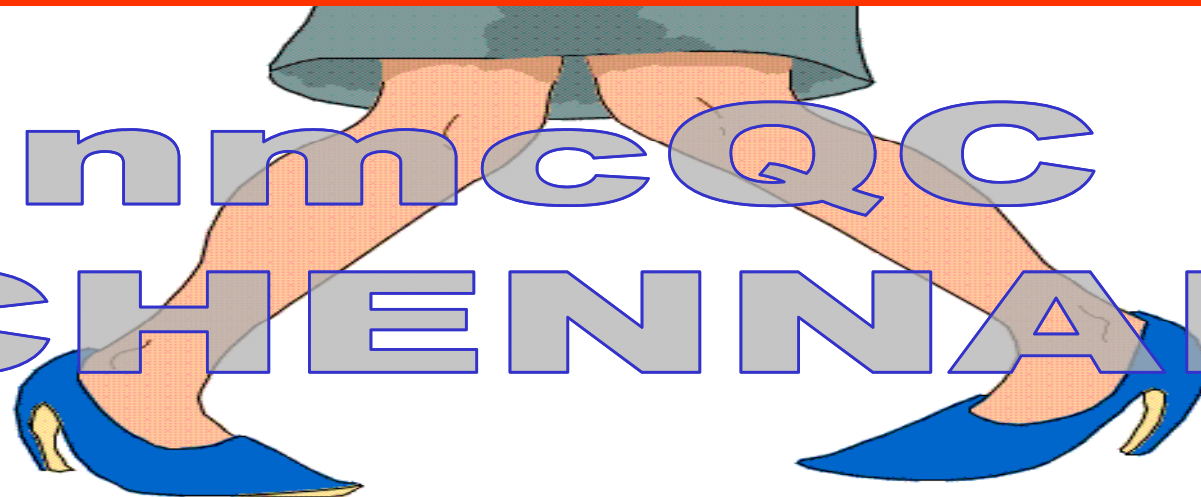


Ergonomics

nmmcqc
CHENNAI



What is Ergonomics?

- er·go·nom·ics \,ûrg-go-'näm-iks\ - The science of work. Ergonomics removes barriers to quality, productivity and safe human performance by fitting products, tasks, and environments to people.
- The term ergonomics is derived from the Greek word ergos meaning "work" and nomos meaning "natural laws of" or "study of."

What is the purpose of ergonomics in the workplace?

- The goals of ergonomics are to:
- Decrease occupational risk of injury/illness
- Enhance worker productivity
- Improve quality of work life
- Absenteeism reduction
- Work injury compensation cost reduction
- Make workplace safer, more comfortable, and more productive

What do Ergonomists do?

- Ergonomists use information about people (height, weight, their ability to handle information and make decisions, their ability to see and hear and their ability to work in extremes of temperature) to make the workplace safer, more comfortable, and more productive.

What do Ergonomists do?

- With this information, the ergonomist, working with designers and engineers, ensures that a product or service will be able to be used comfortably, efficiently and safely. This design must be for the whole range of people who use the product - including perhaps, children, the elderly and the disabled. An ergonomist can also assess existing products and services, showing where they fail to 'fit' the user and suggest how this fit may be improved.

Methods by which these goals are obtained

- Evaluation And Control Of Work Site Risk Factors
- Identification And Quantification Of Existing Work Site Risk Conditions
- Recommendation Of Engineering And Administrative Controls To Reduce The Identified Risk Conditions
- Education Of Management And Workers To Risk Conditions.

Work Risk Factors

- Certain characteristics of the work setting have been associated with injury. These work characteristics are called risk factors :

Work Risk Factors

Physical Characteristics

- Posture
- Force
- Velocity / acceleration
- Repetition
- Duration
- Recovery time
- Heavy dynamic exertion
- Segmental vibration.
- Eyestrain

Work Risk Factors

Environmental Characteristics

- Heat stress
- Cold stress
- Whole body vibration
- Lighting
- Noise

Other Work Risk Factors

- Job stress
- Job invariability
- Cognitive demands
- Work organization
- Workload
- Working hours (shift work, overtime)
- Displays and control panels

Other Work Risk Factors

- Slip and falls
- Fire
- Electrical exposures
- Chemical exposures
- Biological exposures
- Ionizing radiation
- Radiofrequency/microwave radiation.

Are there any ergonomic standards or guidelines?

- Yes! Several organizations at the national and international level write ergonomics-related standards and guidelines.

STANDARDS

- Occupational Safety and Health Administration (OSHA),
- National Institute for Occupational Safety and Health (NIOSH),
- American National Standards Institute (ANSI),
- International Organization for Standardization (ISO)

are the main groups who create the standards / guidelines