Does posture matter when sitting?

I am sure you have heard someone say that the reason for your back pain is due to your posture. You might also have been told that if you sit in a slouched position all day, you are placing excessive load and stress on your back, or that your tight muscles are caused by poor sitting posture?

Turns out, however, that there no evidence that supports these statements.

Now I am not saying that if you spend all day sitting at your desk and then try to do something active that it can't lead to pain or injury, but it is likely not due to your sitting posture.

Now at this point I am sure a lot of you are thinking "but wait a second, when I sit for long periods of time and get up my back hurts", or when I sit in an "ideal posture" position my back doesn't hurt as much. You might also be thinking "well I was told that I have a bad posture from looking at a computer screen all day and that is the cause of my neck pain". Perhaps you have hurt your back after sitting all day and then going and doing an activity. Sometimes, that activity can be as simple as bending over quickly to pick up a sock off the floor.

In all of these scenarios it is easy to point the blame on your posture; "You hurt your back because you were slouching in your chair all day". But it turns out however, that sitting in a slouched posture can actually create less load on the spine and the surrounding muscles (Rohlmann et al 2001). In addition, sitting with the forward head position when staring at your computer is not likely to cause more neck pain (Richards et al 2016).

So if it is not your posture, what is causing the neck and back pain?

While there can be a multitude of explanations for why you have neck and back pain - let's focus on the most common ones:

- Holding any posture for extended periods of time can create pain even when sitting in a "perfect posture". The amount of time it takes to feel pain varies from each person and how well adapted one is to that posture. This explains why, after you have been sitting for a long period of time with "bad posture" and then sit up into "perfect posture" you immediately feel better. What is going on here is that you are moving out of that sustained posture. The brain creates pain when it wants to elicit change so when you have been sitting in a position too long the brain creates pain to get you to move.

- Another cause of the posture pain problem is due to not moving enough throughout the day. Most people sit all day and this is indeed very restful for the body and does not load the tissues, but causes greater problems when such a sedentary lifestyle becomes the norm. Here, the issue is that people simply do not prepare their bodies to have the tolerance to do exercise and activity.

- I often have patients come to me complaining that their back is "killing them", for example after playing with their kids over the weekend. And then I ask "well what where you doing the week before?".Most of the time, patients will tell me they just sat at a desk all week at work and then went home and watched TV and went to bed. Is it due to sitting with poor posture that their back is now killing them? No, sitting all week and not getting the body adapted to movement likely caused the back pain. However, sitting in "perfect posture" throughout the day will not change the back pain from coming creeping.

- Imagine only doing bicep curls in your training program during the week and then try to go run a marathon during the weekend. It most likely won't end well, not having done anything to prepare the body and its tissue to adapt to the load are demanded from running a marathon.

Now there is a time and place where certain postures should be avoided to allow the area to desensitize. But that is for another blog post. Some postures and movements should only be avoided for the amount of time needed to recover, not forever. There are also times in which posture and body position do matter, but again for another blog.

As you likely have gathered by now, my point here is that you can stop worrying so much about how you are sitting and instead bring your focus to how much you are moving and dedicating time to being active. Challenge yourself to be a "Movement Optimist", move in all ranges your body allows as frequently as possible. The human body thrives off of movement, through all ranges of motion. So next time you are sitting at your desk and your back hurts, ask yourself: "have I moved recently"? If the answer is no, then get up and move, and see if that helps. The more you move the better you will feel and the better your body will adapt to the stresses you put on it, so get out there and get moving!

References

Loads on an interal spinal flexion device during sitting: Rohlmann A, et al. J biomech. 2001:

Neck posture Clusters and their associations with biopsychosocial factors and neck pain in Australian adolescents: Richards KV,et al. Phys ther. 2016: American physical therapy association.