

The chair is one of the more important pieces of furniture used in work and home office settings. Many tasks are performed from a seated position – using a computer, typing, writing, and reading are a few that come to mind. Without a properly fitting and supportive chair, it can be very uncomfortable to sit and perform those tasks. A person who is not comfortable is easily distracted. Back and neck pain can result. And nothing gets done.

FREQUENTLY ASKED QUESTIONS

What is ergonomics?

Ergonomics is defined as “an applied science concerned with the characteristics of people that need to be considered in designing and arranging things that they use in order that people and things will interact most effectively and safely – also called *human engineering*. (Webster’s Ninth New Collegiate Dictionary, © 1989 by Merriam-Webster Inc.). The study and practice of ergonomics are based upon the principles and characteristics of human dimensions and movements.

Why are ergonomics important?

Products that are designed ergonomically are comfortable for people to use. These products, used properly, do not impose a need for unnatural muscle strain or require physical positions the human body does not easily achieve. This allows a person to work longer, stronger and harder. Additionally, movement and positioning are used to best advantage, allowing a person to function most effectively and efficiently within their environment, and which maximizes output.

Why should I buy an ergonomic chair?

An ergonomic chair has features that are designed to minimize user fatigue and discomfort. A person who is alert and comfortable is more productive.

How do I know if I need an ergonomic chair?

Think about how you sit when you are occupied with a task. People tend to move into habitual postures while they are distracted with their work. Look for clues that might indicate your seating posture and comfort. Some examples are:

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- Are there items stored beneath your desk? Worn edges of boxes may indicate you are using them as footrests.
- Do you prop your feet on a trash can or in a drawer?
- Do you sit with your feet supported on chair casters?
- Do you “perch” on the edge of a chair?
- Do the armrests on chairs you use show signs of wearing out?
- Do you have devices (i.e. backrest) to make your current chair more comfortable?
- Do you feel pain after sitting for any length of time?

These clues generally indicate that the person sitting in the chair is not supported or comfortable. If you do any of the above, you probably need an ergonomic chair.

Should I purchase a chair first or other furniture?

It is best to purchase a chair first, then build the rest of the office furniture around it, rather than trying to force a chair into a pre-defined space.

Where can I buy an ergonomic chair?

Ergonomic chairs are generally purchased from office furniture and equipment dealers. These sources can be found in the telephone yellow pages under Office Furniture and Equipment Dealers. They also can be found in some of the office supplies stores, especially the warehouse-type stores (Office Depot, Office Max). Chairs can also be purchased through some of the member buying clubs (Sam’s, Costco).

Prior to the actual purchase, look into the possibility for borrowing or leasing the chair for a period of time. Though this is more often done for larger companies where there is potential for future sales, it doesn’t hurt to ask!

What does an ergonomic chair cost?

The cost of an ergonomic chair is generally dependent upon what features and options it offers. Chairs can cost as little as \$100.00 or more than \$2000.00.

What features does an ergonomic chair have?

An ergonomic chair can have some or all of the following features:

- Adjustable height
- Contoured seat and back cushions
- Adjustable angle seat pan
- Adjustable height and angle back rest
- Head rest
- Adjustable arm rests
- Rolling casters

There are so many ergonomic chairs on the market. How do I choose the one that is right for me?

When choosing your chair, be aware that chairs come in all shapes and sizes. One size does NOT fit all. And it is important to remember that you should choose the chair to fit the user – not the décor!

Whenever possible, you should evaluate different chair styles from several companies. Most office furniture companies carry one or more ergonomic chair lines. Multiple features are often

available within each chair line. Many features are available standard within each price range. Unusual features, such as an oversized seat pan for an overweight person, may not be available on lower quality chairs. Evaluation chairs should include those features that will be needed by the user.

Ideally, you should sit in each chair for a day or two performing the tasks you need to do. This allows your body to become accustomed to the new chair, and lets you try out the various features to determine if they are suitable for your use. Many companies will loan a chair to you for trial purposes. If this cannot be arranged, you should try and sit in the chair at different times over a period of a few days. This allows you to determine if the chair is really sized for you and comfortable each time – and not comfortable just because you have sat in so many chairs that they all start feeling the same.

