

Ergonomic Checklist and Home Office Do-it-Yourself Best Practices

Everyone has been navigating the challenges of remote work during the pandemic. As we move to a new normal way of operating which may include hybrid working arrangements, it is critical to ensure our employees have all of the resources they need to create a safe and productive home work environment. With hybrid work continuing indefinitely, employees can benefit from health-conscious and innovative ideas for their work-from-home arrangements. Below you will find guidance on how to work from home to reduce fatigue and increase engagement and productively.

If you have pain or are physically uncomfortable with your home office set-up, MEMIC, our insurance carrier's Loss Control staff, is available to deliver ergonomic assessment services remotely, free of charge, including [ergonomic assessments](#) for your home workstation.

Implementing Ergonomic Basics

Ergonomics is the process of designing or arranging workplaces, products, and systems so that they fit the people who use them. Ergonomics aims to improve workspaces and environments to minimize risk of injury or harm. The goal is to create safe, comfortable, and productive workspaces by bringing human abilities and limitations into the design of a workspace—including the individual's body size, strength, skill, speed, sensory abilities (vision, hearing), and even attitudes. Adhering to basic ergonomic tips will go a long way in reducing the risk of injuries and musculoskeletal disorders, and increasing comfort level, without compromising productivity.

Ergonomic Tips

1. Adjust the chair or seat height so that the thighs are approximately parallel to the floor with the feet resting flat on the floor or on a footrest. The seat pan should not compress the back of the thighs.

2. Adjust the seat back so the lower back (lumbar area) plus mid-back is well-supported. Adjust the seat back height, angle and tilt tension accordingly, and sit back in the chair.
3. Ensure that the ASDF row of the keyboard is at the elbow height for a sitting or standing workstation.
4. Ensure forearms are approximately parallel to the floor; adjust the keyboard and mouse tray or desk height accordingly.
5. Ensure wrists are straight and the hands are in line with the forearms; adjust the height and position of the keyboard tray to keep wrists flat.
6. Keep elbows near to the sides; adjust armrests so that the weight of the forearms rest on the arms rests. Avoid hunching the shoulders forward.
7. Reduce strain on the neck by placing the monitor at or slightly below the height while seated or standing.
8. Ensure the monitor is placed 20-40 inches (about an arm's length) away from the eyes. The monitor distance should be about 20 inches when using a small screen or a laptop screen and further away as the screen size gets larger. Dual monitors should be positioned closely together and at the same height and distance so that the eyes do not have to refocus, and the head does not turn significantly when looking between the monitors.
9. Take micro-breaks and follow the 20-20-20 rule. The 20-20-20 rule is to take a 20 second break every 20 minutes by looking at things at least 20 feet away. This will help reduce eye strain.
10. Change your posture and take stretch breaks throughout the day. Schedule work and strategically place peripherals so you avoid the prolonged seated position (i.e. placing the printer in another room would require a micro-break to get up and walk).
11. Frequently used materials and equipment should be located close to the front of the body (primary work zone) to avoid twisting and reaching.
12. Create good task lighting when working on printed materials, and use focused, diffused light for computer work. If the monitor is placed next to a window, the window should have a covering that prevents direct light on the monitor screen, or the monitor should be placed at a right angle to the window. To avoid eye fatigue and dryness, adjust the tilt of the laptop screen to minimize screen glare. Use an anti-glare screen only as a last resort.

Seating

The objective of ergonomic seating is to facilitate proper posture, reduce fatigue, and improve individual efficiency. Seats without any adjustability can lead to poor working postures, which increases the risk of musculoskeletal disorders or body discomfort. Some degree of static muscle loading, where the same posture or position is held for an extended period of time without proper support, will occur due to lack of adjustability.

It is important to consider a few questions when selecting the right seating:

Does the chair allow a neutral seated posture?

How easy is it to make these adjustments?

Does the seat provide lumbar support?

Is the lumbar support of the chair adjustable to the necessary height?

Does the seat have adjustable armrests?

Do the armrests adjust so they support the arms in a neutral posture when the shoulders are comfortably at the sides?

Table / Desk

The workstation should be capable of holding the equipment needed to perform the work. There should be adequate room for a laptop, external keyboard, and mouse, as well as a monitor or any reference material that may need to be easily accessible. The working height of the desk or table should be stationed so that the ASDF row of the keyboard is at elbow height.

When seated, the feet should be flat on the floor or on a footrest. Avoid glass topped tables and desks due to the glare. When using a laptop, place it on the desk surface and adjust the arm rests on the chair to fit the seated elbow height. Raise the seat of the chair to ensure the elbows are even with the desk. Arrange the desk lamp so that the light is not directed to the eyes. Stay away from the sharp edges of the table to avoid pressure points on the wrists and arms.

External Accessories

When working on a laptop for more than twenty minutes, an external mouse is probably the single most important accessory. When using an external keyboard, there is flexibility to move the laptop monitor to an ideal position for a neutral neck posture. This allows more comfort for the arms, wrist, and neck, with the independent adjustment of both the laptop screen and the external keyboard. Make sure the top of the monitor screen is aligned with the user's seated eye height (when the user has no glasses, wears computer glasses, or wears single prescription lenses). If progressive, bi-focal, or tri-focal lenses are worn, position the monitor so that the neck is neutral (straight) while looking through the glasses to view the monitor. Proper monitor alignment can be achieved with a laptop-stand or monitor riser. Position the monitor between 20 to 40 inches away from the face. Ensure the top of the screen is at or below eye level. Give the eyes frequent breaks. If the feet do not rest completely on the floor once the chair height has been properly adjusted, a footrest may be necessary. It should be adjustable in height and inclination and provide adequate area for the feet on the face surface. Make sure the surface is non-skid bearing so that the feet do not slip off the footrest.

Home Office Do-It-Yourself (DIY) Suggestions

During these extraordinary times, individuals working from home can use the following recommendations to continue work safely and productively. Although proper ergonomic setup can be accomplished, it is important for individuals who have a history of related injuries (such as musculoskeletal disorders) to seek the assistance of a certified professional ergonomist (CPEs).

Seating

Choose the best and most comfortable chair possible. The back and lower extremities will not be supported well by a hard chair. Adding a cushion will provide support to keep you comfortable and allow for a breathable fabric interface. In order to achieve a neutral posture, a cushion or memory foam can be used to raise the seat height so that the elbows are closer to the work surface. A pillow or a rolled-up towel can be substituted if the seat does not have lumbar support. If your chair does not have arm rests, consider pushing the keyboard and mouse back slightly to use the work surface for forearm support.

Table / Desk

Select a proper work surface such as the dining table or kitchen countertop. If a sit-to-stand type of work desk is desired, use firm boxes or step stools to place the laptop or monitor on the work surface to attain the appropriate height for standing work. Ensure the edge of the work surface is not sharp. Sharp edges can cause pressure points on wrists and forearms. Lining the work surface edges with a table edge protector could provide a simple solution to this.

External Accessories

Try connecting your personal computer monitor or TV screen to the laptop. Laptops or monitors that are positioned too low can be raised using books, boxes, or reams of paper. Use a footrest if the feet do not rest flat on the floor. Footrests can be purchased or made by using sturdy boxes, reams of paper, step stools, etc. The aim is to have a right angle at the knees and hips with feet comfortably supported. Use a headphone with a microphone for teleconference calls or to reduce outside noise while working. When possible, use the time during the calls to stand up, walk, and stretch.

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