

# Why ergonomics matter

Whether you're working remotely or onsite, a dedicated workspace can pay dividends, not only for your focus and productivity but for your short-term and long-term health and comfort.

An improperly designed workspace can result in pain, fatigue, and sometimes even debilitating repetitive strain injuries (RSIs). Work-related upper-extremity musculoskeletal disorders (MSDs) account for a significant number of injuries in the workplace,<sup>1</sup> though addressing the impacts of these injuries is equally important when working from home.<sup>2</sup>

Fortunately, there are ways to prevent or mitigate these impacts, such as using PC accessories that are ergonomically designed. Ergonomics is the science of designing products and systems to optimize human well-being and performance. Ergonomists draw on many disciplines from physiology to biomechanics and industrial engineering to design products that are safe, comfortable, easy to use, and help improve productivity while delivering on design and performance.

In creating your workspace, think about how you sit, type, swipe, point, and click—and the tools you could use to do this more comfortably. By raising your laptop screen to eye level, you promote a natural posture in your neck. Address impacts on your hands and wrists by adding an ergonomic mouse and keyboard at the surface level of your desk or table.

<sup>1</sup>Carisa Harris, David Rempel, Alysha Meters, Stephen Bao, Jay Kapellush. Findings from the Upper Limb Consortium Study: new approaches to risk assessment and additional health outcomes. Proceedings of the Human Factors and Ergonomics Society 2019 Annual Meeting. Oct 2019. Available at: www.lni.wa.gov/safety-health/safety-research/completed-projects/long-term-burden-of-carpal-tunnel-syndrome

<sup>2</sup> Marissa Baker. "Nonrelocatable occupations at increased risk during pandemics: United States." *American Journal of Public Health.* 110(8):1126-1132. June 2020. Available at: www.cdc.gov/niosh/docs/2004-146/default.html

### Did you know?

Microsoft holds more than 200 patents for ergonomic mice and keyboards and numerous industry awards. The company's products undergo rigorous design and testing processes, ensuring these tools work seamlessly with your body's natural posture and functions.

Microsoft is one of the few peripherals manufacturers that employs in-house ergonomists to help design, test, and certify its products.

## Choosing a comfortable mouse

In choosing a mouse for your setup, here are a few things to consider:

- **Comfort.** A good mouse design finds the right balance of size, shape, and weight to promote natural wrist position.
- Wired or wireless. A wireless or Bluetooth® mouse provides more freedom and less clutter in your workspace. However, a wired mouse requires no batteries.
- **Size.** You should be able to reach all the buttons without straining or arching your fingers, which can lead to fatigue and discomfort.
- Surface. Depending on your work surface, consider using a mouse with BlueTrack® technology. Microsoft BlueTrack technology has the precision of laser tracking, allowing use of the mouse on virtually any surface.<sup>3</sup>

Microsoft has combined breakthrough ideas in mouse comfort. One key benefit is design that helps get the sensitive area of your hand out of contact with your work surface.

To understand how this works, consider the design of the Microsoft Bluetooth® Ergonomic Mouse.



**Designed to support** your hand and provide just the right amount of surface area for the palm and fingers to rest comfortably.

**Height and shape** are designed to position the wrist and hand to reduce pressure on the carpal tunnel.

**Slant** promotes a neutral, relaxed posture for the wrist and forearm.

**Thumbrest** guides the hand into the correct position and helps maintain it while using your mouse.





Microsoft Sculpt Comfort Mouse



<sup>&</sup>lt;sup>3</sup> Does not work on clear glass or mirrored surfaces.

# Choosing a comfortable keyboard

In choosing a keyboard for your workspace, here are a few things to consider:

**Comfort.** There are three main types of keyboards:

- **Straight** design offers a traditional keyboard, either with or without palmrests.
- **Split** keyboard design helps to position your wrists and forearms in a natural, relaxed position.
- **Curved** design combines the familiarity of a straight keyboard with the ergonomic benefits of a split keyboard.

**Size.** Depending on your workstyle, you might want to choose a larger, more ergonomically designed keyboard. However, for traveling and mobile computing, a compact keyboard—like the Microsoft Designer Compact Keyboard—is easy to pack and still provides ergonomic benefits.

**Wired or wireless.** A wireless keyboard provides more freedom and less clutter in your workspace.

Microsoft offers a variety of ergonomic keyboards designed to suit various preferences in terms of size, shape, and configuration. For example, consider the features offered by the Microsoft Ergonomic Keyboard.



#### Also available:



Microsoft Designer Compact Keyboard



Microsoft Sculpt Comfort Keyboard



Microsoft Sculpt Ergonomic Keyboard

### Setting up your workspace

Once you've chosen your ergonomics accessories, let's look at how you can incorporate them into your workspace to help you be more comfortable and productive.

This begins with positioning your laptop—and any additional monitors—at eye level, which helps you keep your head and neck in a neutral position. With the flexibility you get from adding a separate keyboard and mouse, you're able to align your wrists with your forearms parallel to your work surface. Ensure that your chair provides support for a natural back arch and is adjusted so your feet are flat on the ground. Don't forget to take breaks and rest your eyes periodically, so you can better focus and be more productive.

Here's an example of how to set up and position yourself at an ergonomic workstation.

Other tips to remember:

- 1. **Take frequent breaks.** Stand up and stretch, walk around, or at least switch up your activities (for example, from typing to reading). These breaks increase your physical activity throughout your workday while also helping your focus, which decreases after about 20–30 minutes.
- 2. **Rest your eyes.** Change your focus from your screen to about arm distance to the far distance, and then back again. You can also customize your font size and screen brightness to make your eyes comfortable.
- 3. **Keep wrists in line with your forearms** and not bent upwards, downwards, or to one side or the other.
- 4. **Raise your chair** high enough so that elbows are level or slightly higher than the keyboard. For this, you can use a pillow, pad, or even folded towels.

