

Reduction in Energy Costs of Doing Selected Household Work by Using Efficient Gadgets and Applying Ergonomics in Homes

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ABSTRACT An experimental study was conducted on 24 females to test the efficiency of selected kitchen gadgets and ergonomic principles for reducing energy costs of selected household work. The results of the study revealed that use of labour saving kitchen devices accounted for overall human energy saving up to 45.37 percent over traditional devices such as electric grinder (81.08 percent) pressure cooker (60.70 percent) and lemon squeezer (56.00 percent). Energy saving by using *saag* cutting machine was 54.68 percent followed by electric juicer (53.24 percent) chopping board (53.15 percent) and egg beater (52.96 percent). Use of vegetable peeler, electric sandwich maker and onion chopper enabled subjects to save energy up to 25 percent. Using right body posture in doing household work also saved considerable amount of human energy. 73.55 percent of energy was saved while washing dishes standing at 82 cms high sink, followed by brooming with long handled broom (90 cms) in erect posture (54 percent) and mopping with long handled mop in standing position (50 percent). Ironing clothes on 82 cms high ironing board accounted to 48 percent energy saving followed by churning milk & washing dishes (40 percent) and washing clothes (34percent) while sitting on 6.5 cms high wooden stool (*Patra*). Grinding wet and dry spices sitting on woven 13.5 cms high *Pihri* enabled subjects to save energy up to 30 percent followed by 26 and 16 percent energy saving for making *Chapati* while standing at 82 cms counter and washing floors with long handled broom in erect posture.

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