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ERGONOMICS—COMPUTER KEYBOARD

Choose your input device—the mouse and trackball are the most popular—based on the requirements of your task and your physical limitations. Place your mouse or trackball in your immediate reach zone for natural comfort and maximum hand-to-eye coordination. Placing your input device too far away, too low, or too much on one side can cause shoulder, wrist, elbow, and forearm discomfort.

Mouse

The mouse is designed to fit the contours of your hand. A keyboard is used with a mouse, so you should position the mouse as close to your body as the keyboard is and within easy reach. The mouse and keyboard should be placed together on an adjustable work surface, on a large adjustable tray, or on two adjustable trays. The work surface must be stable; if the mouse is used on a keyboard tray, the tray should not wobble or tip. Mice come in a variety of sizes and designs such as vertical, joystick, or hybrid.

Other Input Devices

There are other input devices you may use instead of a mouse. Choose a device based on the requirements of your task and your physical abilities. Just remember, placing your input device too far away, too high or low, or too far to one side can cause shoulder, wrist, elbow, and forearm discomfort. Place your device in your immediate reach zone for neutral posture and maximum hand-to-eye coordination.

- **Touch pads** allow you to move the cursor on the computer screen by simply gliding your finger across a small pad.

- **Touch screens** allow you to point directly at an object. They require little or no training, are faster than other pointing devices, and require no extra work surface. However, the disadvantages of touch screens include arm fatigue, smudges, optical interference, and increased glare.

- **Trackballs** use different muscle and tendon groups than the mouse so it can add variety to your input tasks. The track ball stays in one location so it requires less hand, wrist, and arm movement than a mouse but requires more repetition from the small tendons and muscles in the hand and fingers.

- **Voice input** allows you to “talk” to your computer. Currently, programs can understand and respond to natural speech. Some throat problems, such as soreness and dryness, may occur when using your voice as the input device for extended periods of time.

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- **Pen devices** allow you to “type” through contact with the computer screen. The pen stylus allows the wrist to stay a neutral handshake position. Similarly, software applications have been developed to recognize and transcribe handwriting.

- **Gesture gloves** are worn on your hand and respond to hand and arm motions. A glove is most useful for high-tech applications, such as sophisticated engineering projects, where it might be used to turn the page in a 3-D landscape.