

# Spinal & Posture Correction

Posture is a window to the spine. Postural distortions, like a forward head or a hunched back, show weakened, damaged or injured areas in the spine. Abnormal posture occurs when groups of vertebrae (spinal bones) lose their proper position in the spine, which alters its normal curves.

Ligaments, which hold vertebrae together, shorten around the misalignment and adapt to the abnormal shape of the spine (i.e. abnormal posture). Muscles, which move bones, spasm and cause pain in an attempt to prevent further misalignment of the bones (i.e. abnormal posture). Discs, the cartilage pads between vertebrae, begin to degenerate and thin because of abnormal stresses and strains, which is an additional source of pain. Furthermore, when a misalignment is present for a long period of time, the vertebrae undergo arthritic changes due to the abnormal stress and strains of a prolonged abnormal posture.

## Our approach to posture correction

The Advanced Spine & Wellness approach to posture correction addresses each component of this process with a comprehensive, corrective care consisting of specific postural adjustments, postural exercises and corrective ligament stretching.

In addition to the Orthopedic and Neurological exams, a patient's X-rays are analyzed for proper alignment and curvature and are compared to the published normal values of the Normal Spine model. The degree to which the patient's spine deviates from this model generally determines length of their treatment. Specific factors that determine posture correction treatment length include:

- Patient's age
- Phase of spinal degeneration (how long the problem has been present, which is determined by the presence of bone spurs/osteoarthritis)
- Treatment compliance
- General health of the patient and lifestyle activities.

## Key Takeaways about poor posture & posture correction

The human spine is designed to efficiently resist large physical forces while maximizing muscular strength and spinal mobility.

Bad posture, accidents and injuries deform the normal shape of the spine. Misalignment (abnormal posture) and spinal degeneration (arthritis) result.

Abnormal posture not only puts a great amount of stress on the spinal cord and nerves, but also causes muscle imbalance and diminished body performance.

## How to improve your posture

Good posture is an easy and very important way to maintain a healthy mind and body. When you practice correct posture, your body is in alignment with itself. This can alleviate common problems such as back or neck pain, headaches, and fatigue. Being in good general health and standing (or sitting) tall will also boost your bearing and self-confidence. This article will show you several ways to develop and maintain good posture. Assessing posture can help us locate the problems. The first thing one does when assessing posture is look at the person's gait when they walk. When assessing our posture, one should look bilaterally to see if there is any change from side to side. This includes muscle mass, definition, height of body parts, and any faults in the posture. One should be assessed from the front, back, side, while walking, and while sitting.

## General posture

1.



Identify good posture · Good posture is nothing more than keeping your body in alignment. Good posture while standing is a straight back, squared shoulders, chin up, chest out, stomach in, feet forward, your hips and knees in a neutral position. If you can draw a straight line from your earlobe through your shoulder, hip, knee, to the middle of your ankle—you've got it. To find yours:

- Using a mirror, align your ears, shoulders, and hips. Proper alignment places your ears loosely above your shoulders and above your hips. Again, these points make a straight line, but the spine itself curves in a slight 'S'. You'll find that this doesn't hurt at all. If you do experience pain, look at your side view in a mirror to see if you're forcing your back into an unnatural position. If you do not have pain, then posture should not be altered, because this could cause other problems.
- The spine has two natural curves that you need to maintain called the 'double C' or 'S' curves. These curves of the back are also called lordotic and kyphotic. A lordotic curve is a curve in the lumbar spine, and when there is an increase in angle this is called lordosis of the lumbar spine. A kyphotic curve is present in the thoracic spine, but when this curve exceeds 50 degrees it is called kyphosis of the thoracic spine. These are the curves found from the base of your head to your shoulders and the curve from the upper back to the base of the spine. When standing straight up, make sure that your weight is evenly distributed on your feet. You should feel comfortable in this position in order to correctly assess your posture.

2.