You should sit in each chair being evaluated, with your back supported by the backrest. Consider the following:

- The seating goal is to adjust the chair so that you are most comfortable.
- You should adjust the height of the chair so that your feet rest flat on the floor with your ankles, knees and hips bent to approximately 90 degrees.
- When you are firmly seated, there should be at least two finger-widths of space between the front of the seat and the back of the knees.
 - If there is less space, the seat pan is too deep and will contribute to a slouched posture or a tendency to "perch" at the front of the seat. One method of rectifying this condition is to attach a contoured back support to the backrest.
 - If there is more space, the seat pan is too short and will not properly support the body, contributing to general discomfort and feelings of fatigue.
- The seat pan should have sufficient width between the armrests to accommodate your hips.
- If the seat is contoured, your hips and buttocks should be cradled in the contoured area.
 - If the contoured area is too small or too deep, one hip will be skewed higher than the other.
 - If the contoured area is too big or too flat, you can freely shift about in the space.
 - A poorly fitting seat pan contributes to poor posture and should be replaced.
- Seat to back angle should be adjusted to an approximately 90 degree angle. A slightly greater angle may be ultimately more comfortable.
- When you are seated, your elbows should come in contact with the armrests without bending or twisting the trunk or raising the shoulders. In order to be useful, the armrests should be set to support elbows without causing the shoulders to be unduly raised or lowered
 - Too-short armrests promote leaning of the body in order to use them. This leaning is not posturally correct and can lead to discomfort and pain. Too-short armrests should be raised, built-up or removed to encourage better posture.
 - Too-tall armrests cause elevation of the shoulders during use, and can lead to fatigue. Elevated shoulders can also contribute to poor posture from leaning, or neck and shoulder discomfort.

I'm really happy with my new ergonomic chair. What's next?

Now you've got a chair that is adjusted to fit you and helps you to work comfortably, don't get in the habit of sitting for long periods of time. Work hard, but take a break at least once an hour.

Stand up, shake out your muscles and move a bit. You'll be surprised at how a little thing like this can refresh you and keep you feeling good. And it's time to work on the rest of your office. But that is a subject for another Quick Reference Guide.



Additional Resources

ErgoWeb: <http://www.ergoweb.com/news/index.cfm>
Articles and resources on ergonomics.

American Society of Interior Designers: <http://www.asid.org/>
Articles and resources on ergonomics.

Human Factors and Ergonomics Society: <http://www.hfes.org/>

Occupational Safety and Health Administration: <http://www.osha-slc.gov/ergonomics-standard/index.html>

National Institute for Occupational Safety and Health: <http://www.cdc.gov/niosh/ergopage.html>
Articles and research on ergonomic products.

CTDNews: <http://www.ctdnews.com/>
Source for information on cumulative trauma disorder (CTDs) injuries and workplace repetitive stress injuries, from carpal tunnel syndrome to low back pain.

International Interior Design Association: <http://www.iida.com/>

Mayday Pain Project: <http://www.painandhealth.org/occupational.html>
Collection of links and archives pertaining to occupational pain.

Contact the following resources for further information on finding E-mail discussion lists:

<http://www.techconnections.org> or 800-TEK-SEEK

<http://www.assistivetech.net> or 800-726-9119

Product Links

Company	City, State, Phone	Web Site	Products
A.D.A Solutions by WorkLink	Berkeley, CA 510- 848-8363	http://www.worklink.net/	A one stop resource for computers, electronics, assistive and adaptive technology, and voice recognition software/systems for your PC or Mac or UNIX machine
Air Technologies Corporation	San Juan Capistrano, CA 714-661-5060	http://www.airtech.net	Manufacturer/distributor of various computer ergonomic products
AliMed Inc.	Dedham, MA 781-329-2900	http://www.alimed.com	Ergonomic products, medical supplies and assistive devices
Applied Ergonomics	Skokie, IL 847-679-5148	http://www.appliedergonomics.com	Office Reseller
Ascentient Technology	San Rafael CA 415-485-0643	http://www.ascentient.com	Distributor of the MouseTrapper, a keyboard accessory that allows you to control your mouse and all it's functions without removing your hands from the keyboard.
Back Designs, Inc.	Berkeley, CA 800-466-1341		A complete resource and fitting service for ergonomic and health care products.
Bidinoff Marketing Inc.	800-267-9912	http://www.bidinoff.com	Ergonomic solutions for workplace productivity for a wide variety of applications, including server rooms, manufacturing, warehousing and materials handling and medical to name a few.
BodyBilt	Navasota, TX 800-557-8861	http://www.bodybilt.com/	Various models of ergonomic chairs.

