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seating inc.
chairs that fit every task - for every body

How to Choose a Chair That's Best for You

You sit for hours a day doing your job. Your chair should be doing its job too.



Images courtesy of Seating, Inc.

ERGONOMICS IS A TERM THAT gets thrown around all the time in the furniture industry. Many consumers ask if they can purchase an “ergonomic chair” without truly understanding what that even means, and manufacturers are quick to term a particular chair their “ergonomic choice.” However, no manufacturer or salesperson can call one specifically configured chair their “ergonomic choice,” because that depends solely on the person who uses the chair. Why settle for “off-the-shelf” pre-configured chair models, when you can learn how to choose the right chair for you—the one that fits your body and works for *you*.

First, let’s identify the meaning of ergonomics. The definition of ergonomics is an applied science concerned with the design and arrangement of things people use so that the people and things interact most efficiently, enhancing the long-term comfort and health of the user. Put most basically in terms of properly seating people, ‘ergonomics’ means customizing chairs so that they fit the tasks people do and support individual bodies most appropriately.

When it comes to chairs, there are three keys factors to making sure you choose the most ergonomic choice for you: size and shape, mechanism functions and foam options.

Size and Shape

People come in all shapes and sizes (big, small, tall, short and wide), perform different functions throughout their day in their chairs—lean over lab benches, recline in their chair, sit in their chair all day while on the phone or roll around in their chair to reach different work stations—and spend varying amounts of time a day in their chairs. All of these differing situations require distinct seating options. A 350-pound man with a utility belt should not sit in a chair that is too small for him, nor should a petite 110 pound woman have to sit in a chair that is too large and doesn’t support her correctly.

It is crucial when choosing a chair that you make sure it *fits* you. Not all chairs come in one size only, and you should feel comfort-

able asking your sales rep or manufacturer to discuss different sizes when installing for a project or just buying a single chair for a coworker. Some manufacturers make matching style chairs in different sizes so that there can be a uniform look throughout an office, while still fitting all sizes of people. Be sure to ask about cylinder height, adjustable lumbar support, adjustable seat depth, small and wide edition sizes and different back height options that will assist you in customizing a chair for your size.

The shape of the chair is also important, and it is generally an individual’s personal preference that dictates the appropriate ergonomic and comfort levels. Be sure when choosing a chair that you ask about the structure of the chair—is it made from plywood, compound curve plywood or plastic? A compound curved wood is the best option for ensuring proper lumbar and seat support, because this means that the substructure of the chair, not just the foam (which can break down over time and actually change the shape of the chair) is creating the support and shape of the chair.

Mechanism (Sometimes Called Control Functions)

Mechanisms are the control devices on the bottoms of seats in chairs that determine the functions of a particular chair. Many manufacturers offer mechanisms with varying levels of functionality to match budgets and uses.

Mechanism functions are described below to help you determine which features are most important to you so that you can do your job most effectively.

Back Angle



• *Back Angle Adjustment*—the backrest may be adjusted forward or rearward, independently of the seat angle for optimum support. This function is often able to be left in a “free-float” position for those who like to change their back position throughout the day to alter between reclining and straight sit positions, or can be locked into a position that best fits the user.



Seating, Inc. (Nunda, NY) offers Intensive Use task, executive, guest chairs and stools for multiple shift applications and users up to 350 lbs. Backed by a 15 year warranty, they make chairs with quality, North American made components that stand up in tough 24/7 environments such as security and communications centers, hospitals and police stations.

Three hundred-fifty chairs are constructed with 10-ply compound curved plywood and a 4" wide back bar for strength. Three-inch thick, 6.2 lb. molded anti-microbial, energy absorbing TLC memory foam seats provide premium comfort, while the variety of heavy duty mechanisms allows you to match functionality to your budget. A broad selection of durable fabric, vinyl and Crypton textiles makes their tough chair beautiful too.

350 task models are durable enough to pass the stringent GSA FNEW83-269E Intensive Use Performance Test guaranteeing that your Seating, Inc. chair will survive in any 24/7 severe use environment.

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Back Height



• **Back Height Adjustment**—the back height of the chair may be raised or lowered to position the lumbar support to attain maximum comfort. This is especially important for chairs that may be used by multiple users, so that the back support can be positioned properly for different sizes of people.

• **Pneumatic Seat Height Adjustment**—the chair seat height may be adjusted to fit varying work surface heights. This function is also used to accommodate user size differences and should be combined with the correctly sized cylinder to best fit the user so that both feet rest comfortably on the ground to properly support a user's weight.

Seat Height



Seat Angle



• **Seat Angle Adjustment**—the seat may be pitched forward or slightly rearward for support in leaning tasks. Allowing the angle of the seat to be adjusted allows users to release tension and increase proper blood flow while in a seated position for extended periods of time.

• **Tilt Adjustment**—the seat and backrest can tilt rearward to support in recline positions. A forward tilt option allows the seat and backrest to tilt forward to eliminate hip constriction in forward leaning tasks. These functions should be made to work in "free-float" or locked positions so that the user can get the most support in the position they choose to sit in.