**Train your muscles to do the work.** Exercises that strengthen the muscles across your upper back and shoulders will help you to maintain good posture. You don't need to develop a body builder physique—it's more important to build "muscle memory" so that you unconsciously and naturally maintain correct posture without fatigue. When you lift weights, you should exercise the agonist and antagonist muscles evenly. This means that you should exercise your hamstrings as much as your quadriceps, chest as much as your back, and so on. This will help with correct posture. Try the following, with or without hand weights.

- **Exercise One**

- *Square your posture, head upright, so that your ears are aligned over your shoulders.*
- *Raise both arms straight out, alongside your ears, palms up.*
- *Bend forearms in and back, toward shoulders, in an effort to touch your shoulder blades with your fingertips.*
- *Do ten repetitions with both arms, then alternate ten reps for each arm singularly.*

- **Exercise Two**

- *Align ears with shoulders as in Exercise One.*
- *Raise both arms out to sides at shoulder height, and hold for a slow count of ten.*
- *Slowly lower arms to sides, counting ten as you lower.*
- *Slowly raise arms back to shoulder height, counting to ten as you raise arms.*
- *Do ten reps, constantly checking your alignment with each rep. If ten reps are too many to start, do as many as you can. You should at least feel a slight fatigue in the shoulder muscles.*

3.



*Be a penguin. While you wait for a web page to load or the bread to toast, place your elbows at your side, and touch your shoulders with your hands.*

- *Keeping your hands on your shoulders and your ears aligned, raise both elbows (count one, two) and lower them back down (count one, two). Do as many reps as your wait allows. You'll be surprised how much exercise fits into 30 seconds.*

4.



*Do stretches. This can greatly help if you find that you have a sore back or neck. It's also good to do during the day, if your job requires you to sit for long periods.*

- *Tilt or stretch your head in all four directions over your shoulders (forward, back, left, right), and gently massage your neck. Avoid rolling in a circle, as it may cause further strain.*
- *On your hands and knees, curl your back upwards, like a cat, and then do the opposite. Think about being able to place a bowl in the hollow of your back.*
- *Repeat the exercises a few times each day. Doing them in the morning helps your body stretch out the muscle lethargy of sleep. Done periodically throughout the day, it will help to raise your energy level like that of a heavy workout.*

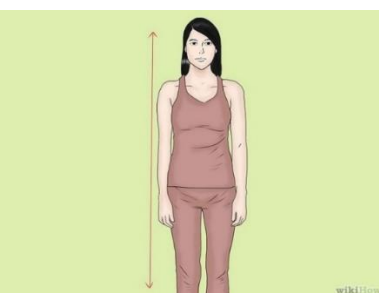
5.



*Practice yoga. Yoga is excellent for posture and for your health in general. It can also improve your balance. Yoga works your core muscles, making them stronger and helping you to keep a proper body alignment.*

*Yoga will also help by teaching you on how to hold an erect posture while sitting, standing and walking.*

## **Standing posture**



*Find your center. Proper standing posture is about alignment and balance. It also lends on air of confidence. Here are some tips for achieving the correct upright posture.*

- *Place your feet about shoulder width apart, the same stance you would use for working out or many other physical activities.*
- *Stand up straight. This is, of course, the key to good standing posture, and bears repeating. As you develop good posture habits, this will become second nature.*
- *Keep your weight on the balls of your feet. When you rest on your heels, your natural tendency will be to slouch. Instead, stand up, and make an effort to stand on the balls of your feet. Notice how the rest of your body follows. Now rock back so that your weight is on your heels. Notice the way your entire body shifts into a "slouchy" posture with this single motion.*
- *Keep your shoulders squared. It may feel unnatural at first, if you have not developed good posture habits. Like standing up straight, however, this will become second nature.*
- *Pull your head back and up. Picture yourself reaching for the ceiling with the top of your head. Keep your head square on top of the neck and spine as you do this. Not only will this improve your posture, you will look taller and leaner, too.*



2.

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Teach your body what it feels like. Stand with your back against a door or wall, with the back of your head, your shoulders, and your butt just touching it. If it feels awkward and uncomfortable, don't worry as you develop good posture habits and train your body, it will feel comfortable.

