ‘front support points.’* Initially, with a big hang-over, the front support points are the feet. As we learn to lift ourselves more and more constructively, undoing our slump, our front support points will more and more become the front of the sit bones.



Back and Front Support Points on Sit Bones

Step 7: Sit slumped, falling forwards and bouncing the pelvis and lower torso back and up into verticality, as in Step 6. Keep the cycle going: falling-forwards and bouncing back, falling forwards and bouncing back. Again, using a mirror so that you can see yourself in profile, locate the lowest thoracic vertebra where the forward flexing starts. This should be directly above the sit-bone, or close to it. The timing of the next instruction is very important. As you tip forwards, observe an increase in ground-contact pressure at the feet and the front of the sit bones. When you decide to reverse the movement, and begin the bounce-back, intend to lift the thoracic spine where the forward flexing begins — while also maintaining awareness of the ground contact at the front of the sit bones. Remember to intend to lift only *after* you notice the increase in pressure upon feet and the front of the sit bones. And lift only a little bit. And note that, in lifting the thoracic vertebrae that are directly above the sit-bones, you will also be lifting all the spinal vertebrae above them.



In innate sitting, deep hip rotators, both sides working together, upright the pelvis.

Now comes a key moment. You don’t want to simply hold the spine up. This effort could not be sustained for very long. You need to let the spine flex/fall again. When you do, you will again create extra pressure upon the feet and the front of the sit bones. The greater your sensitivity to this extra pressure, the sooner you will be able to bounce back up. And the easier it will be.



We lift the hang-over most efficiently by recognizing the pressure created at the front of the sit bones as the pelvis tips forwards. It is at the front of the sit bones that we capture the force of our falling. And it is from these points that we want to lift the spine. Remember, we lift the spine *not to hold it up, but to let it descend again and to stop this descent sooner* (bottom photo.)

Repeat this cycle numerous times so that you do it with greater awareness and control. Eventually, you want to stop the thoracic flexing sooner, so that it does not flex as much as it did the time before. You do this by noticing sooner the pressure the flexing creates on the feet and the front of the sit bones

It is vitally important to stay alert to the increase in ground-contact pressure at the front of the sit bones and at the feet that is created by the flexing. The goal is to become more and more sensitive to the ground-contact pressure so that you can stop the fall of your spine sooner and sooner — a little bit sooner each time. Stopping the flexing sooner means the spine is literally not falling as far. Bit by bit, you can ‘jack up’ the entire hang-over in this manner.

In lifting, we do not attempt to activate specific muscles. Ideally, the very small, intrinsic muscles of the spine will do the lifting. But these cannot be controlled directly or consciously. At least, I do not know how to control them. They can only do the lifting when our weight is optimally committed — i.e. when we allow gravity to take us *straight* down to earth. Due to years of habit, this ability needs to be recovered. So rather than thinking of ‘lifting’ specific parts of the spine, I like to think of ‘bouncing’ parts off the sit-bones and feet. I leave it to my brain to figure out which muscles to employ. Weight commitment work is about establishing the optimal *conditions* that enable us to upright with minimal effort.

The beauty of innate uprighting is that no holding is required. Thus, each time, after bouncing up the over-flexed thoracic spine from its lowest over-flexed vertebra, you want to make sure to let it drop again. I recommend that, in working on this, you occasionally put a few fingers upon the bottom of your sternum (breast bone) to make sure that it is moving — actually, to make sure the *spine* is moving/flexing. It should always be moving (if only slightly), never still.

Mis-Applying the Captured Energy — Bouncing Ourselves Up, But Too Far Back

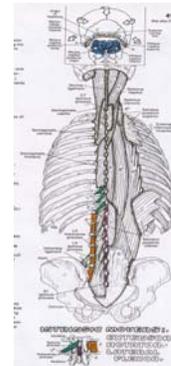
In sitting, we need to break the habit of falling backwards so that the weight of the pelvis/torso can begin to contact our front support structures where the force of our falling can be captured and used to our advantage, activating our deepest extensor musculature to lift us most efficiently. To use the force of our falling wisely is to use it to generate the appropriate musculo-skeletal activity. We apply this force *inappropriately* when we allow the pelvis — or any part of the spine — to move too far backwards. But since falling backwards is our habit — and feels comfortable — this is difficult to notice. Using a mirror is helpful.