Tilting



• **Tilt Resistance**—the tension may be increased or decreased to aid in smoother operation based on the user's weight. This is especially important when purchasing a chair that will be used by multiple users, so that they can all be properly supported. This is to ensure that a smaller user does not have to strain herself to use the chair, and a larger user will not be unexpectedly pitched backwards.

Tilt Resistance



Seat Depth



• **Seat Depth Adjustment**—the seat may be moved rearward or forward to better accommodate user's size from their knees to their hips. This also helps to support taller users.

All of these functions contribute to the overall ergonomic benefits of a chair. However, for a chair to best work for you, you have to determine what you will do in the chair, how many people will be using it and in what type of environment it will be used (heavy duty, intensive use, single-shift, occasionally, etc) before you can properly determine which mechanism is the best option for your project or work center.

When purchasing a chair, ask about the adjustments. Does it have a manual back height adjustment or a quick-set back height adjustment? A manual back height adjustment means that the user will most likely have to get out of the chair, or reach around the back to use a knob and adjust the height, whereas a quick-set height adjustment allows a user to simply raise and lower the back height to their position with minimal effort and strain.

Are the functions on easy-to-reach touch paddles under the chair, or do they have to be adjusted using turn handles? Are adjustments spring loaded for ease of use, or are they manual? Knowing how your chair is going to work for you ahead of time is going to assist you in using it properly, which is key for a correct ergonomic workstation.



Foam

In chairs, there are generally two main densities of foams used in the seat and back—1.8 lb to 2.2 lb fabricated foams and 3.2 lb molded foams. In addition, some manufacturers use quality foams that go as high as a 6.2 lb energy-absorbing foam. Each foam has its own properties and ergonomic benefits. As a rule, the more dense the foam is (or the higher the poundage) the more support it provides and the less chance it has for breakdown and deterioration.

One mistake that many consumers make is to assume that the softer the foam feels on first sit, the more ergonomic and comfortable it is. This is not always the case. More important than the “soft” factor is the density of the foam, so be sure to ask about the type of foam used. A 1.8 lb to 2.2 lb density fabricated foam is good for use in single-shift applications and places where the chair is not being used all day. Molded foams are good for regular work week hours, and stand up to tougher applications and more pressure; 6.2 lb density foams are used in intensive-use applications and should also be used in chairs that hold heavier people, up to 550 pounds. Premium foam will not break down over time, so it will provide the same ergonomic support over years of use of the chair.

Other questions to ask regarding foam are:

- **Static pressure rebound**—does the foam assist in gently pulling away from pressure points in the body to increase comfort, support and blood circulation?
- **Molded shape**—is the foam molded so that it will retain its shape, providing constant support? Non-molded foams will tend to shift their shape and lose support in pressure points, especially in the seats of chairs where the majority of weight is placed when sitting. These molded foams provide users with support to encourage proper posture and seating positions.
- **Minimal rebound force**—does the foam have dissipating force (energy-absorbing) features? This means that it does not return upward rebound stress to the user. This minimizes any “jarring” sensation and “kickback stress” to the user.
- **Compression setting**—does the foam have a tendency to ‘compression set’ or lose ergonomic shape especially as it pertains to heavier users? Heavier users will suffer from increased compression with fabricated foam.
- **Elimination of restriction of blood circulation**—does the foam shift and move with the user while gently pulling away from pressure points? If so, this encourages blood circulation. Choose a foam that actually drops away from high pressure areas to eliminate pinching or constricting of the blood vessels. The pinching of these blood vessels by other foam types is the major cause of long-term sitting discomfort and fatigue.

Choosing the right foam in a chair is always an important consideration when purchasing a chair. Understanding the value of the materials that make up your chair will help you balance your needs with your budget when you invest in a seating product. Improved foam quality provides good value, enhancing the quality of your work experience by providing increased comfort and support, plus long service.

Educate Yourself Before the Sale

The best way to maximize the ergonomic benefits of any chair is to match the size and shape, mechanism and foam preferences to the user. Proper arm support is also integral to the long term comfort and health of the user. Choosing the style that best fits the work environment is key to proper ergonomic benefits. Work with a salesperson or manufacturer who is willing to learn about your needs and uses for the chair so that you can ensure that you are buying the right chair for your needs.

Each user has different requirements, so creating the best ergonomic chair for an individual does not mean spending the most money or adding the most features. Learning how a chair is manufactured, and knowing what component parts and functions make up the chair will assist you in customizing your chair to match your needs. Educating yourself before the sale will ensure that you get the most for your budget and ergonomic needs. **ENPM**

For more information, contact **Sheila Lecce** of Seating, Inc. (Nunda, NY) at (800) 468-2475, via e-mail at slecce@seatinginc.com or visit the Web site at www.seatinginc.com.



Seating, Inc.
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550 | 350



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