Postural Correction Exercises

Article by **Ali Hussain**, BSc Exercise Science and Health & Master Personal Trainer **April 2010**

This article suggests some practical strategies for improving your posture that may be helpful. It also explains why it may not be worth your time. Posture is probably less important than most people think. If your main issue is unexplained or stubborn aches and pains, there are many options that may be more effective: I recommend an saving yourself from muscle pain.

Bad posture is not a position, but a complex set of behaviours and habits. There is no generally correct way to stand or sit — it depends on the situation. Posture is better described as your response to gravity and other challenges, such as an awkward working conditions, or your own self-inflicted postural strain.

Posture is the product of a complex array of postural reflexes and adaptive responses to postural strains. If you start to tip over, your postural reflexes kick in and activate muscles to pull you more or less upright again. Many things can mess with the function of these reflexes: pain and illness, mood, attitude, strain, stimulation. Over time, they may increasingly pull us not "upright" but somewhere else entirely.

The causes of poor posture — even the definition of it — are not well understood. Some supposedly "poor" postures may be the best possible response to a bad situation (adaptive posture). In such cases, trying to change the "bad" posture is going to hurt you more than help you, and what's really needed is to change the situation.

Some poor posture is much harder to fix, even downright impossible. If your posture is caused by adaptation to a shortened leg bone dating back to a motorcycle accident twenty years ago, you aren't going to have much success changing your posture. The context of poor posture is highly relevant.

Posture is mostly less important than you think

The scientific evidence strongly suggests that posture is not all that important, and difficult to fix regardless. Even obviously lazy postures aren't that much of a villain, in my opinion.

For instance, a leg length difference is portrayed by many therapists, especially chiropractors and massage therapists, as a serious postural problem that is pretty much guaranteed to cause pain. And yet it's been proven that people with significant leg length differences suffer from no more back pain than anyone else.1

Or consider this recent scientific study of coordination exercises for the neck: it showed that the exercises had exactly the intended effect on coordination and posture, but no effect on neck pain at all.2 What's the point of posture exercise if it doesn't actually help with pain problems? Maybe none!

Why do so many people seem get away with poor posture?

You know those people who can eat anything, and they still stay skinny? There are people who can slouch their way through life without any problems at all. It's probably because poor posture just isn't all that important. Posture is only one of many factors that contribute to pain problems, and in many cases it probably isn't contributing at all.

You hear about the importance of good posture all the time, as though it were gospel, but you never hear this: I have seen a lot of patients with reasonably good posture who were in terrible pain, while meanwhile a lot of other clients with terrible posture have had few complaints.

For instance, I have a truly scoliotic patient, an elderly woman with a blatant S-curve in her spine that

Continued overleaf

she has had since she was a child. Despite this obvious postural stress, she has suffered no worse than annoying back stiffness in her whole life. Meanwhile, in my ten-year career as a massage therapist, I had a steady stream of people through my office with severe, debilitating back pain ... and perfectly ordinary posture. What's the difference between these patients?

Clearly, something other than posture is at work here.

I have seen a lot of patients with reasonably good posture who were in terrible pain, while meanwhile a lot of other clients with terrible posture have had few complaints.

Another good example: a client with a true "wry neck." Born with a twisted neck, he is permanently tilted such that his facial bones have remodelled themselves so that his eyes are level with the horizon. (If he straightens his neck — which feels crooked to him — his eyes are alarmingly lopsided!) But, once again, this patient suffers from no more than irritating chronic discomfort., while many people with much more normal head posture are virtually unable to function because of neck pain.

In fact, research has shown that abnormal curvature of the cervical spine is not even closely associated with neck pain!3

Research has shown that abnormal curvature of the cervical spine is actually not closely associated with neck pain.

Physical therapists tend to make too much fuss over extremely minor postural "problems," which match up even more poorly with pain than the obvious postural problems.4 The popularity of such theories generally suggests to me that posture is often a therapeutic red herring, both its importance and "fixability" overestimated.

Posture that hurts

Hopefully I've now convinced you that posture isn't exactly a critical factor in everyone's musculoskeletal health. But that doesn't mean it isn't important at all.

I've sat leaning to the right many times without difficulty. But two days ago I sat down at a bar in a restaurant with my wife, and spent about fifteen minutes leaning to my right while we ate and talked, and I'm still paying for it 48 hours later. My low right back cramped up in a familiar way, which was obviously a result of leaning awkwardly. I remember fidgeting uncomfortably before it dawned on me what was happening.