I liken segment-by-segment innate uprighting to a relay race in a track meet. A relay race is a team event where the race is divided into four segments, with a different individual on the team running one segment each. As the first runner completes her segment, she hands a baton to the second runner. At this point, the first runner's work is over. If this first runner, however, runs too far without handing off the baton, she would have to reverse her tracks. This would be a major waste of energy. A relay race could never be won in this manner.

In uprighting, we waste the force of our falling if we move any segment too far (i.e. too far backwards). We want to employ 100% of the force of our falling to the act of bouncing ourselves up into verticality. *But we don't want to move any part further than need be.* Energy used to move a segment too far back is energy not being used to lift the segments above it (that are still too far forwards). Plus, when we go too far, and start to fall over backwards, this backwards fall needs to be stopped and compensated for. This is a further drain on our energy. Trouble is, falling too far back feels normal — since we have been doing it habitually for years. It is not easy to notice this mis-direction.

Thus, in the process of lifting the thoracic hang-over, we want to do it vertebra by vertebra, from the feet and the front of the sit bones, using the power supplied by the force of our falling. And once a vertebra has been sufficiently lifted, we want to take special care not to lift/bounce this particular vertebra back beyond upright, but rather to use the force of our falling to lift/bounce the next vertebra above it.

BE ALERT TO THIS OBSTACLE. As already mentioned, our habitual manner of 'sitting up straight' involves tensing the large erector spinae muscles in the back as well as the ilio-psoas muscles in front. These two tensings have, historically, been employed together. And releasing these two tensings go together too. Thus, in attempting to lift the hang-over innately (by using the force of your falling as a power source) you might at times revert to your habitual way of lifting. This is OK. It is to be expected. Habits die hard. The consequence of reverting to habitual lifting, however, is that you are also likely to occasionally, even frequently at first, revert to your habitual way of falling — backwards. This is OK too — provided you notice it when it happens. When you fall backwards, the weight of your upper torso will *not* go into



In falling backwards, we flex the spine to such a degree that to 'sit up straight' we must use large back muscles to do some rather heavy lifting. Not only do these muscles tire quickly — leaving us no choice but to slump or to sit into the back of the chair — but our reliance on them renders useless our deep and powerful intrinsic spinal muscles that connect each vertebra. These important muscles lie dormant, unused.

As we learn to fall straight down, and as we become more and more sensitive to the pressure that our very slight spinal flexing and forward tipping creates at the front of the sit bones, these deep muscles become more and more active in lifting the spine. As they do, our lifting becomes easier and more efficient.

the front of the sit bones or the feet, even though the upper torso is flexing forward. Upon noticing that this is happening, simply start over — go into a slump again, tip forwards and re-establish the smooth, pendulum-like rocking motion of the pelvis, etc, etc.

Be advised that experimenting in this fashion with your 'hang-over' will likely cause temporary strain in neck and upper back muscles/ligaments that have to hold up the hang-over. We are accustomed to lifting this hang-over either by leaning back against a chair-support, or by using large erector spinae muscles lower down the back.

As the Hang-Over Lessens

Step 8. As you become more and more adept at lifting the hang-over — by learning to stop the forward fall of the thoracic vertebrae sooner and sooner — you will notice that the ground-contact pressure created by the force of your flexing upper spine is felt less and less at the bottom of the feet, and more and more on the front of the sit bones. When uprighting fully and optimally, the time it takes the forward-tipping-head and slightly-flexing-spine to 'drag' the pelvis forward — even just a millimeter — allows our body mass (100 or more pounds in a light-weight adult) to fall and generate sufficient force to supply the energy for our muscles to lift us the little bit we have fallen.

