

# Ergonomics in action

The tie between comfort and productivity



## Great for your comfort, even greater for your bottom line.

HP funded over a decade of pioneering studies to better understand the influence of computer monitor placement on neck, shoulder, and back posture, vision and perceived comfort. Improved comfort can mean improved employee health and wellness, resulting in fewer losses from reduced productivity and absences.<sup>1,2</sup> HP Business Monitors offer adjustability options that can benefit both the company and the employee.

People are more  
productive and stay  
focused when they  
are comfortable  
and not hurting.<sup>3</sup>

## Adjustment Options



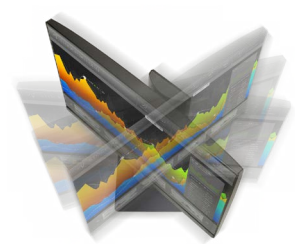
**Height** adjustability up to 150 mm, the highest industry height adjustment. Lower adjustment best suits employees that wear bifocal or multifocal lenses. “Young” eyes tend to select higher placement.



**Tilt** enables a user to eliminate reflected glare and adjust the display perpendicular to the line of sight for comfortable, clear viewing.



**Pivot** adjustment enables the monitor head to rotate 90 degrees into a vertical position, eliminating the need to continually scroll on vertically oriented programs.



**Swivel** allows the monitor head to rotate left or right to comfortably share screen images with others without causing visual distortion, making it easy to collaborate.

## Display line-up



### Z Display

Designed for mission critical reliability with outstanding image accuracy, the Z Displays also provide comfort-focused features:

- Tilt
- Height Adjustment (150mm)
- Swivel
- Pivot



### EliteDisplay E-Series

Features for the enhanced user experience with high resolution and leading ergonomic features:

- Tilt
- Height Adjustment (150mm)
- Swivel
- Pivot



### ProDisplay

Affordable, energy efficient monitors with trusted HP quality.

- Tilt Adjustment



### Value Display

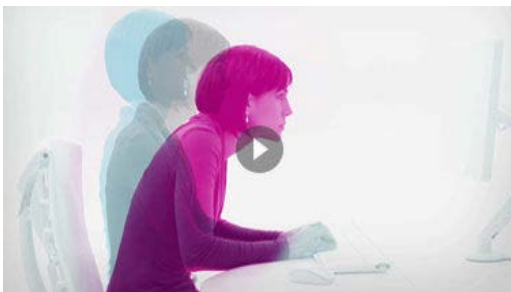
HP's best priced monitors from a trusted brand for everyday computing.

- Tilt Adjustment

**Note:** Height, pivot, swivel, and tilt vary per display. Refer to your display's QuickSpecs for item-specific details.

## Count on HP

When it comes to ergonomic computing, HP has the people and the products that can help users find their comfort sweet spot. For more information and videos on ergonomics visit: [hp.com/ergo](http://hp.com/ergo).



Scan for awkwardness and move



Adjust your monitor



Move from sit to stand



Adjust your chair

## Listen to your body

**At the first sign of tension**, make a choice of comfort and productivity. Move, move, move – alternate positions of the monitor. Let the comfort of your eyes, neck, shoulders, and back be your guide for **adjustment**. Increase font size, tilt or adjust monitor height as needed.

### Best viewing distance

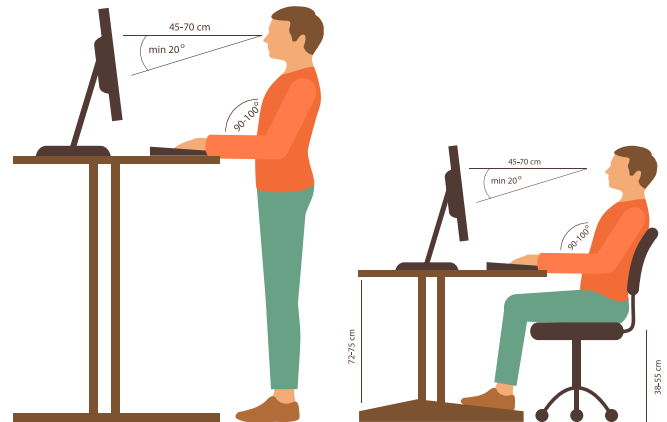
For eye comfort, position your monitor 18 in – 28 in away, choose the right height and take visual breaks.

### Optimal position

HP ergonomic studies show that the optimal position is leaning back versus the upright position.

### Wide range of positions

Keep adjusting all day long. Let the comfort of your eyes, neck, and back guide the height, tilt, and distance of your monitor.



### Adjustability and glasses



HP displays include a rear tilt feature particularly beneficial for multifocal lens wearers. Often times, progressive or bifocal lenses cause a user to peer down through the lower portion of their glasses to keep content in focus. Standard monitor placement causes too much rear neck extension, causing strain. By lowering the display with more tilt, rather than your neck, potential strain points can be relieved.

## Find your comfort zone

**Back:** Adjust display closer in order to sit back and get comfortable.

**Eyes:** Lower gaze angle for increased eye lid coverage. (Don't forget to blink!)

**Shoulders:** Adjust touch display lower and closer. Arm at ~60% reach.

**Neck Rotation:** Adjust multi-monitors farther away.

**Neck Flexion** ("young-eyed" adults): Adjust to 10° to 15° gaze angle to center of display.

**Neck Extension** (for multifocal wearers): Adjust to ~18°+ gaze angle to center of display.





## Ergonomic accessories



**HP Display and  
Notebook Stand**



**HP Adjustable  
Display Stand**



**HP Adjustable  
Dual Display Stand**



**HP Integrated Work  
Center Stands**



**HP Quick  
Release**



**DoubleSight Displays  
Dual Display Stand TAA**



**HP Single  
Monitor Arm**

Monitor, workstation, keyboard and mouse sold separately

## How to buy

HP Website – [hp.com](http://hp.com)

HP Business Monitors – [hp.com/go/monitors](http://hp.com/go/monitors)

HP Accessories and Options – [hp.com/go/accessories](http://hp.com/go/accessories), click “Displays & Accessories”


<sup>1</sup> Allen, H., Hubbard, D., Sullivan, S. (2005). The Burden of pain on employee health and productivity at a major provider of business services. *Journal of Occupational and Environmental Medicine*; 47:658-670

<sup>2</sup> Stewart, W.F., Ricci, J.A., Chee, E., Morganstein, D., Lipton, R., (2003). Lost productive time and cost due to common pain conditions in the US workforce. *Journal of the American Medical Association*; 290:2443-2454. [jama.ama-assn.org/cgi/content/full/290/18/2443#BDY](http://jama.ama-assn.org/cgi/content/full/290/18/2443#BDY)

<sup>3</sup> Bhatnager, V., C. G. and Schiro, S. G. (1985), Posture, postural discomfort, and performance, *Human Factors*, 27, 189 ± 199. Kromer, K. and Grandjean, E. 1997, Fitting the Task to the Man, n, 5th ed. (London: Taylor & Francis). Straker, L. M., Pollock, C. M. and Mangharam, J. E. 1997b, The effect of shoulder posture on performance, discomfort and muscle fatigue whilst working on a visual display unit, *International Journal of Industrial Ergonomics*, 20, 1 ± 10. Midema, M. C., Douwes, M. and Dul, J. 1997, Recommended maximum holding times for prevention of discomfort of static standing postures, *International Journal of Industrial Ergonomics*, 19, 9 ± 18. <http://ergonomicprograms.com/documents/using-mirrors-improve-work-postures.pdf>

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