

# HOME ERGONOMICS GUIDELINES

## How to prevent musculoskeletal strain

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Having been accustomed to an ergonomic work station in the office, the transition of adapting the office environment to the home has posed a challenge with possibly resultant back ache, shoulder and neck strain, eye strain and wrist strain.

Sitting too long, looking down at your keyboard or smartphone (flexed neck or hunched back), slouching can put more stress on certain muscles and joints, forcing them to be overworked and causing them to fatigue with increased tension in the muscles which may in turn cause pain.

Equipment such as your chair, desk, monitor, keyboard and mouse can be adjusted to enable good sitting posture. We have looked into simple changes that can be used with items in your home that can be made adaptable to an ergonomic work station.

**Good chair:** An ideal seated position is one that allows your feet to rest on the floor while your pelvis and lower back fit snugly against the back of your chair, thus you avoid putting undue pressure on your spine. It is imperative to use a supportive chair with a backrest which supports your lower back and the use of a lumbar roll can be placed in the small of your back to help support your lumbar spine's natural forward curve. If you don't have a lumbar roll you could make one from objects in your home.

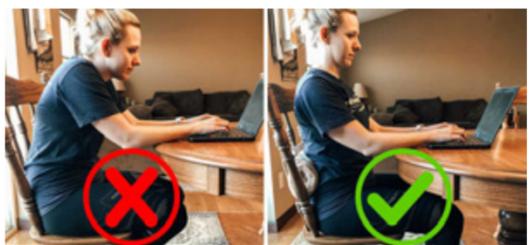
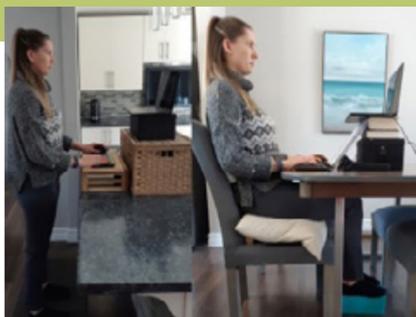


Image source: <https://ptforhealth.com/sitting-posture-working-from-home/>

**Bath Towel roll.** Fold a towel twice lengthwise and then roll it up. Place two rubber bands around the towel to keep it rolled up, and then place it behind your back when sitting to help support your lumbar spine.

**Paper towel roll.** This roll is the perfect size to help support your back and your spine, and it will squish down just enough to maximize comfort while you are using it.

**Use a small pillow.** Place the pillow behind your back when you are sitting to support your spine's normal curvature and maintain proper posture.



A lumbar roll maintains the forward curve in your back while you are sitting and that feels comfortable on your lower back.

Majority of the kitchen and dining tables are too high, thus causing increased stress over the shoulder and neck area. If this is the case and your chair is not adjustable, you can raise this up by sitting on a pillow or cushion.

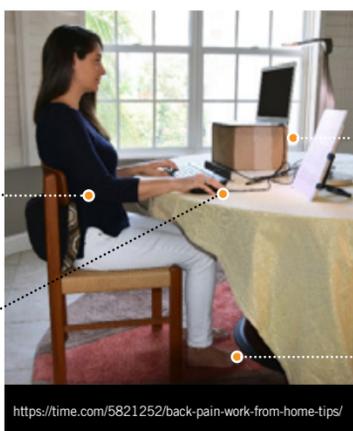
Image source: <https://ottawacitizen.com/news/local-news/working-from-home-heres-how-to-avoid-office-injury-in-your-home-work-space>

### ELBOWS

Ensure that your arms to be bent around 90 degrees, when you place them on your keyboard, with your wrist in a neutral position, ensuring that your shoulders are relaxed, with your elbows near your sides or on the armrests.

### USE AN EXTERNAL KEYBOARD AND MOUSE.

It is essential that the monitor is separated from the keyboard/mouse ensuring your wrist is in a neutral position. Your computer mouse should be on the same surface as your keyboard and should be within easy reach. Stretching to reach any items could cause muscle strain and fatigue



<https://time.com/5821252/back-pain-work-from-home-tips/>

### RAISE YOUR MONITORS

The top of your screen should be aligned to your eye level, thus reducing neck strain. This can be adjusted by using books or old shoe boxes.

### SUPPORT YOUR FEET

An ideal position would be having your feet firmly on the ground. Use an old telephone directory book or step stool to get your knees aligned to your hips. You may also move your seat up or down until your legs are parallel with the ground and your knees are even with your hips.



The temptation to sit in bed with your laptop and a cup of coffee or to take phone calls from the couch with your feet up on the ottoman, leaves you susceptible to many risks that aren't present in a typical office environment.



<https://www.tcenergy.com/stories/2020/2020-03-19-ergonomics-work-from-home/>

### WHEN ON THE BED OR COUCH

Sit with your back to the wall or headboard with one pillow placed horizontally behind your lower back for support and one vertically along the length of your spine for cushioning. Place a pillow under your thighs to reduce pressure on your lower back. Make a desk using a lap tray, placed on top of a pillow. As with a real desk, your elbows should be bent at 90 degrees with your wrists in neutral position on the keyboard and the top of your computer should be at eye level. When working on the couch, the same principles would apply, however do not place a pillow under your thighs, and ensure that your feet is firmly on the ground.

## SOME OTHER WAYS TO HELP REDUCE MUSCLE AND JOINT STRAIN ARE

- **Alternate your position between sitting and standing.** Elevate your laptop on a laundry basket, or placing your laptop on an ironing board (extended to full height) or kitchen counter / breakfast bar still ensuring your posture is upright and maintaining the top of your screen in line or slightly below your eye level. An exercise ball can be used but for no longer than 15-20 minutes
- **Taking regular breaks,** for 1-2 minutes every 30 minutes. Regular visual breaks, looking away from the screen and sometimes at a different distance to the screen is helpful to reduce eye strain.
- **Working area:** Make sure your working environment is well lit, but try to avoid/minimize glare on your screen to reduce eye strain.
- **Exercises and stretches** that specifically target the back's muscles may help reduce chronic back pain. This will also help to increase your back's tolerance to static and dynamic exercises and provide it with good blood flow for optimal tissue hydration and nutrition. Various exercises and stretches are available to target the lower back and nearby muscles that can affect the lumbar spine's strength and flexibility. Should you already be seeing a physiotherapist or biokineticists, then this should be done in consultation with your therapist to avoid damage to your joints.
- **Aerobic exercise** may also help reduce chronic lower back pain. In addition to helping strengthen your back and provide your tissues with essential blood flow, aerobic exercise may also offer the following benefits: Decrease stress on your spine (as exercise helps you to control your weight). Decrease pain levels due to the release of pain fighting endorphins. Increase likelihood of maintaining your functionality. There are numerous options for engaging in low-impact aerobic exercise, including riding an exercise bike or walking. Remember to speak to your doctor first about any possible risk factors such as cardiovascular conditions etc.



In conclusion, while many of us become accustomed to the new normal, working from home may be the future of working and while we don't foresee this coming to the end anytime soon, by ensuring that we follow these tips to make your home office more ergonomically designed, may reduce the overall strain on your neck and back.