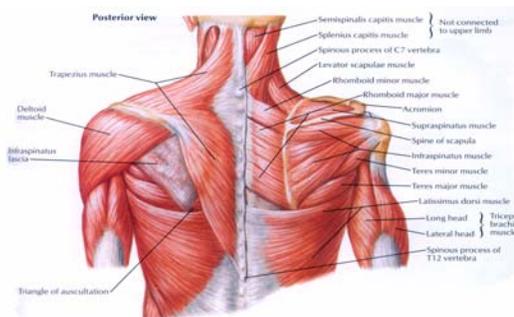
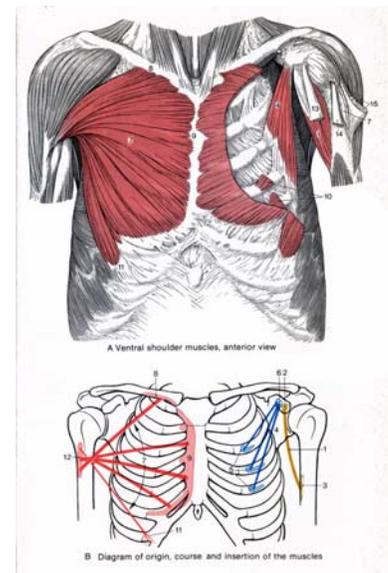
Playfully experiment with lifting the thoracic spine and letting it fall (still using a mirror to see yourself in profile). This will enable you to gradually gain conscious control of your falling. So long as you are not falling backwards, letting the spine flex/fall will create pressure. When starting from fully upright, pressure will first be felt on the front of the sit bones, when you flex just a little bit. The more you flex, the more the pressure will be felt on the feet. Your job is simply to pay attention and notice this pressure. The more clearly you notice it, the more can use it — to stop the flexing and to begin extending.

Widening the Collar Bones

Another consequence of falling backwards in sitting is the narrowing of the collar bones. The weight of the collar bones and shoulder blades (and the arms that hang-down from them) are meant to rest upon, and be supported by, the rib cage. The rib cage attaches to the spine. When we fall backwards in normal sitting, we tilt backwards the rib cage as well as the spine — in effect, pulling the rug out from under collar bones and shoulder blades. Since we use our arms out *in front* of us — and leave them in front even when we are not using them — we have learned to employ pectoralis major and minor muscles, among others, to pull the collar bones and shoulder blades forwards, and rotate the upper arm medially. This muscular activity results in the ends of the collar bones and arms being pulled in towards the center of the body — leaving us with 'rounded shoulders.'

Step 9. After you have learned to effectively upright the pelvis, the lumbar spine and the lower and thoracic spine — as you are working to lift the top part of the thoracic spine — you want to begin to actively widen the collar bones.

The collar bones widen as we extend. But we do not want to *hold* this width. As we allow the spine to flex again, we also want to let go of any effort in the upper back that might have crept in while widening the collar bones., This will likely cause the collar bones to narrow again, since this is our habit. Just let the weight go into the sit bones and bounce them out again. Gradually, you will get better at directing the ends of the collar bone straight down, rather than having them pulled it. They *needed to be* pulled



forwards and inwards when your full body weight was falling backwards. Now that it isn't, it will be easier to direct ends of the straight down. It is the natural direction of all objects on earth.

But habits die hard. You may notice that your habit of contracting pectoralis muscles persists independent of any need, pulling the ends of the collar bones and arms in towards the center. Here is where your sensitivity to the pressure created at the front of the sit bones comes into play. When the ends of the collar bones start caving in, they will be moving *towards the sit bones* (so long as you, as a whole, are tipping forwards and not falling backwards). As they do, there will be a build up of pressure at the front of the sit bones. The sooner you notice this pressure — while maintaining the intention to widen the collar bones — the sooner you will stop the contraction of the pectoralis muscles, which we allow the collar bones to assume their natural width. As you become more and more sensitive, this can happen near-instantly — in effect, bouncing the ends of the collar bones off of the sit bones, levering them apart with minimal effort.

