



Shaping Safety

Even very small changes in seven postural elements can show a strong effect on balance, strength—as well as on internal states.

By [Robert Pater](#) | Jul 01, 2017

At this point, does anyone doubt that balance can directly impact worker safety? While it might be obvious that slips/trips/falls are related to balance, so are soft-tissue and hand injuries. The more a person is off balance, the more her available strength is tied up in fighting the pull of gravity—leaving less strength to lift, push, pull, wield tools, or do any other task. And we've seen where some struck-by and caught-between accidents might have been averted if the affected employee hadn't overleaned or was better able to recover sufficient balance.

Spinal "shape" is important here. The shape of the spine simultaneously accomplishes several simultaneous effects: 1) It directly affects body balance. 2) It provides a structure from which to extend strength and control of tools and loads. 3) It strongly influences mental states.

Martial artists quickly learn the value of a flexible, well-structured posture. Besides maximizing aforementioned balance and strength, best posture is a base for safest decisions and moves.

There are three basic spinal shapes a person can assume. Think in terms of three letters. C-shaped ("slumped"), I-shaped ("rigid"), and slightly S-shaped ("natural.") If you've ever seen a skeleton or an anatomy chart, you can probably visualize the natural, mildly elongated/slightly flattened S-curve of the spine.

A slumping, C-shaped spine occurs when the upper body is collapsed over the lower torso. This compresses the diaphragm, thereby reducing oxygen intake and quickly lowering mental alertness and, secondarily, physical energy. Remember that the most important Safety organ in our body is our brain, which martial our ability to sense potential risks, direct attention, weigh options, and make best decisions. Some mistakenly believe slumping is a "relaxed" posture, but it actually creates a level of tension in the upper back and neck that many people have become used to.

To check this, place your hands on the muscles along the neck, then gradually slump in your chair, and notice how muscular tension in the neck increases.

Deep breathing is also difficult with the over-tense I-shaped posture. A rigid, inflexible body also loses the ability to absorb the impact of walking and other normal movements and further often results in increased tension, especially in the neck, shoulders, and lower back. Such rigidity can make you a pushover for outside forces, in the same way that even a heavy plank standing on end can be easily toppled.

Often, I-shaped posture is induced by locking (hyperextending) knees when standing. To check this, place your hands on the muscles running down each side of your spine (spinus erectus muscles), then lock back your knees. Did you notice that tension in your lower back dramatically increased? And that, at the same time, your breathing became shallower? Bearing (posture) and breath and balance are all directly linked.

But strategists believe anything can be turned to their advantage. Even slumping can be useful. When your mind is racing and you can't shut it off, slumping quiets down brain activity temporarily. You'll only need a little such collapsing to decrease mental alertness and space out, though, so be careful not to go overboard. Then, adopt the modified S-shaped posture so that you are better able to make a plan that will change things for the better.

In general, a natural S-shaped posture is the most relaxed and the best for body balance; it also promotes clear thinking and strong interpersonal communications.

If you're sitting while reading this, try leaning forward so that your bottom is at the very forward edge of your seat. Then scoot your hips back until they're supported by the chair. Sit back. Finally, take a deep breath and relax, but without collapsing forward. If you're like most people, you'll find that you're now more alert, more "present," more relaxed, and ready for crucial decisions. Not only can you breathe more deeply, you'll also convey greater confidence to others, as well. There are relatively simple ways to learn how to "find" natural modified S-posture while standing and moving, but this is much more easily shown than described in words.

If you become fatigued when sitting for long periods, support your lower back in a non-slumped, modified-S position with a small throw pillow. This can help reduce back pain and fatigue, help deepen your breathing, and simultaneously encourage a more mentally powerful position.

While I've focused on spinal shape in this article, there are actually seven additional elements of natural and powerful bearing/posture, all of which correspond to our main joints: 1) Ankles/feet, 2) Knees, 3) Hips, 4) Shoulders, 5) Elbows, 6) Wrists/hands, 7) Head. Even very small changes in any of these postural elements can show a strong effect on balance, strength—as well as on internal states.

Controlling all of these eight postural elements is a prime objective of internal martial arts masters. This may seem like a tall order, but because everything in our body is connected, a small effort at shaping the spine will improve our control over all other elements. And it will have a quick and powerful impact on Safety, alertness, and communications.

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