

THE IMPORTANCE OF POSTURE

I am sure you have all been told to, “Straighten up”, “stop slumping” and “hold your shoulders back”. But, did anyone ever tell you why? I always thought it was about appearance. My mother told me I looked sloppy. Frankly, as a kid I did not care if I looked sloppy! I was a kid. I felt good, was strong, flexible, had energy and thought that would last forever!

Probably, during my high school career, some health teacher tried to explain how my body worked but, honestly, I did not care. At that time, muscles were for lifting hay bales faster (Oh, yes, I grew up on a farm.) so I could go do something else.

It was not until I started experiencing body pain, in the last decade or so, that I wanted to learn what may cause it and what could stop it. I discovered that poor posture (sitting, standing or lying down) makes the back more vulnerable to injuries and pain. If the bones of the spine are misaligned, the muscles, ligaments and joints are all under extra stress.

Our bodies have about 640 muscles and, for optimal health, they must all be equally strong and flexible, and working together. To move a part of our body, at least one set of muscles has to contract, or shorten, while others have to stretch or lengthen. As an example, look at your foot. To point your toes, the muscles down the front of your leg and top of the foot must stretch out longer while the muscles in the back of the leg and bottom of the foot must contract to become shorter. To pull your toes toward your knee, the front and top muscles must contract and shorten and the muscles on the back and bottom must stretch and lengthen.

Now, think about your car. If the tires are not balanced, equally inflated to the correct pressure or the wheels are out of alignment, your tires will wear unevenly and become unusable sooner, your gas mileage will drop and the vehicle will become difficult to steer.

If we put the two images together, it is easy to understand that to walk without tripping ourselves, the foot and leg muscles must work with equal strength and flexibility. For the feet to wear equally and remain pain free, all the muscles in the body must be strong and flexible to hold us upright and balanced.

Think about the position of your spine while sitting. Holding your butt where it is, move your shoulders two inches to the left. Can you feel how the muscles down your left side contracted and the muscles on your right side stretched? If you got in the habit of sitting in that position, those muscles on your left would, lock into that shortened condition as the muscles on your right became rigid in the stretched position. Over time, they would lose the ability to stretch and contract smoothly to keep your spine supported. As they weakened into those improper positions, they would pull your spine out of position.

You would notice muscle pain. First, those muscles would hurt because of the unequal use to hold you in the crooked position. Then, as they weakened, they would hurt anytime you tried to straighten up. The discs, or cushions between the vertebrae, would start to wear unevenly. On the left, the space between the bones would become smaller, compressing the nerves and tissues and restricting blood flow while pushing the fluid in the disc toward the right, making the space wider on that side.

Here the negative progress cycle becomes apparent. The weaker the muscles become, the more out of shape the disc becomes. The more out of shape the disc becomes, the more it restricts nerve and blood supply, weakening the muscles even more. The worse the muscles weaken and the discs become compressed, the worse the posture becomes. The worse the posture becomes, the more the muscles weaken and the discs compress. Yikes! How do we turn this around?

Believe me, I am lazy and would love to say there is a magic pill that will do it for us. However, there is not! The solution is EXERCISE! Stretching movements to equalize the length and flexibility of all the muscles, resistance or weight bearing exercise to strengthen all the muscles so they can hold our bodies in shape and aerobic exercise to increase our circulation and improve our stamina are the big three!

As we work to make our muscles strong and flexible, we can help the process by improving our posture. Stronger muscles will be able to maintain proper posture and maintaining proper posture will make the muscles become strong flexible and balanced faster and easier. Strong muscles holding the spine in proper alignment will relieve the excess or uneven stress on the discs. That will increase circulation to the area so that the discs can return to the correct shape and pressure. The nerves will no longer be compressed or pinched so pain or numbness will decrease. You will sleep better at night and the healing will happen even faster. Your attitude will improve; your depression will go away and your quality and enjoyment of life will return. Ah! That is a positive cycle of events.

When attempting to improve your posture, there are some things you need to remember. The spine is not actually straight. Seen on an x-ray from the front or back, it should look straight, with each bone directly above the one below. But from the side, a healthy spine curves inward under the skull at the neck, outward toward the shoulder blades and back inward again at the low back. These curves absorb shock and help distribute weight evenly over the length of the spine. If the curves are increased or decreased, due to poor posture, the muscles, ligaments and joints have to work harder to support the weight of the head and body.

When standing, the center of the head, the shoulders, and the center of the body, knees and feet should line up vertically, when seen from the side. The natural curves of the spine dictate this. Any change to the curves of the spine will change where the various body parts fall along the vertical line.

To check the curve of your low back, stand with your back against a wall, placing your feet about 6 inches from the wall. Make sure your head and buttocks are against the wall. If your posture is correct, you will have no more than two inches between the small of your back and the wall. If it is over than this, you have sway back. In addition, if you have more than 2 inches between the wall and your neck, the muscles in the back of the neck and back need stretching.

A swayback is more common in a standing position than in a sitting position. The positioning of the pelvis controls the curve of the lower back. The pelvis should be in a neutral position. If the pelvis tilts forward, sway back results. Strengthening the muscles of the back, abdomen and buttocks will reduce sway back and the low back pain it causes.

Shortened hamstrings (muscles at back of thighs) can contribute to swayback and back pain. Wearing high heels causes the pelvis to tilt forward and contributes to sway back. Stretching these muscles and maintaining the pelvis and spine in a neutral position can restore good posture and relieve back pain.