Lifting the Neck

Maintaining a functionally level head is a matter of survival. Our brain is hard-wired to act quickly and decisively whenever head balance is threatened. The neck is the pole upon which the head balances. Head balance is threatened every time we tilt this pole backwards. The very moment we begin to fall backwards in sitting, we must tense neck muscles to ensure head stability. Then, as we keep moving backwards towards the chair-support, we must continually pull the neck and upper thoracic spine forwards in order to maintain uprightness. If we did not make this adjustment, our entire spine would be on a diagonal. We'd be looking up the ceiling.

The fact is, we have been sitting-back repeatedly our entire lives. And we have never noticed the compensatory adjustment to the neck we make every time we do it. This adjustment happens subconsciously — and results in our necks being way too far forwards.

Thus, the final and most difficult step in recovering innate uprightness is to bounce our necks up and back. But this must come *after* restoring the buoyancy of the pelvis, and of the lumbar and thoracic spine. You can't construct the top floors of a building without first constructing a strong foundation and then building up the lower floors.

When we were infants we learned to lift the neck naturally. We had no habit of falling backwards or of flexing the upper spine way too far forwards. All we had to do was drop our weight straight down, neck included. The result was a thing of beauty. Our habit of falling backwards, however, has transformed the neck.

We have well-established means of lifting our too-far-forwards neck. We do so by either falling backwards into a chair-support or by tensing large erector spinae muscles in the middle/upper thoracic area which lift the neck (and chest too) using effort that cannot be sustained.

Otherwise we are slumping — with the over-flexing of the thoracic spine leaving the neck closer to horizontal than vertical. This forces us to gain a functionally level head by tensing the neck and pulling the head back. This is how we sustain a level sight-line.

Engaging in any of these keeps us trapped in an habitual, self-destructive manner of lifting the neck. We gain our end, but at a tremendous cost. Here's another approach.

Step 10. Go back to the very beginning of the sitting process. Let yourself slump forward. Let the pelvis rock forward and bounce back rhythmically. Notice the pressure created on the feet and the front of the sit bones as you move forwards. Using a mirror as a guide, seeing yourself in profile, bounce the pelvis back to upright. Then work your way up the spine, lifting the thoracic spine, and widening the collar bones. (This whole process should take only a few seconds.) Now you can proceed with experimenting with bouncing up the neck. This is not easy. It will require time. And you will need to accept and live with the fact that your neck is too far forward. There is no quick fix for this. It has been a lifetime in the making!

The way to begin is to let go of the muscular effort that is holding/tilting the head up — to let it drop/tilt forward. (To do this, you might think of dropping the cheek bones a little bit.) This will likely result in the neck dropping forwards a bit as well. This is OK. It presents an opportunity to notice the force generated by the head and neck dropping — creating additional pressure upon the sit bones and the feet. This pressure represents additional energy that you want to use to bounce the neck and head up. You don't

want to try to engage specific muscles to lift the neck. You simply notice the ground-contact pressure generated by the dropping of the head and neck, and connect this pressure with your intention to bounce the neck up.

Whether or not you notice an upward movement of the neck, you let the head drop again, and again notice the extra pressure generated upon sit bones and feet again, and again attempt to constructively utilize the energy to bounce up the neck. Remember, don't attempt to activate specific muscles. We don't have the skill to do that. We never did. As infants, we did not micro-manage this process. We sent our weight straight down, and innate uprighting simply happened. We want to re-establish this natural ability. But because we have mis-used ourselves so egregiously for so long, we need to be persistent in this process, yet patient. Results will come gradually, as sensitivity and skill increases.

We want to be able to bounce the neck back and up so that the body of cervical vertebrae 5 (C5) and above regain their rightful place directly above the sit-bones. In learning, over time, how to do this, we want to remember that we do not want to be *holding* the head and neck up. This is the biggest trap, because if we are holding up the spine and are not aware that we are doing this holding, then it is beyond our ability to change. Moreover, this holding cannot be sustained. When we eventually tire, we have no choice but to lean into the back of the chair.

Tipping and Lifting The Head

Under ideal conditions, the head will balance delicately atop the neck.