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## Walking posture



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Start with good standing posture. Walking with good posture is simply an extension of standing with good posture. Keep your head up, shoulders back, chest out, and eyes looking straight ahead.

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- **Avoid pushing your head forward.**

## Sitting posture

1.



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Sit up straight. Many of us sit at a desk all day, it's important to follow these basic guidelines, both for your posture and for your health.

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- **If you work long hours at a desk and have the option, use a chair that's ergonomically designed for proper support and designed for your height and weight. If this is not an option, try using a small pillow for lumbar support.**
- **Align your back with the back of the office chair. This will help you avoid slouching or leaning forward, which you may find yourself doing after sitting too long at your desk.**
- **As with standing posture, keep your shoulders straight and squared, your head is upright, and your neck, back, and heels are all aligned.**
- **Keep both feet on the ground or footrest (if your legs don't reach all the way to the ground).**
- **Adjust your chair and your position so that your arms are flexed, not straight out. Aim for roughly a 75- to 90-degree angle at the elbows. If they are too straight, you're too far back, and if they are more than 90 degrees, you're either sitting too close, or you're slouching.**

2.



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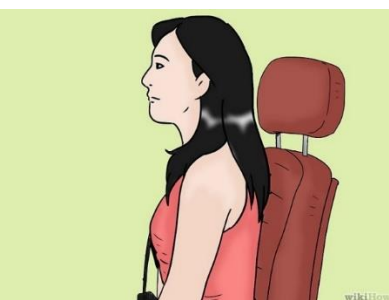
Take standing breaks. Even if you're using perfect posture while sitting in the best chair in the world (and it's debatable whether there is such a thing), you need to stand up and stretch, walk around, do a little exercise, or just stand there for a few minutes. Your body was not designed to sit all day, and recent studies have found that "prolonged sitting is a risk factor for all-cause mortality, independent of physical activity. "Keep moving!"

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## Driving posture

1.

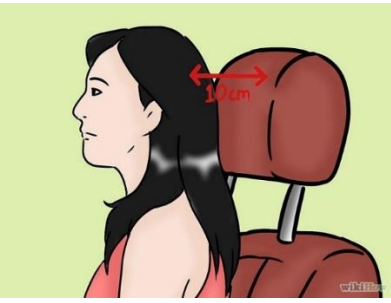


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Start with good sitting posture. Not only is good posture recommended simply for good posture's sake, it's also important for more practical safety concerns. Your car's seating and protective systems were designed for people sitting in the seat properly, and can actually have an impact on safety in the event of a collision.

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- **Keep your back against the seat and head rest.**
- **Adjust your seat to maintain a proper distance from the pedals and steering wheel. If you're leaning forward, pointing your toes, or reaching for the wheel, you're too far away. If you are bunched up with your chin on top of the steering wheel, you're too close.**



Adjust the head rest. The head rest should be adjusted so that the middle of your head rests against it. Tilt the head rest as needed, to maintain a distance of no more than four inches (10cm) between the back of your head and the head rest.

## Carry That Weight



Avoid unintentional back injury. Lifting and carrying presents extra loads and balance problems that are not part of your normal, everyday physical structure, lifting or carrying objects without regard to your physiology can cause discomfort, pain, or in some cases, real injury. Here are some guidelines for proper load-bearing posture.

- When you're lifting something off the ground any heavier than your cat, always bend at the knees, not the waist. Your back muscles are not designed for taking the weight, but your large leg and stomach muscles are. Use them well.
- If you do a lot of heavy lifting, either as part of weight training or as part of your job, consider wearing a supportive belt. This can help you maintain good posture while lifting.
- Keep it tight. The closer you keep large or heavy objects to your chest, the less you use your lower back when carrying them. Instead, the work is done with your arms, chest, and upper back.
- Try holding a 2.30 kg sack of flour, and hold it far out in front of you. Now, slowly pull it closer and closer to your chest and feel the different muscle groups come into play as you do this.
- Balance your load to prevent stress and fatigue. If you're carrying a heavy suitcase, for example, change arms frequently. You'll know when.

## Sleeping posture



Sleep soundly. While you will not be able to consciously maintain a particular posture while sleeping, how you sleep can have an effect on your waking posture.

