Guidelines for Office Chair Selection

Chair design contributes to the comfort and productivity of the workers. The chair can be a critical factor in preventing back fatigue as well as improving employee performance and efficiency. People who sit for long periods of time run a high risk of low-back injury, second only to those who lift heavy weights[1]. Management, professional, and office workers accounted for 23% of injuries and illness involving days away from work. The back was the primary body part affected and working position was the second highest source of injuries[2]. To reduce this risk the user must be able to sit and maintain the spine in a neutral posture. A properly designed and adjusted chair is essential to maintaining a neutral posture. Support is available from the local safety and occupational health office and on the Navy Ergonomics Program's web site- www.navfac.navy.mil/safety and click on ergonomics.

Some manufacturers are eager to label furniture and accessories "ergonomically correct" or "ergonomically designed," much like food products are liberally labeled "all natural" or "new and improved." In reality, a chair that meets the body type of one person might not fit the next. Therefore, what is "ergonomically correct" for one individual may cause injury to another.

Chair selection is best when based upon personal testing. People vary widely in their shapes and sizes, and manufacturers offer a range of sizes to meet these needs. All adjustments should easily be made from the seated position. The following chart contains key criteria to consider in chair selection. The dimensions[3] below are intended to fit 90% of the population, special accommodations may be required for petite or tall individuals.

Workers should use the chair in accordance with manufacturer's instructions and can contact their local Safety and Occupational Health office for additional information.

NOTE: Alternative seating such as exercise balls, ball chairs, and kneeling chairs do not meet the minimum requirements below and are not considered acceptable office seating.

[1] Andersson "Epidemological Aspects of Low Back Pain in Industry" Spine, 6:1 (1981)

[2] National Safety Council Injury Facts 05-06

[3] International Organization for Standardization 9241-5: 1998 and Business and Institutional Furniture Manufacturer's Association G1-200

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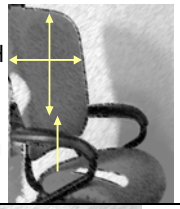
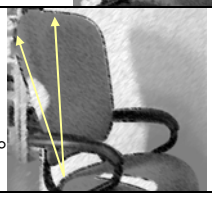
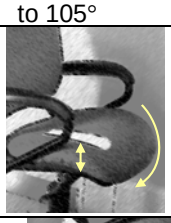
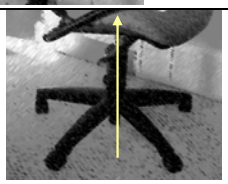
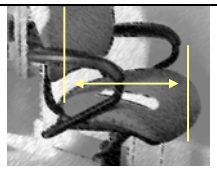
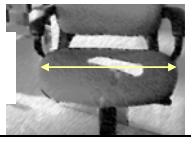
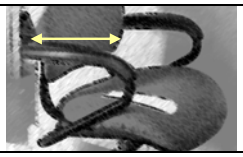
Backrest	An independent backrest height adjustment with space for buttocks between the backrest and seat pan.	The mid-lumbar portion of the backrest should range in height from 6 inches to 10 inches from the seat pan. Either backrest or lumbar support should be adjustable	Backrests size: minimum 14.2 inches by 12 inches wide with a pronounced lumbar support that protrudes forward about 1 inch from the seat back. Size Min 12" W x 15" H Range 6 – 10 in 
Backrest (optional)	Tilt Minimum range of 90 to 105 degrees.	Locking tilt feature	Min Range 90° to 105° 
Seat Cushion	Seat cushion should be made of high-density foam, 1.5 to 2 inches thick, and cloth fabric for breathability.	Minimal contouring, slightly concave with waterfall front edge.	 1.5 to 2 inches thick waterfall front edge
Seat Height	Pneumatic seat height adjustment, ranging from 15 to 20.5 inches from the floor measured at the center of the seat pan		
Seat Pan	Fixed: Max: 16.9" Adjustable seat pan depth to a maximum of 15 - 20 inches	 15 to 120 inches	Minimal width 18" 
Seat Pan (optional)	Tilt 10 degrees forward to 5 degrees backward.	Rocking mechanism	
Base:	Minimum of 5 star base Swivel 360 degrees.	Casters should be appropriate for the flooring type. (Rubber casters for linoleum and tile, nylon casters for carpet.)	
Armrests (optional)	Adjustable height and width or removable	9 to 12 inches in length, no shape edges	 9 to 12 inches