



Office Ergonomics

Tips for working “correctly”.

What is Office Ergonomics:

Office Ergonomics is defined as the science of fitting a workplace to the user's needs, ergonomics aims to increase efficiency and productivity and reduce discomfort.

Think about the angle of your computer monitor, or the height of your desk. Think about whether your eyes are strained by the end of the day or if your wrists hurt from typing. A sound understanding of ergonomics can prevent most workplace injuries by adjusting tools to the user, putting an emphasis on proper posture to reduce the impact of repetitive movements.

Some trends that have been taking place in the workplace are:

- 17% reduction in square footage per worker has occurred since 1994
- 90% of computer users experience computer vision syndrome
- 64 the average number of hours spent sitting per week
- After sitting for 1 hour there is a 90% decline in the production of enzymes that burn fat.

Ergonomics is defined as the science of fitting the task to the worker to maximize productivity while reducing discomfort fatigue and injury.

Key Elements:

When Implementing Ergonomic Solutions there are 6 key elements to look at and evaluate.

The 6 Key Elements of an ergonomic workstation:

1. The Chair
2. The Worksurface
3. The Keyboard and Mouse
4. Monitor and Document Placement
5. Laptop Considerations
6. Proper Lighting

1. The Chair

Essential Chair Adjustments:

Ergonomic chairs should offer 5 key adjustments:

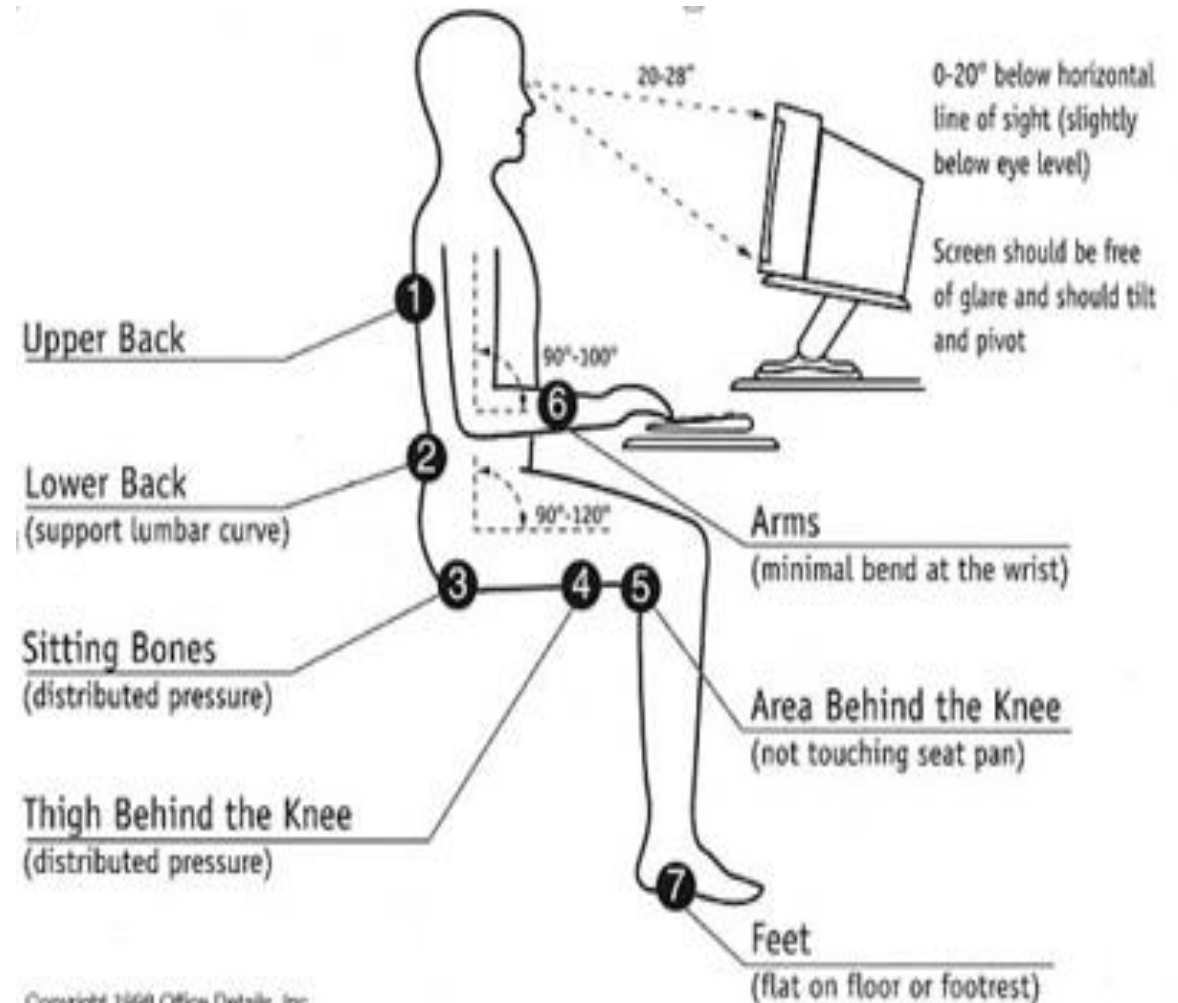
1. **Seat Height**
Adjust height such that feet are flat on the floor and thighs parallel to the floor
2. **Seat Pan Depth**
Allow at least 2 inches of clearance behind the knees
3. **Backrest/Lumbar Height**
Fit the backrest curvature to the small of the lower back
4. **Armrest Height**
Position the armrests such that they are no higher than seated elbow height
5. **Backrest Tension**
Unlock the backrest and adjust the recline tension to support body weight
Backrest should move freely and support user throughout the recline range- ***it is a misconception that sitting straight up is healthy***
Movement nourishes the spine, lubricates the joints, removes muscle toxins, and improves circulation
Benefits of reclining: Reclining distributes the load of the body to the back rest of the chair and minimizes spinal loading