Posture can certainly cause pain. And when a minor situation like that gets combined with some other piece of bad luck, the consequences can be a lot more serious. And in my career I've seen numerous cases where relatively obvious postural and ergonomic problems did seem to contribute dramatically to pain — and then the pain was relieved when the postural stresses were resolved.

Most of these cases involved a postural strain, as opposed to "bad posture." That is, the patient wasn't just being sloppy with his or her posture, but was struggling with an obviously difficult situation, usually working conditions. For instance, looking up at a computer screen that is placed too high was causing headaches for one of my patients — it's not so much that he had bad posture, but was simply forced by less than ideal circumstances to hold his head in a problematic way. Another great example was a young man suffering severe chronic pain between his shoulder blades that was clearly related to sitting on a stool for hours, looking steeply downwards at a dim computer screen. Several major ergonomic improvements later, he felt much better. One could question whether these even count as "posture" problems! But there are many more examples where the lines between different types of postural strain get pretty blurry.

So, in spite of many scientific uncertainties, I think that cases like this are reason enough to believe that some postural problems are harmful ... and some of them also correctable.

Continued overleaf

Improving posture by force of will

This method of postural therapy is extremely difficult, because posture is defined by the action of unconscious reflexes. While you can always exert conscious control over your posture, you will always revert to the unconscious reflex-controlled pattern the second your mind wanders.

If you are disciplined enough, you can sustain a posture long enough that the reflexes begin to change. But such discipline may have a price that not many people want to pay.

In my career so far, I have only come across a handful of people who seem to have "corrected" postural by force of will: that is, through vigilant attention to standing up and sitting up straight. Unfortunately, in all such cases, not only was it unclear if they had solved any problem that needed solving in the first place, the cure was quite possibly just as bad as the disease: a chronic and substantial rigidity extending through habits of both body and mind. They were, as most people would put it, anal retentive, and severely so.

Granted, these patients were working hard, not smart, and there are better ways to stand up straight. But the straightforward force-of-will method is certainly something that people often attempt.

Improving posture with general activity

If force of will is probably the worst solution to a poor posture, simply participating in a good variety of physical activities may be the best: not only somewhat effective, but a good idea for many other reasons.

A sedentary lifestyle contributes significantly to the degeneration of postural reflexes. NASA discovered this while studying the physiological effects of inactivity. "Use it or lose it" is the basic biological lesson here: organisms adapt quickly to stimuli and stresses, and atrophy quickly without them. Therefore, probably the best cure for haywire postural reflexes is to demand higher functioning from them. Here are some specific, practical examples of how you can do that:

- Increase your activity level. Participate in basically anything that requirements movement: salsa dancing, swimming, golf. Anything.
- Introduce some activity into activities that normally lack it. For instance, sit on an exercise ball or a wobble cushion (a funny little balloon pillow that creates an unstable surface) instead of a chair while working at the computer.
- Take up yoga, Pilates, taiqi, dance classes, NIA, martial arts or any other activity that specifically require coordination and core stability.

Improving posture through ergonomics and eliminating postural strains

Ergonomics is the science of arranging or designing things for efficient use. Poor ergonomics not only creates direct postural strain challenges — such as reaching too high for a computer mouse — but also forces people to learn bad new habits in order to cope.

Extremely poor ergonomic design is usually obvious, but there are many subtle problems as well. Improving the ergonomic design of your office or home could be simple, but not every solution may be obvious, practical or affordable. For example, I frequently recommend that my clients invest in a headset telephone — technology that has only become effective and affordable for consumers in the last few years, and so many people have never even considered this solution. When you're upgrading your ergonomics, try to think outside the box, and don't just pick the low-hanging fruit: the best changes may require some hassle and expense to make.

For instance, I have often seen patients complain bitterly about their office chair. I can't imagine why anyone would put up with a really bad chair for more than about three days. Either the boss agrees to get you a new chair, or you go buy your own. But people balk at asking, or balk at the expense and hassle of running the errand. Talk about penny wise and pound stupid! It's your back — if it's being hurt by a chair at work, change the chair,

Continued overleaf

period, whatever it takes. I once had a client who worked in a fancy architect's office. Everyone had chairs that looked trendy and fashionable but were extremely uncomfortable. Not only did the boss refuse to change the chairs, he also refused to let anyone replace their chair. Solution? Quit.

