

Ergonomic Considerations in Setting up a Home Office Workspace

Many employers have recently made the decision to temporarily assign their workforce to a home office work environment in an effort to combat COVID-19 exposure. At PMA Companies, we are committed to reducing the stress of workers who must hurry to get themselves positioned at home by providing some important considerations in setting up a safe home workspace. This guide is intended to address some common challenges that include the ergonomic considerations of workstation setup, body positioning, task variability, equipment considerations and telecommuting policies.

Getting Comfortable with Ergonomic Principles

Home is the place we consider safe and comfortable ... and that is the way it should be! It is important to have a work environment that reduces stress and strain on the muscles, tendons and skeletal system that can result from remote working arrangements. Soft tissue injury, commonly referred to as musculoskeletal disorder (MSD), can be a significant exposure when performing home computer work.

Ideally, the same ergonomic principles that are applied in the “corporate” office setting should be applied to the employee’s home setting. PMA Risk Control’s office ergonomic method is based on anthropometrics, a branch of ergonomics that acknowledges that people “do not come in the same size” and need to be accommodated accordingly. For example, National Aeronautics and Space Administration (NASA) statistics demonstrate that:

- Arm reach can vary as much as 10.6 inches
- Eye height (sitting) often varies as much as 9 inches; and
- Knee height between individuals varies as much as 8.8 inches.

PMA Risk Control’s ergonomics assessment tools focus on the measurement of the “body link” segments of workers and adjusts workstations when possible so that workers are at about 90-degree angles or in a position parallel to the floor. Adjustments can be made so that office furniture, keyboard, work surface height and monitor height are based on these body link measurements—with the goal being that the worker is in a comfortable or “neutral” position.



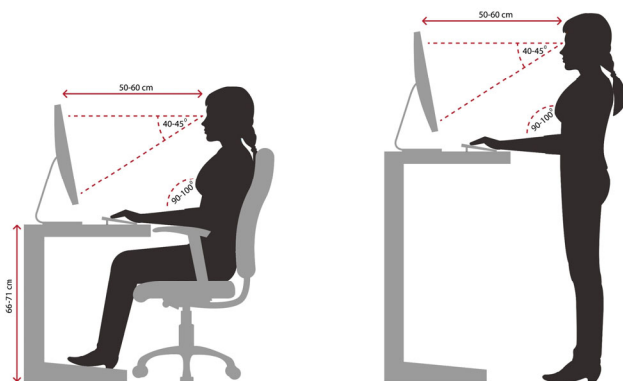
To understand the best way to set up a computer workstation, let's delve further into the concept of "neutral" body position. Working with the body in a neutral position reduces stress and strain on the muscles, tendons and skeletal system and reduces individuals' risk of developing MSD complications.

Neutral Positioning: Computer Workstation Setup

Good examples of neutral working positions include:

- Hands, wrists, and forearms being straight, in-line and roughly parallel to the floor.
- Head is level, forward facing and balanced. Generally, it is in-line with the torso.
- Shoulders are relaxed and upper arms hang normally at the side of the body.
- Elbows stay close to the body and are bent between 90 to 120 degrees.
- Feet are fully supported by the floor or a footrest may be used if the desk height is not adjustable.
- Back is fully supported with appropriate lumbar support when sitting vertical or leaning back slightly.
- Thighs and hips are supported and generally parallel to the floor.
- Knees are about the same height as the hips with the feet slightly forward.

Simply put, there is a balance that is needed for the home worker to maintain a high level of productivity, efficiency and work performance in staying interested and productive. This helps avoid gradual development of injuries and physical discomfort over the long term. Please note that the above ergonomic adjustments can be more difficult if the employee does not have what we would consider a "normal" workstation at home.



OSHA also has a Computer Workstation eTool, [OSHA TOOL](#), which can help the employee create a safe and comfortable computer workstation.