2. The Worksurface

Fixed Work Surfaces

- The standard 29.5" work surface relates to the seated elbow height of a 6'4" male, less than 2% of our working population. Fixed work surface heights result in keyboard positions that are too high and too far away from the body.
- Keyboard tabs compound the issue, particularly for proficient typists who anchor their wrists in front of the keyboard.



3. Keyboard and Mouse

When the keyboard is positioned on the desk, it is too far and too high for most users. Use of an articulating or dropped keyboard support corrects hand and wrist posture and optimizes seated posture. A negative tilt keyboard according to Cornell University affords several benefits when compared to a traditional on desk keyboard positions.

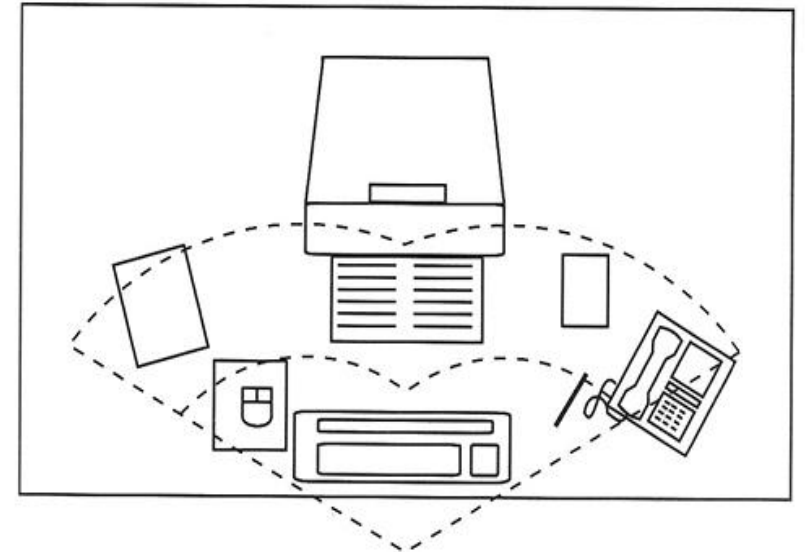
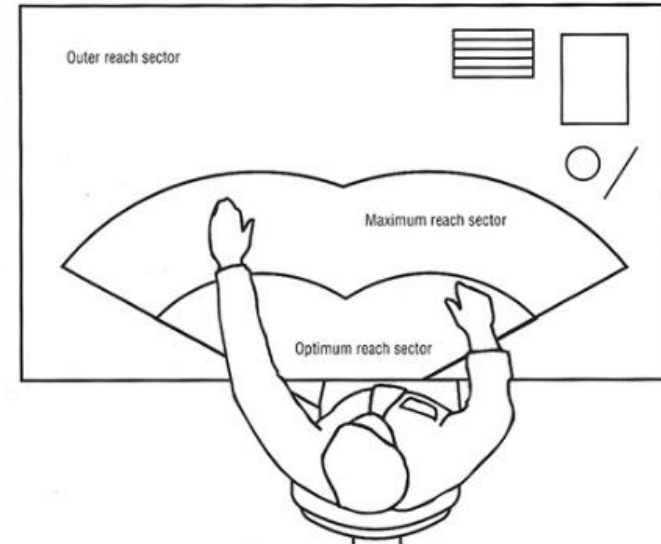
WHERE TO PLACE ERGONOMIC KEYBOARDS:

- Position your keyboard so your elbows and arms remain as close to your sides as possible. Your arms should sit at or below a 90-degree angle.
- **Height**—1–2 inches above your thighs. You might need to use a pull-out keyboard tray.
- **Tilt**—angle the keyboard down and away from you. It is recommended not to use the stands on either side of the bottom of the keyboard.
- **Position**—if you can, place your keyboard and mouse shoulder-distance apart and as level as possible.

3. Keyboard and Mouse (continued)

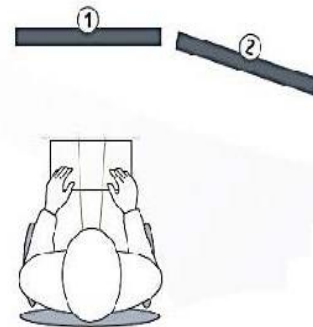
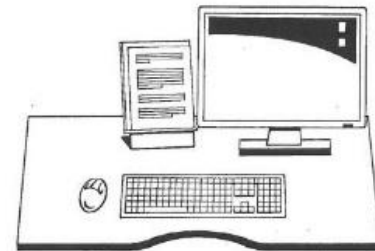
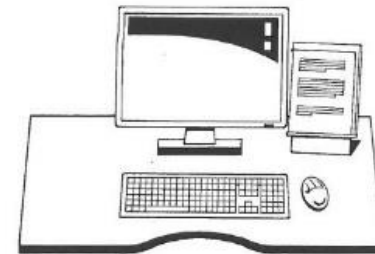
ERGONOMIC MOUSE:

- A good ergonomic mouse fits snugly into your hand and suits the amount of clicking, scrolling, and browsing you do. Ergonomic mice are designed to keep your hand in as comfortable a position as possible so you can work for longer without feeling discomfort.
- Place the mouse as close to the keyboard as possible to reduce the required reach. Make sure that the mouse is just higher than the numeric keys such that the mouse is aligned with the shoulders.
- AVOID anchoring the wrist on the work surface, using a wrist rest, or pivoting at wrist.
- DO consider switching hands, moving your entire arm, using a size appropriate mouse to your hand size.
- The keyboard and mouse should be close to hand, so you do not have to reach for them. Keyboard should be on a flat surface. When you are typing or moving the mouse, keep your wrists straight and your arms close to your sides



4. Document and Monitor Placement

- Align the top of the monitor at or just below eye level.
- Place the monitor at least an arm's length away while reclining.
- Center keyboard spacebar and monitor with the midline of the body.
- The optimum viewing distance should be 20-30 inches, minimum distance is 16 inches.
- If utilizing multiple monitors align them at the same height side by side and angle inwards.
- Bi-focal users should have the lower edge tilted upward.



4. Document and Monitor Placement (cont.)



- Many office workers need to refer to documents as they type. Lying these papers flat on the desk or beneath the monitor can cause neck and back strain, as you bend and twist to read the documents. Using a document holder (also called a copy holder) creates a viewing angle that enables you to work with a straight neck and proper posture.
- Your computer monitor should be in your direct line of sight, about 20–30 inches away from you. The top of the screen should be at or slightly below eye level. The monitor should be tilted at a 10–20-degree angle, positioned to avoid glare from bright light.
- Keep the items you use most frequently, your telephone or documents within easy reach.

5. Laptop Considerations

- Utilize a separate keyboard and mouse on an articulating keyboard support allows for proper hand and wrist posture if possible, during long term utilization.
- An adjustable laptop holder or an external monitor attached to a flat panel monitor arm corrects monitor position and improves upper body posture.

6. Proper Lighting

When lighting is only delivered to a worksurface from the ceiling, there are two major issues.

- Monitors and documents have completely different lighting levels
- Individuals task lights have completely different lighting levels

Utilizing dual source lighting, position a task light opposite your writing hand and below your eyes. Do not direct the light on your Monitor. Be sure to direct the lighting across the viewing area.

