

The Truth about "Ergonomic" Products

These days many products are labeled "ergonomically designed." Unfortunately, right now there is relatively no regulation of the term "ergonomic." If you are experiencing problems, some "ergonomic" products can even make things worse!

If you're thinking about buying an "ergonomic" product, to solve your discomfort, start by asking yourself the following 4 questions:

- **Does the product design and the manufacturer's claims make sense?** Use common sense in evaluating the claims made by the manufacturer. Trust your instinct - if the claims seem too outrageous they probably are!
- **What research evidence can the manufacturer provide to support their claims?** Be suspicious of products that have not been studied by researchers.
- **Does it feel comfortable to use the product for a long period?** Some ergonomic products may feel strange or slightly uncomfortable at first because they often produce a change in your posture that is beneficial in the long-term. Think of some products like new shoes-they may feel strange at first, but you get used to them after a while. If a product continues to feel uncomfortable after a reasonable trial period (say at least a week), then stop using it.
- **What do ergonomics experts say about the product?** If they don't recommend it, don't use it.

If you're thinking about buying an "ergonomic" product to make yourself more comfortable, start by asking yourself the following 4 questions:

- **Chairs:** As long as the chair has height and back adjustment features, it will be worth your while. Chairs can range from a hundred dollars or less to more than a thousand dollars. Generally, the more expensive chairs have more adjustment features and better construction. The greater a chair's adjustment capabilities, the greater the number of people who will be able to sit on it comfortably. This is particularly important if you share a workstation with your child(ren).



- **Armrests:** The best armrests will allow you to rest the area of your forearm that lies halfway between your wrist and elbow, without compressing any part of the arm. Look for armrests with height and width adjustment features. Research shows that armrests reduce:
 - Postural strain to the upper body
 - Muscle loads in the upper arms, shoulders, and neck
 - Loads on the spine (by redistributing the weight of your upper body)
 - Forearm exhaustion while typing (when your forearms get tired, you tend to increase wrist extension)
 - Key forces while typing, which play a role in repetitive stress injury development
- **Keyboards:** Most "ergonomic" keyboards on the market today are split keyboards (those where the alphanumeric keys are split at an angle). These keyboards mainly address the problem of wrist ulnar deviation (side-to-side). However, vertical wrist movement is more important when preventing injury. There is no consistent research proving that split keyboards offer any postural benefits.

For most people a regular keyboard design works just fine if it's placed in the proper neutral position. Some people find split keyboards more comfortable than traditional keyboards, but if you use one, make sure that it is not causing your shoulders to raise higher than comfortable.

- **Keyboard Trays:** Keyboard trays that allow you to adjust down and tilt away from your body are best because they allow your body and hands to maintain the most neutral working position.
- **Tracking Devices:** There is no conclusive research that says that one type of pointing device (mouse, trackball, stylus, touch pad, joystick, etc.) is better than another. Make sure that you are using it in a neutral position (arm relaxed, close to your body). A pointing device should also fit the hand of its user. Don't use a very large mouse if you have very small hands. In the same token, young children often prefer trackballs because the traditional mouse design is sometimes too big for their small hands.
- **Mouses:** The mouse is the most popular type of tracking device. There are many "ergonomic" mice out there. Before you purchase a mouse, place your hand over it. If it causes your wrist to extend up too much, it is not really "ergonomic." One recent study



showed that one particular mouse design, which is flatter and broader than a traditional mouse, can reduce side-to-side wrist deviation.

- **Wrist rests:** Research studies have not demonstrated any substantial benefits from wrist rests. Some people may actually experience increased pressure in the wrist area from using one. If you use a wrist rest, a broad, flat surface design works best. Many keyboards come with an attached wrist rest. Avoid soft and squishy wrist rests (gel-filled), which will contour to your wrist and encourage wrist twisting movements. Your hands should be able to glide over the surface of a wrist rest during typing. Using a wrist rest as forearm support can be comfortable and effective.
- **Glare Screens:** Glare screens can only reduce glare, not magnetic fields. Any jargon on the packaging about "magnetic fields" usually refers to static electricity. The higher quality glare screens are worthwhile; lesser quality screens may accumulate a lot of dust and obscure the image. Remember that you may not even need a glare screen if you position your monitor in a way that does not encourage glare.
- **Support Braces/Gloves:** There is no consistent research evidence that wearing support braces during computer use actually helps reduce the risk of injury. In fact, many experts recommend not using wrist support braces while working, but rather only during periods of inactivity. If you do like wearing a wrist support, make sure that your hand stays flat and straight. There is some evidence that wearing wrist supports at night in bed can help relieve symptoms for those with Carpal Tunnel Syndrome. Some manufacturers make support gloves, which are designed to provide support without restricting motion, and claim that these can be worn while working. Gloves may be useful if they provide some padding over the pisiform bone or are thin and fingerless (to keep the wrist and hands warm).
- **Software:** Working at a computer can be hypnotic. It is especially important that parents pay attention to children, who often do not realize how long they have been sitting at a computer. Look for software that will run in the background and monitor how much they have been using the computer. It will prompt them to take a rest break at appropriate intervals, and it will suggest simple exercises. You can purchase this software or you can download simple versions that get the job done just as well.

