

Myths and Fallacies of Ergonomics

Ergonomics has many myths and fallacies associated with it that cause confusion. This could be associated with the widespread lack of awareness of ergonomics as a whole and its goals. Ergonomics involves examining the work task and work location and fitting those to the capabilities of the workers who will do that job. This allows the task to be safer and more efficient, often without a large cost or significant change. Simple solutions can vastly improve discomfort and risk levels.

The chart below lists some of the widespread myths and fallacies (illogical assumptions) surrounding ergonomics.

Corrections of Myths and Fallacies	
Myths and Fallacies	Counterpoint
<i>“Sitting in proper posture all day will alleviate discomfort.”</i>	It is very difficult and taxing on the body to maintain a single position all day. Changing your position slightly and getting up to move around can reduce the strain from a prolonged static posture.
<i>“Sitting completely upright (ramrod straight) is the correct posture.”</i>	Sitting completely upright means the weight of the entire upper body loads through the spine. Utilizing the backrest decreases load through the spine. A majority of workers find this more comfortable. Slight recline (90°-100°) is thus beneficial as it allows for more use of the backrest.
<i>“Ergonomic products are designed to fit all users.”</i>	Ergonomic products are often designed to benefit the most users possible, but do not capture everyone. Adjustment and sizing of the equipment is necessary to get the full benefit from these products. Products can also be designed for subsets of employees with specific concerns but the extent to which they are ergonomic depends also on how and where it is being used.
<i>“I have no problem with the workstation so it should work for everyone”</i>	It is apparent to see that a large worker and a small worker will have slightly differing needs. Even amongst workers of similar stature, small differences in limb length, joint stability, muscle tone and many other factors can make a workstation fit for one worker but not the other.
<i>“It was designed to fit the average person so it should fit all users”</i>	Designing for the average person in the population does not consider the risks associated with those who lie on the fringes or even outside the norm. For these workers, average conditions will be under-average for their needs.
<i>“People adapt well to new situations, it shouldn't matter what is in place”</i>	While it is true that humans are quite adaptable, it often occurs with a subsequent trade-off. Adapting to an unsafe position could come with increased risk in many areas of the body.
<i>“Ergonomics is expensive”</i>	Many of the best ergonomic solutions are low cost. Raising your monitor to correct level (top line of text at eye level) for instance. Some costs are higher but can be minimized if addressed early in design of the jobs. From a cost perspective, poor ergonomics can lead to decreased productivity and time lost from work.
<i>“I design items ergonomically but do so intuitively and by common sense not data”</i>	Although many times common sense ideas often have an associated benefit, whether the change is ergonomically beneficial must be quantified. Pain levels, time to perform task, weight handled, and other scales can all be used to prove that the task is better fit to the worker.

Ergonomics can be thought of as a shirt. For each user it is the same task (warmth, covering) but each user has different needs. There are large workers, smaller workers, and those of varying proportions. If there were only medium plain white shirts, this would not suit everyone and neither will a single model of workstation.