- Using a firmer mattress will help by maintaining proper back support.
- Sleeping on your back will help keep your shoulders straight, and it is usually more comfortable for the back than sleeping on the stomach.
- If you prefer sleeping on your side, try slipping a small, flat pillow between your knees to help keep your spine aligned and straight.
- Use a pillow to provide proper support and alignment for the head and shoulders. Don't overdo the pillows—too many, and your head can be bent in an unnatural position; this will hurt your posture and you'll wake up feeling stiff, sore, and groggy.

## Train your core muscles



Stay in shape. To keep your entire musculoskeletal system in tune to support your posture, it's important to keep yourself in shape. Try these tips:

- Lie on your back, with your legs bent to about 90 degrees at the knee, and your feet on the floor.
- Pull your belly-button towards your spine and holding it at the end. This is a different type of contraction than crunches (crunches feel like they are more at the front of your stomach, while this feels like it is more inwards and towards your back).
- Hold for ten seconds, repeat eight times. Repeat it daily.
- Maintain the proper posture even if you are getting tired and are not using other muscles like your back or butt muscles.
- Breathe normally during this exercise, as you are training your core to be able to maintain this position during normal activities in daily life.

## Other helpful ways to improve posture



Think string. Always imagine that a string coming from the top of your head is pulling you gently up towards the ceiling. Visualization techniques like this one can guide your sense of proper position and height effectively.



Have someone tape a giant X on your back from one shoulder to the opposite hip. Then put a straight line of tape across your shoulders closing the top of the X. wear this during the day, to help retrain your back. This works really if you holds shoulders back before taping, use wide non stretch tape and ideally change tape each day.



Avoid the slouch when walking. Be sure to try to walk as if you had a book balancing on your head.



Use color. If you need help remembering to keep your posture, think of a unique object or color. Every time you think of that object, check your posture.



Focus on your calves. Let your posture and balance rely more on your calves. Try to feel at an ease attitude, and put a bounce in your step. You'll find that it will free up the rest of your upper body to relax and assume a more upright posture that takes pressure from your back, shoulders and neck, and works on your abs muscles. This is awesome, since strong calves and abs rock!

## Tips

- **Don't tighten up your muscles when you are assuming a straight posture. It will only stress the joints and muscles themselves and this affects the skeleton, therefore your posture and even the way you move and breathe. Try to relax into it, but if you experience back pains, stop it! You are probably causing unnecessary muscle tension. It is important to differentiate between back pains, and muscle exhaustion. Since the correct posture is distant, the muscles needed to maintain that posture might not be strong enough yet. A guideline for this is that if it strains you to breath, realign your posture. Let the breath guide you, it needs to feel good!**
- **If your head is hanging, you can't be properly aligned. Keep your head at the level that allows you to look directly ahead without having to turn your eyes up. If you cannot do this without feeling tension in your neck, this means you are causing unnecessary muscle tension.**
- **Try these steps to get in alignment: push your shoulders forward, then bring them straight up, then bring them straight back, then bring them straight down. Feel good? If your shoulders feel slightly stiff or tense you may have unnecessary muscle tension.**
- **Consider wearing a special shirt designed to aid posture; such a shirt is a training aid that strengthens your back muscles and makes your shoulders work to maintain proper posture throughout the day.**
- **Try to put your shoulders back, chin up, and back straight for five minutes. It may feel strange at first but if you try to do this regularly, your posture can get a lot better over time.**
- **Be patient with yourself. Correcting poor posture can take a long time, especially if you've had bad posture for years.**
- **A great side benefit of keeping your head straight, and your ears/shoulders/hips aligned is an improvement in your self-esteem and attitude. If you walk with your head up, you appear more confident, and feel more confident, which improves your attitude and mood, making it easier to walk with your head up.**
- **Also playing sports greatly affects your posture, where you are constantly moving.**
- **Take up a hobby, like sports or yoga, and these are effective methods that will increase your great posture.**

*{Dr. Karuna Milind, Sr. medical officer (wellness), Health India TPA}*