

Survey of the ergonomic aspects of kitchen workstation

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■ **ABSTRACT** : It is often noticed that very well decorated home kitchen do not invite housewives. To work with the kitchen interior arrangements, she has to do a lot of stretching as well as bending very often. It is beyond doubt that kitchen activities demand a high degree of physical effort leading to fatigue. The major causative factors responsible for this are the static muscular effort and unnatural body postures, mainly resulting from poor designing of kitchen counters, inappropriate kitchen shelves, floor and almost continuing work in standing posture. Therefore, it was imperative to evaluate the existing features of kitchen workstation. The present study revealed that the height of counter varied in between 76 cm to 91 cm and work triangle from 2.6 to 5.3 meters. Kitchen size ranged between 5 and 10.1 m sq., with majority of the kitchens facing east in the selected sample.

■ **KEY WORDS** : Work station, Ergonomics, Designing, Kitchen, Homemaker

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The quality of housing can enhance or diminish the well being of individual and families as that of the entire community. The work area especially kitchen should be adequately designed and properly arranged in order to reduce the physical, psychological and temporal cost of the homemaker. According to Saha (1999), housing is a major health problem in our age of industrialization; hence this needs to be looked into critically so that improvements can be made by considering more fully the human factors involved. The planning of the kitchen area in the house needs to be considered of prime importance in order to facilitate the carrying out of activity by reducing the effects of fatigue and accidents in the kitchen. With the little imagination and inexpensive planning, the worker can transform the kitchen into a comfortable and pleasant working place and make the kitchen activities easy and enjoyable and not a hateful necessity. In recent years, there has been a trend of more and more women getting employed outside the home, in addition to their traditional domestic work, to share the financial burden of the family, and also to gainfully utilize their professional expertise (Varghese *et al.*, 1994). Experience had shown that most of the people keep a kitchen for approximately two decades or even more and do not get it repaired or renovated with change in

demand or change in the fashion. That's why it pays to carefully consider the needs and wants of the homemaker while designing the kitchen. Poorly designed kitchen work surfaces, storage spaces, material and dimensions cause permanent body damage besides increasing the work cost. This justifies that dimensions of kitchen work surfaces and storage spaces should be given careful attention thereby, minimizing stress on cardio-vascular, muscular and respiratory system. Therefore "work space must get considerable attention in the designing of the layout" (Charles, 1976). Considering the importance of dimensions and designing it was felt that an ergonomic evaluation is needed of the existing kitchen situation, so that recommendations/ guidelines for improvement can be made to suit the Indian style of kitchen.

■ RESEARCH METHODS

For study, a field survey of eighty respondents, forty each from east and west zone of Ludhiana district in Punjab was done. Field survey is necessary and one of the most important steps in ergonomic evaluation. A proper survey helps in crisply evaluating the workstation, defining the problems and generating relevant concepts for improvement. Understanding the homemaker, her preferences, and problems