



Jan van Tonder & Associates
Ergonomic Consultants
P O Box 373
Clarens
9707
Cell 082 4400975

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Chair Ergonomics

In the modern office environment the computer is an essential piece of office equipment which makes this a computerized work environment. Working with computers over extended periods and for long periods a day will eventually result in an average sedentary worker sitting up to 80000 hours during his/her working life. Cumulative trauma disorders are defined as a large group of conditions that result from causing injury and or stress (trauma) to the body in either a minute or major way over a period of time. It is the buildup of trauma that causes the disorder. Sitting incorrectly or not having the correct support for the body and functional comfort will over so many hours invariably result in cumulative trauma disorders.

I have over my career span as ergonomist on many occasions criticized the quality of seating in the South African workplace. Criticising employers for looking for the cheapest seemingly “ergonomic” chairs.

At a conference on occupational health and safety in the workplace I was once asked what chair I would recommend. I then did not have a clear answer and decided that the next time I will be able to give a well researched answer on that question.

In order to give a valid answer on what constituted a good ergonomic chair for the computerized work environment, I first determined what are the relevant health, safety and ergonomic criteria for an office chair. I came to the following conclusion:

The chair is from an ergonomics perspective one of the most important pieces of equipment in the office environment.

A good chair will always accommodate the individual user's needs. A chair should ensure that the user remains comfortable and free from postural strain. A suitable chair should inhibit internal pressure on the intervertebral discs and should require very little static muscular effort, which in turn will prevent strain and pain. When discomfort is experienced, it is mostly associated with pressure on the intervertebral discs and fatigue.

The features of a good chair will ensure the following:

- *Blood circulation in the thighs is not restricted;*
- *The amount of loading on the spine is minimised and a modest degree of lordosis is maintained without muscular tension; and*
- *Little muscular effort is required to maintain the posture.*
- *Allows, through adjustability, for “Free Posturing” or also known as “Dynamic Sitting”*

A businessman is not going to buy a chair on its ergonomic characteristics alone; he is also going to consider quality, price, warranty and appearance. Armed with all these criteria I set out to determine what is available in the South African market. I identified a couple of chairs that complied with some of these criteria, but one manufacturer's chairs that stood out above the others. The chairs that stood out were those of a relatively new manufacturer in the market place, Karo Manufacturing. All the Karo products complied with my set of criteria but the one product that stood out and which I have endorsed over many years was the Form Range. This range has over the years consistently been improved beyond its original high standard to what it is today the Form 2 .0 range.

Over the years I have found that the Form range was not only excellent for office seating but also was effectively used in the treatment of people with lower back problems by physiotherapists. As it is highly adjustable I found that it also helped my teenager's postures at their desks and to study better.

Dr Jan A van Tonder
Registered Ergonomist (ESSA)
Former Extra-ordinary Professor of Ergonomics. University of Pretoria for
20 years