



"Exacerbating Circumstances" Series, Part 2: Workplace Ergonomics

By Susan Epperly, B.A., L.M.T.I., C.M.T.

As Clinical Massage Therapists, we consider it part of our job to not only provide our clients with great massages, but to also offer guidance as to how to make the benefits of your massages last as long as possible. And one important aspect of this task involves helping you recognize and understand some of the everyday actions that can activate and perpetuate trigger points, thereby creating and prolonging muscular & postural dysfunction, as well as soft tissue derived pain.

Mind you, it's not that we don't want to see you frequently, but we'd rather see you for routine "maintenance" massages, or just good old "relaxation" or "feel good" massages, rather than seeing you under "pain crisis" circumstances.

Trigger points can form in muscles that are kept in an overly lengthened or overly shortened position for long periods of time; in muscles that are involved in sustained, repetitive actions over long periods of time; in muscles that are suddenly traumatized or required to react to a sudden impact or mishap (as in attempting to keep one's balance and avoid a fall); and in muscles that are simply over-taxed, or asked to perform actions that are beyond their ability, for too long, or too many times.

As you can imagine, the list of ways that muscles can develop and sustain trigger points is endless. There are countless activities that can cause new trigger points to form and those same activities can further entrench existing trigger points after they've already formed.

However, there are a certain number of activities that tend to be among the most likely culprits. (We call them "The Usual Suspects.") And these activities fall into a few specific categories. Therefore, we try to help our clients examine these categories and try to determine whether they can eliminate or amend any of their activities that fall into these categories.

Over the course of the next several months, we will examine several activities that fall into the following categories: "Sleeping Positions;" Ergonomics at Work;" "Driving Positions;" "Recreational Activities / Exercise;" and "Life Happens."
This month, we will explore the second of these categories: "Ergonomics at Work."

According to Berkeley Lab,

"Ergonomics is the science of designing the job, equipment, and workplace to fit the worker. Proper ergonomic design is necessary to prevent repetitive strain injuries, which can develop over time and can lead to long-term disability."

It is estimated that over five million workers sustain overextension injuries per year, which could be prevented by the implementation of proper ergonomics. And we can certainly attest to a great deal of anecdotal evidence that suggests that almost everyone can somehow improve their workplace ergonomics. We try to help our clients evaluate their work stations and / or environments so as to identify positions that are causing undue strain on their muscles, thereby causing muscular & postural dysfunction and soft tissue derived pain.

In this article, we will cover just a few of the most common examples of poor workplace ergonomics that we have helped our clients identify and correct.

Since so many folks spend long hours working at a computer these days, this is one of the most important areas of ergonomics that we try to address. But, we're careful to avoid assuming that "working at a computer" automatically means "sitting at a desk." Many of our clients spend long hours standing while working at mobile computer stations (rolling pedestals), for example, in medical or clinical settings; some work on their laptops at home (while sitting on a couch or easy chair, or laying on a bed), or in their cars; and of course, many do spend the majority of their days working with a desktop computer while sitting in an office chair. While we can't, of course, make suggestions that will be applicable to everyone's situation, we can offer a few "golden rules" that anyone can apply to their own situation.

When creating a new work station, or attempting to improve your existing work station, you should keep the concept of "Neutral Body Positioning" in mind. Follow the link below to see some guidelines from OSHA regarding creating a work station that will facilitate neutral body postures:

<http://www.osha.gov/SLTC/etools/computerworkstations/positions.html>

It's important to make sure that you don't have to look too far downward to see your computer screen. This can put anterior neck muscles (such as the sternocleidomastoid muscles) into an overly shortened position. It can also create "head forward" posture that can become engrained over time. Both of these scenarios can result in headaches. Ideally, you shouldn't have to look any more than 15 degrees downward to see your computer screen.

Another thing to be avoided is holding a phone to your ear by shrugging your shoulder (and usually trying to do other tasks with your hands). This can cause various muscles in your neck, shoulders, and back to develop painful trigger points, the pain from which can be felt not only in those regions, but also in your arms, hands, and fingers.

It's also important to make sure that your work station is squarely in front of your torso. Avoid twisting or turning to one side or the other to interface with your work station.