The bottom of the skull has two little 'sit-bones' of its own. These sit on the atlas, the top cervical vertebra. With a free, innately uplifted neck, the head naturally tips forwards on those 'rockers.'

In habitual sitting, however, the very moment we begin to fall backwards toward the chair-support, head stability must be secured with muscular tension. Then, as we continue to fall backwards, we must keep adjusting the neck forwards to compensate. This results in our necks being much too far forwards. Because of this, the head must be tilted backwards to ensure a functional, level-headedness. Our heads are heavy. Tilting them backwards under these circumstances requires substantial muscular effort.

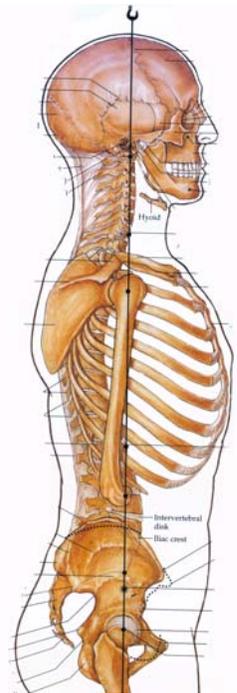
By re-learning to optimally lift the spine so that the neck regains its rightful position along the center line of the body, we make it possible for the head to regain its optimal poise atop the spine.

Conclusion

As we learn to recognize our deeply ingrained habit of falling backwards, and as we regain the ability to accurately direct the trajectory of our falling, and as we restore our sensitivity to the weight bearing sensations at the front of the sit bones and at the feet, we will be transforming our manner of uprighting and our motor coordination generally.

Human uprighting skills have evolved over millions of years. As infants/toddlers, we all mastered these skills — which enable us to recognize the force of our falling before we have time to descend in space more than the tiniest amount. Capturing the force of our falling quickly and fully makes the lifting of pelvis, spine/torso and head easy. Once fully lifted, the head tips forward again, re-starting the process.

This is the innate uprighting cycle at play in sitting.



After lifting the neck so that it is slightly behind the sit bones, we want to let it fall *straight down, not forwards* (as is our compensatory habit from years of sitting back). When we let the neck fall straight down, we will *not* feel it moving. It will be moving directly into the sit bones, which are firmly against the chair seat. But since the thoracic spine is *behind* the neck, the neck's falling straight down will flex the thoracic spine slightly.



Theory, Standing & Walking

I have written three separate documents that set forth weight commitment theory and provide instructions on how to apply this work to standing and walking. They are parts I, III and IV of *Learning Conscious Weight Commitment*.

Part I — Weight Commitment Theory

Part III — Weight Commitment & Standing

Part IV — Weight Commitment & Walking

Michael Protzel came to the Alexander Technique at age 30 with chronic ankle, knee, hip, back and neck injuries that were getting progressively worse. The AT basically saved his life. After two years of private lessons, he trained to teach with Tom Lemens. He was certified to teach the Alexander Technique in 1987, but did not first notice himself mis-committing his body weight until 1992. He has been exploring his falling ever since. Michael maintains a private practice in NYC and northern New Jersey.

Michael was NASTAT News Editor from 1989-1995 and was recipient of NASTAT's first Distinguished Service Award in 1995. He is currently Chair of AmSAT's Professional Conduct Committee, a position he has held since 2001. Michael is involved with other long-term self-observation processes, including psychoanalysis, Tai Chi/Qigong, Carl Stough's Breathing Coordination, Peter Grunwald's vision work and the study of jazz guitar. Michael is also President and CEO of Gann Law Books, one of the few remaining small, independent law publishers in the United States. Gann specializes in state-of-the art legal analysis, both in print and online.

*Michael gratefully acknowledges the contribution of **Maggy Breuer**, who has assisted Michael at workshops and has helped in developing www.uprighting.com, and in writing papers on weight commitment. She too is a certified teacher of the Alexander Technique, a member of GLAT (the German society). She teaches privately and in small groups in and around Mainz, Germany, and is an avid tango Argentino dancer and teacher. Her website is www.alexandertechnik-mainz.de.*