Discussions about ergonomics routinely overlook the fact that long work days in a chair are just a fundamentally bad idea — no matter how good your chair is. Ergonomics should not be focussed on ways of making people more comfortable with a bad situation — almost a conspiracy against workers — but rather on improving the situation. Conventional ergonomics, when "arranging things for efficient use" — tends to exclude the most important thing in your workstation: you!

Beware: conventional ergonomics solutions may be missing the point, and often get out of hand.

The consequences of ergonomics that ignore you range from the irritating to the traumatic. This fascinating collection of videos of ergonomic disasters has some examples.

For some ideas about "arranging" a few things other than your workstation, see Unconventional Ergonomics: Five creative ergonomics tips you don't hear as much about as the usual stuff.

A typical example of postural taping.

Improving posture by taping

If you have a specific postural challenge, such as a tendency to thrust your head forward at the computer, taping might offer you the best effort-to-reward ratio.

Taping can accomplish the same thing as discipline without the force of will. Simply apply medical tape — available in any drug store, such as you would find in a first aid kit — to the skin in such a way that it becomes impossible to position yourself incorrectly.

For instance, in a case of head protraction, pull the head backwards and apply a length of tape along the spine from the hairline to between the shoulder blades. The moment you try to move your head forward, you will get a nasty yank on your skin. No discipline required!

Taping is an irritating but highly effective method of forcing your postural reflexes to adapt. It is useless for more general or subtle postural degeneracy, however.

Muscle Balance and Function®

Geoff Gluckman teaches a technique of postural correction called "Muscle Balance and Function®".5 I have evaluated this system of treatment and believe that it makes claims that do not have a sound scientific basis and cannot be made with the confidence that he makes them. For instance, his website advertises that "expands the fundamental concepts of physics" — language that is irrelevant to therapy, grandiose and melodramatically overconfident. In spite of such problems, Mr. Gluckman himself is probably a compassionate and skilled practitioner, and his technique is based on an intriguing rationale.

"So, who's noticed an improvement in their pain?"

I remember Mr. Gluckman asking a group of workshop participants whether his technique was working for them. Less than half the participants raised their hands. Mr. Gluckman, however, ignored the poor response, and proceeded triumphantly, as though all of us had raised our hands, "proving" his point. It th as I have seen of ignoring evidence in favour of a preconception. Looking back on this now, I am somewhat surprised that I was ever inclined to teach MBF to my own patients at all!

Mr. Gluckman's idea is that a deviation from an erect posture can be corrected by "exercising in the plane perpendicular to the deviation".6 My interpretation of this is that the body "knows" that a movement in one plane — say, flapping the arms up and down — can't be performed efficiently if you are leaning forward or backward. Hence, every flap of the arms tends to stimulate the reflex that pulls you upright.

It's a clever idea, and I have seen

Continued overleaf

some anecdotal evidence that it may partially does what it promises to do. But applying the principle of MBF is technical: to use it, you would need to seek out the assistance of Mr. Gluckman himself, or of a practitioner certified in his technique (and there are not many of them). For several years I taught a simplified version of MBF to my own clients, but abandoned it due to its "finickiness" and inconsistent results. The failure of MBF to impress me was one of the major early causes of my disillusionment with structuralism. This combination of extreme scientific uncertainty with significant practical difficulties with implementation is a really great example of why "systems" for postural correction are so generally dubious.

Donate $5

Are you keen on SaveYourself.ca? Support it with a donation, large or small. It will help me pay for the hosting fees, at least! Thank you.

Read more about why I ask for donations

Conclusions

Trying to change your posture may or may not be easy or worthwhile, and even the ideal is not always clear. However, if you want to try it and see, your best bet is probably increased activity, especially tasks that require coordination. Taping and ergonomic design may also be extremely helpful, especially with specific challenges. Therapeutic options based on the work of individual teachers/therapists like Geoff Gluckman may have potential and interesting rationales, but are completely untested scientifically.

And force of will probably will not work at all — even if you wanted to be that disciplined!

Simply Fitness London's Ultimate Postural Correction Exercises:

- Postural Seated Bicep Curl
- Postural Plank
- Postural Press Up
- Postural Press ups
- Postural Bent Over Row
- Postural Wall Squat