If you are sitting in a chair, lumbar support is one important area to look at. Having your lumbar spine (lower back) supported will help prevent you from adopting a "slouching" posture. If your chair does not provide this kind of support, a simple, "low tech" way to achieve this is to make sure that your back is as close to the back of the chair as possible, and then place a pillow behind your low back.

Also make sure that your thighs are flat on your chair pad (avoid sitting on one foot, or sitting cross-legged in your chair, which can make the gluteal muscles prone to trigger points), and that the front edge of your chair pad is not cutting into the backs of your thighs (forming trigger points in your hamstring muscles).

Your feet should be flat on the floor (or on an elevated platform, if necessary). If your feet are dangling (not touching the floor at all), or if only your toes and / or the balls of your feet are touching the floor, your calf muscles are likely to develop trigger points (which can send pain into your calves, feet, and heels).

Many clients who use a desktop computer, and spend most of their workday sitting in an office chair, rest their arms on the chair's arm rests while typing, mousing, and doing other tasks. Arm rests on an office chair can be an important element in proper

ergonomics, however, they can also present a major problem if they are not adjusted properly. When sitting in your office chair, and resting your elbows and / or forearms on the chair's arm rests, try to notice whether your shoulders are elevated. Setting a mirror in front of you, or having an officemate look at your posture may be helpful in determining whether this is the case.

If the arm rests are adjusted too high, your shoulders will be pushed up toward your ears when you rest your elbows and / or forearms on the arm rests. Even though the muscles that elevate your scapulas (raise or "shrug" your shoulders) are not actively working to hold your shoulders up (that is being done by the arm rests), the fact that those scapula-elevating muscles are being allowed to spend hours on end in a shortened position makes them susceptible to developing painful trigger points. And, furthermore, once those trigger points have developed, allowing those muscles to remain in a shortened position perpetuates the existence of the trigger points.

If you do have arm rests on your office chair, make sure that they are not positioned too high. Your shoulders should be in a neutral position when your elbows and / or forearms are resting on the arm rests. And furthermore, your forearms should be more or less parallel with the floor when they are resting on the arm rests.

Follow this link for another great resource from OSHA. It's a checklist for creating a safe and comfortable computer work station:

<http://www.osha.gov/SLTC/etools/computerworkstations/checklist.html>

Of course, regardless of how conscientious you are in creating an optimized work station, you may still be susceptible to repetitive use injuries if you are performing the same task over & over again for long periods of time. For this reason, factoring breaks into your workday is very important. Even "micro breaks," wherein you do some simple stretches while sitting in your chair or standing in your cubicle, can go a long way in avoiding repetitive use injuries. Feel free to ask us about some quick and easy work place stretches during your next visit. We'll be happy to provide you with some examples.

Of course, it can be difficult to remember to give your body periodic rests, especially if you tend to become particularly engrossed in your work. Artistic, creative, or academic endeavors, in particular, can tend to be all-consuming, and sometimes, before we know it, several hours may have passed without ever getting up from our chair. One simple, low-tech solution to this dilemma may be to simply set a periodic timer on one's computer, phone, or other timer device that simply serves as a reminder to take a quick break to stretch, move, and recharge (perhaps every 30 minutes, or at least every hour).

OSHA also has some valuable information to offer regarding repetitive use injuries, as well as some of the signs and symptoms of musculoskeletal disorders. Click here to read more:

<http://www.osha.gov/SLTC/etools/computerworkstations/more.html#signs>

We have discussed a lot of computer-related concerns here, and of course, we realize that not everyone's work environment involves the use of computers. We have clients who work in all kinds of unique settings, using various types of equipment, and using their bodies in countless different ways throughout their work days. Since it would obviously be impossible for us to cover each & every possible scenario here in this article, we encourage you to bring your own unique concerns to us, and we can help you identify what types of activities you may need to address and amend to minimize your risk of repetitive use injuries, musculoskeletal disorders, trigger points, and soft tissue derived pain.

We're always happy to help you support the bodywork that we provide by identifying lifestyle changes that may be beneficial for you. While we understand that "dialing in" one's work station can be quite a challenge, we'll be happy to help you optimize yours for reduced pain and discomfort. Just ask us during your next visit, and we can work together to help you get the most out of your massages!

Copyright 2010, Susan Epperly, B.A., L.M.T.I., C.M.T.
www.tigerlilystudios.com