Company	City, State, Phone	Web Site	Products
CESSI-Computer & Electronic Safety Solutions Inc.	Atlanta, GA 404-250-1004 800-BUY-ERGO		
Details Inc	New York, NY 800-584-4047	http://details-steelcase.com	Steelcase
DMB Ergonomics	Thousand Oaks, CA 888-886-ERGO [3746]	http://www.dmb-ergonomics.com/	Kinesis keyboards, Fox Bay keyboard arms, supports and chairs, Contour Design mice.
EDI Ergonomic Design Inc	Northglenn, CO 303-452-8006 800-645-5122	http://www.ergodesign.com	Computer Product Reseller
Equipment Direct	Brea, CA 800-424-4410	http://www.equipdirect.com	Safety Product Reseller (Ergo/Computer)
Ergo & Health Network	Kent, WA 253-520-6840	http://www.ergohealth.com	
Ergo Shop	Washington, DC 800-670-ERGO	http://www.ergoshop.com	
Ergonomic Products	Houston, TX 800-ERGOPRO	http://www.ergopro.com	Productivity, Health & Comfort "For the Office of the Nineties"
Ergonomic Resources	Colorado Springs, CO 719-520-5009 888-320-5009	http://www.ergonomicresource.com	Office Product Reseller
Ergonomic Resources, Inc	Hamburg, NY 716-648-3257	http://www.ergoresources.com	Ergonomic solutions for the office, workplace and home.
Ergonomic Sciences Corporation	Sunnyvale, CA 800-ERGOSCI 408-737-9800	http://www.ergosci.com/	Helps companies design healthy work environments, with the goal of eliminating sources of physical stress and injury associated with operating computers. Ergonomic furniture, accessories and services.
Ergonomic Solutions at Work Inc	Rochester, NY 716-264-9750	http://www.ergonomicsl.com	Office/Industrial Product Reseller
Ergonomic Specialties, Ltd	Lombard, IL 630-268-1809 800-707-7060	http://www.ergospec.com	Office/Industrial Product Reseller
ErgoOutfitters	Wellesley, MA 800-WRISTPAD 781-235-1690	www.ErgoOutfitters.com	Ergonomic products for the prevention of computer related injuries.
Global Industries, Inc.	Marlton, NJ 856-596-3390 800-220-1900	http://www.globaltotaloffice.com/usa2001/	

Company	City, State, Phone	Web Site	Products
Herman Miller	Zeeland, MI 888-443-4357	http://www.hermanmiller.com/	Ergonomic chairs: Aeron, Ambi, Aside, Avian, Eames, Equa 1, Equa 2, Equa 3, Limerick, Reaction
Harris Work Systems	Beaverton, OR 800-577-4797 503-643-3018	http://www.harrisworksystems.com/	Ergonomic furniture, custom fit seating, panel systems, space planning, workstation modifications
HON	Muscatine, IA 319-264-7100	http://www.hon.com/	Ergonomic chairs.
IMPACC USA	Greenville, ME 207-695-3354 800-762-7720	http://www.impaccusa.com	Publications & Office Products
Kare Products/Ergo Kare Inc	Boulder, CO 303-443-4243 800-927-5273	http://www.kareproducts.com	Office & Related Products
Keyboard Alternatives & Vision Solutions, Inc.	Santa Rosa, CA 800-953-9262 707-544-8000	http://www.keyalt.com	Adaptive equipment for individuals with work-related injuries or with physical or visual impairments.
La-Z-Boy	Monroe, MI 734-241-4700	http://www.lzbcontract.com	Business furniture
National Office Furniture	Providence, RI 800-215-7000 401-274-9000	http://www.nationaloffice.com/	New and used office furniture, including chairs.
North Coast Medical Inc.	San Jose, CA 800-821-9319 408-283-1900 ext 321	http://www.ncmedical.com	Ergonomic products, medical supplies and assistive devices
Office Organix	Montauk, NY 800-569-9236 516-668-3884	http://www.officeorganix.com/	A division of Maxus, Inc., a 10 year old catalog company. Our company is dedicated to helping keyboard workers improve their office environment. We seek a more conscious understanding of workplace setup and we sell products to enhance both home and corporate offices.
Office Relief	San Leandro, CA 510-383-1190	http://www.officerelief.com	

Company	City, State, Phone	Web Site	Products
Options by Infogrip		http://www.infogrip.com/	Options features over a hundred products including one hand keyboards, voice recognition software, ergonomic keyboards, mice alternatives, touch screens, switches and switch access products, ergonomic supports, therapy products and much more.
Professional Ergonomic Solutions	Sacramento, CA 888-374-6776 916-447-ERGO (3746)	http://www.proergo.com	Ergonomic products, training and consulting
Raynor			Chairs available only through dealer representatives.
Relax the Back	Santa Fe Springs, CA 800-222-5728	http://www.relaxtheback.com	Chairs and other ergonomic products
SafeComputing	408-269-5430	http://www.safecomputing.com/	Wide selection of keyboards, mice, speech recognition systems and other office accessories available for direct, internet ordering.
Steelcase	Grand Rapids, MI 888-783-3522 616-247-2710	http://www.steelcase.com/i	Ergonomic chairs
SunWay		http://www.sunwayinc.com/	
Synapse (Marty Tibor)	San Rafael, CA 888-285-9988 415-455 9700	http://www.synapseadaptive.com/ http://www.unixspeech.com	Providers of adaptive and assistive technology solutions.
Teknion	877-TEKNION	http://www.teknion.com/	Ergonomic chairs.
The Saunders Group - ErgoSource	Chaska, MN 800-456-1289		
Umbra			Chairs available only through dealer representatives.
United Chair		http://www.unitedchair.com/	Chairs available only through dealer representatives.
Worksafe Products	St. Louis , MO 314-872-9022	http://www.wsergo.com	Quality ergonomic products for computer users.