How do I set up my office ergonomically?



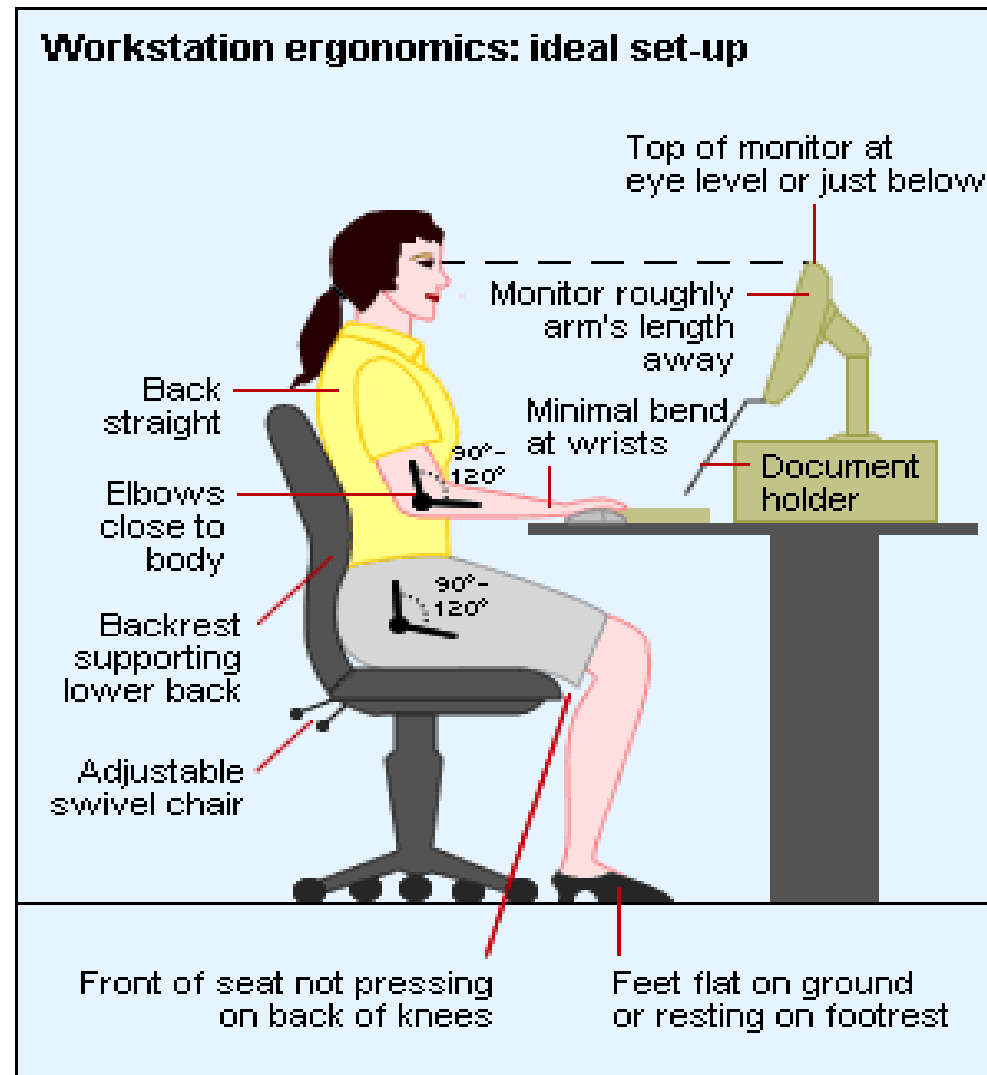
Your office chair should:

- support your spine and lower back
- be set at a height that enables you to keep your feet flat on the floor (or on a footrest)
- have arm rests on the chair

Your desk should:

- allow room for your knees, thighs, and feet
- be raised or lowered to a level that keeps your keyboard and monitor at the correct height

Tips for setting up your home office:



Conclusion:

Many of us and our team members have been working from home for a few weeks now and may continue to do so for a while longer. We all may be starting to feel some aches and pain. Now is the time to take action to ensure we are supported and working comfortably in our home workstation or office to reduce the risk of pain and injury.

Review your risk factors, signs/symptoms, and how to attain an optimal posture while working.

The concepts reviewed in this presentation are applicable at home but also in the office setting.

Contact



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