



**BUSINESS
FURNITURE**

ECONOMIC ERGONOMICS



Back pain is endemic in South Africa. Statistics reveal that at least 80 percent of South Africa's workforce is suffering from acute discomfort and even disability due to problems which arise from low back pain. Astonishingly, backaches, after colds and flu, cause the largest portion of work absenteeism. While there are no official figures available on the cost of disability, it is estimated that worker disability in 1999 cost the economy more than R2 billion.

Several factors work together to cause backache. Office workers spend more than 90 percent of their working time in a sedentary position. Approximately 80,000 hours of a working life span. Incorrect sitting postures are responsible for many muscular ailments resulting in reduced motivation and work output.

As a result, more and more organisations are leaning towards employing ergonomic practices within their office environments, so as to create effective and productive work systems for their employees. This is achieved by improving the mutual interaction between the human body, work-related conditions and work tools.

With the introduction and implementation of ergonomics into the workplace, individuals are able to decrease risk of injury/illness, enhance productivity through the optimal utilisation of all resources pertaining to the working environment, as well as improve their overall quality of work life.

However, this calls for a complete rethinking of the way in which furniture is designed and used. A mindset that has been fully embraced by CN Business Furniture, a Bidvest company and leader in the sourcing and production of stylish and international smart choice furniture trends suitable for outfitting both large or SME office environments.

Engineered comfort

er·go·nom·ics (ūr'gə-nōm'iks)

n.

The applied science of equipment design, as for the workplace, intended to maximize productivity by reducing operator fatigue and discomfort. Also called *biotechnology, human engineering, human factors engineering*.

Usage: *The ergonomics of the new office were felt to be optimal.*



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As a result, through its understanding of the importance of good seating solutions from an ergonomics perspective; CN Business Furniture is increasingly sourcing, designing and manufacturing more ergonomic centred desks and seating. These product ranges allow individuals to adjust furnishings to their optimal specification – a definite necessity within office areas where more and more people are required to share work stations. Therefore, by assessing organisational working environments, CN Business Furniture is able to design safe, effective and productive work systems.

Says Robbie Bergh, Group Managing Director of CN Business Furniture: “Through education on ergonomics, employees can be trained to utilise their work space correctly and prevent the cumulative cycle of ailments such as fatigue, discomfort and ultimately pain, resulting from musculoskeletal disorders and repetitive stress syndromes manifested in the workplace. In turn reducing absenteeism due to these and other related ailments.”

Ergonomic solutions can be simple and straightforward to apply. Often small changes such as altering the height of a chair is all that is needed to make a considerable difference to an individual's comfort levels.



Below are helpful guidelines provided by CN Business Furniture to assist workers in creating an optimal work environment:

Applying best practice ergonomics - adjusting your workstation to suit you

- Sit as far back into the seat as possible
- Place feet firmly on the floor
- Adjust the seat height to ensure your knees are bent at right angles to the thighs (90° - 95°)
- Legs must fit comfortably under the desktop with sufficient space to allow for movement and stretching
- Raise the height of the armrests towards the base of the elbows (bent at a 45° angle)
- For height variable desks, adjust the desk height to the level of the chair arms, making them “flush” with the worktop surface enabling the armrests to act as an extension to the worktop, thus ensuring that your arms are adequately supported and your shoulders are relaxed
- Pivot the armrests either inwards/outwards to obtain the correct positioning of your arms, applicable to the task-at-hand i.e. armrests face inward for keyboard usage or outward if operating the mouse
- Place the mouse and other commonly used items within comfortable reach to minimise excessive stretching and avoid awkward postures
- Position the monitor and keyboard squarely in front of you, allowing for adequate focal distance of 50 - 70cm between yourself and the screen; without leaning your head, neck and trunk forward
- Adjust the height of the seat back to obtain the correct lumbar support relative to your stature
- Adjust the seat pan angle and set the tension of the mechanism to facilitate effortless “to and fro” movement of the seat proportionate to your body weight
- Avoid direct glare from the window onto your monitor. Correct this by changing or shielding the light source or repositioning the workstation
- The work surface should be large enough for the user to perform the required duties, comfortably



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The ideal computer workstation

1. Sitting depth
2. Chair height
3. Seat pan angle
4. Lumbar-to-thigh angle
5. Lumbar support
6. Armrest height
7. Backrest angle
8. Focal distance
9. Focal angle
10. Monitor angle
11. Desk height
12. Work surface depth

For further information, please do not hesitate to visit the CN Business Furniture Web site:

<http://www.cnonline.co.za>

This diagram identifies the physical points of stress experienced at a computer workstation. The superior design of ergonomic products seeks to minimize or eliminate this stress and enhance the interface between technology and the human form.