Resting one foot higher than the foot holding your weight will put the pelvis in a neutral position, while standing. That is why saloons have rails along the bottom of the bar. When washing dishes, open the cabinet door and rest one foot on the shelf below the sink. Be sure to alternate your resting and standing feet regularly, to maintain balance in your body.

There is a pelvic tilt exercise, which is especially good for a sway back and can relieve lower back pain. In yoga, the 'cat' is also beneficial. Look for [BACK EXERCISES](#) to correct the problem.

Flat back is more likely to be a problem when sitting than when standing. If the pelvis tilts too far backward, the lower back loses its natural curve. If you sit with your butt forward on the chair and round your lower back so that you touch your middle back against the back of the chair, muscles and ligaments have to stretch too far. This will also cause pain. Lumbar cushions or supports placed behind you, while sitting, will help maintain the proper curve in your low back.

Here is another message from the posture test. Be patient. Lengthening the muscles through stretching exercises must be gradual, to avoid overstretching injuries. Overstretching muscles in the neck and back can result in intense neck and back pain and stiffness.

If your shoulders are rounded, increasing the outward curve of the upper back, you need to stretch the chest muscles and strengthen your upper back muscles. Rounded, or hunched, shoulders are usually the result of slouching. When slouching, the natural forward curve of the neck is exaggerated, which can result in neck pain as well as upper back pain. It is more common to slouch when sitting. Slouching often happens when fatigued, especially when sitting in front of a computer.

Slouching also compresses your diaphragm, which leads to shallow breathing. Proper posture allows proper breathing and sufficient oxygen intake. Getting enough oxygen helps to reduce fatigue and relax muscles of the neck and back.

The back of the ears should be in line with shoulders, chin parallel to the floor. When standing or sitting in an upright position, the weight of your head (about 15 pounds) rests on your entire spine, which acts as a pillar for your head. Poor posture habits such as leaning forward puts the burden of supporting the head on the muscles in the neck. This causes muscle strain and pain in the neck and headaches. Once the neck muscles are strained, leaning your head over, even for brief periods, can cause neck pain. Proper posture allows strained neck and back muscles to heal more quickly.

Many people spend much of their workday sitting. Proper posture while sitting is vital for preventing back pain but even when maintaining good posture, sitting for prolonged periods can tire the back muscles. Take frequent breaks from sitting; take a short walk every half hour to hour or do some stretching and shaking out of the limbs. The human body was not designed to stay in one position for long periods.

The pelvis should be in a neutral position while sitting, also. Some chairs cause the pelvis to tilt backward, decreasing the curve of the lower back. Some people try too hard to sit up straight and actually end up tilting their pelvis forward and arching their back. This increases the curve of the lower back to more than it should be.

If you do not have a chair with a good back support, place a small pillow in the small of the back to correct the curve. Then you can relax against it, knowing the low back is in a good position. Feet need to gently rest flat on the floor while sitting. If the seat is too high, use a low stool to support them. Knees should be level with or slightly higher than the hips.

Neck pain is also common when sitting with poor posture. Make sure the top of the computer screen is just below eye level. You do not want to tilt your chin up or down to see the screen. It should remain mostly parallel to the floor. We often extend our neck to look at a computer screen, sometimes because it is too far away, sometimes out of habit. Stop doing that. Looking upward or looking downward or sideways (which is common practice when viewing a document upon a desk) puts excessive strain on the neck and upper back and causes neck and back pain.

Do whatever you have to do to reposition these items to keep your back and neck healthy. Raise or lower your monitor, desk or chair to get the monitor right in front of your face at the proper distance for your vision. If necessary, get a pair of glasses made that correct your vision at the distance of the monitor. There are tools to clamp documents on your monitor, at eye level. Remember that the eye muscles need exercise, too. Once you get everything within your field of vision try using just movement to read documents now and then, to give your neck a rest.

The arms should hang naturally at your sides. If your computer keyboard is too high, too low or too far away the arms have to be raised or extended, resulting in tense shoulder and upper back muscles.

All of these rules apply to sitting while watching TV, reading a book, writing at a desk or driving.

Lying on one side with knees bent and a pillow between them is the best position for sleeping. Lying on your stomach increases the curve of the lower back, leads to shortening of the muscles in your lower back and encourages sway back. If you absolutely must sleep on your stomach, place a pillow under

your hips to help support the lower back. However, sleeping on the stomach also can strain the neck and is not advisable. Lying on the back with straight legs can cause low back pain. If you prefer to sleep on your back, bend your knees slightly and place a pillow under them for support.

Saggy or too-soft mattresses cause the lower back to sink into the mattress and can irritate the spinal joints, resulting in lower back pain upon awakening. If the mattress is too firm, there will be gaps between the inward curves of the body and the mattress that leave parts of the back unsupported, causing stress on the muscles. The solution is a relatively firm mattress with enough cushioning for comfort. There must be enough cushioning to distribute the weight of the body and eliminate pressure points. If you already own a bed that is overly firm, you can just get a good quality foam topper for your bed. If your bed is too soft or sags, go get a new one as soon as possible.

Whether standing, sitting or lying, change positions frequently for back pain relief or prevention. Holding any position, even a properly supported one, for too long will tire out the back muscles and cause strain and pain. Holding a position in which the spine is out of alignment makes the back even more vulnerable to back pain.

We need to straighten up, but we need to strengthen up to do so. We need to stretch to balance the strengthening and we have to loosen up to do that. To loosen up enough to stretch we have to relax and to relax we need a good brisk walk. To have enough energy to walk we need a good night's sleep...

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