Changing Working Body Positions Regularly

Regardless of how good your working posture is, working in the same posture or sitting for prolonged periods is not healthy. PMA recommends that a worker does not perform or maintain the same body position for a duration longer than 2 hours. This is especially important if the home worker decides to place themselves in a non-ergonomic position such as working from a recliner with a laptop. Changing working position throughout the day can be done in the following ways:

- Make small adjustments to your chair or backrest.
- Stretch your fingers, hands, arms and torso.
- Stand up and walk around for a few minutes periodically.
- Perform some of your tasks while in a standing position: computing, reading, phone, meetings.
- Use alternate neutral body positions.

Don't Overlook Task Variability

Besides workstation setup, employees also need to be cognizant of physiological and psychological elements, as well as the importance of task variability. Task variability relates to our need to avoid repetition and its effects as well as the effects of not moving. This can likely be the #1 risk factor to an employee working at home from an ergonomics perspective. It includes the impact of lack of variety on the cognitive (mental/concentration) load of a person; both too little and too much can have a negative effect on workers:

- Too much repetition of movement: This can lead to the body being unable to keep up with the demands for nutrients and waste removal.
- No movement (i.e. static holding): The muscle may not be able to pump nutrients and oxygen or perform typical bodily functions.
- Too much cognitive demand: The worker may feel unable to “keep up.”
- Too little cognitive demand: The worker may get bored and not be bothered with the work.
- The duration of a task plays a large factor in whether task invariability becomes an issue or not.
- Organizing and planning work ensures that there is variety in the workday and scheduled rest breaks.



Also important is the communication between the employer and employee regarding workstation setup at home, and the equipment needed to effectively telecommute.

Equipment Considerations in Home Workstation Setup

- Typically, the employer will determine, with information supplied by the employee and their supervisor, the appropriate equipment needs (including hardware, software, modems, phone and data lines, facsimile equipment or software, photocopiers, etc.) for each telecommuting arrangement on a case-by-case basis.
- The employee should establish an appropriate work environment within their home.
- Employers may offer employees assistance with workstation design for safe and comfortable work.
- Specific requests for special equipment are typically handled on a case-by-case basis. Usually there is no one budget assigned to the expense for special equipment for employee use at home. PMA Risk Control suggests that before special equipment is purchased, that a full evaluation of the employee's workstation be completed. This involves a measurement of the worker's body links and comparisons to their workstation set-up. Often this assessment can be done by the worker sending pictures and measurements of their home office. In other cases, an on-site assessment will be needed—but in today's environment this may not currently be possible.
- If an employee has a medical condition that requires accommodation, they should submit a request to the company's Human Resources Department. The employee also should ask his or her physician (medical provider) for recommendations regarding the duration of standing/sitting as well as required equipment for his or her needs.



Telecommuting Policies

Businesses may be interested in implementing a policy that goes beyond the scope of having the employee just designate a workspace within their remote work location that is safe and free from hazards. Some employers require that the employee provide pictures of the intended workspace—with follow-up by the company's Safety and/or H.R. department to determine if it is an acceptable space. Some companies require that the employee's workspace be "inspected" before work from home begins, on a periodic scheduled basis thereafter (yearly minimum recommended), and when work area changes introduce new potential workplace hazards. In our current environment, however, this may not be possible. If and when time allows for this process, sample policies may help employers consider how to address the myriad of concerns that employees working from home can present. Below are links to sample policies from Stanford University, Global Workplace Analytics and the Texas Society of Association Executives:

- <https://adminguide.stanford.edu/chapter-2/subchapter-1/policy-2-1-20>
- <https://globalworkplaceanalytics.com/sample-documents/telecommuting-policy-sample>
- [https://www.tsae.org/public/upload/files/resources/Telecommuting Policy and Application sample.pdf](https://www.tsae.org/public/upload/files/resources/Telecommuting_Policy_and_Application_sample.pdf)

PMA is proud of our longstanding commitment to protecting the health and safety of our employees and clients. We are here to support you during this unprecedented time. Should you have a question about your risk control program or need support from one of our ergonomic specialists, please feel free to email us at heretohelp@pmagroup.com.