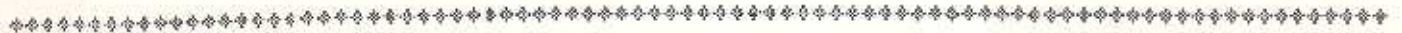




XXIV ANNUAL MEETING OF THE AERO MEDICAL SOCIETY OF INDIA

Symposium on

Jogging and Health



1 Physical Fitness and Work Efficiency

NLN RAO

PHYSICAL fitness can be defined as the level of physical competence and personal well being to do a certain amount of task. The term health generally means freedom from all physical and mental disease. This does not presuppose stamina, skill and a happy coordination of mind and body. Physical fitness on the other hand means a well trained body which would always carry out the orders and which would not let the person down. Work efficiency denotes the degree of refinement or accuracy in ones work or in other words the quantum of sustained good quality work that can be produced.

Physical fitness is not one yardstick that can be applied equally on all. It is only relative. While referring to physical fitness in relation to work efficiency, we do not refer to such degree of physical fitness as to run 100 metres in 10 seconds or one mile in less than four minutes. In our parlance, physical fitness is what comes from regular exercises like jogging, running, yoga and games. Absence of physical fitness could mean absence of health while

existence of health need not mean existence of physical fitness.

The benefits that accrue to the body and mind by physical fitness are well known. Regular activities that lead to physical fitness stimulate the heart and lung activity sufficiently enough to produce beneficial changes in the body. The body learns to increase the maximum amount of oxygen that a body is normally used to process in a given time. This is dependent on breathing in larger volumes of air, delivery of larger volumes of blood and thus delivery of more oxygen to all parts of the body including the brain. This should obviously result in the following benefits :

- a) strengthening of respiratory muscles,
- b) strengthening of heart muscles and its pumping efficiency,
- c) toning up of all the muscles in the body with healthier tissues.

These in turn will result in the following beneficial effects which have a close relationship with work efficiency :

- a) lesser reaction time so necessary to the aviators particularly in emergencies,
- b) sense of feeling better and looking better which adds to self confidence,
- c) additional physical and mental alertness which ought to result in higher productivity and
- d) more and more of cheerfulness and less pessimism.

The easily noticeable benefits that add to the work environment are :

- a) lesser reaction time which helps to prevent accidents.
- b) lesser incidence of sickness resulting in more productivity,
- c) higher resistance enabling faster recovery from sickness.
- d) reduced number of low medical categories and faster return to normal categories resulting in more work output.

Staying well is better than getting well. Regular exercises, games, jogging etc. are not to be considered as if they are for younger persons only. They are for people of all ages. While relating work efficiency to physical fitness we cannot ignore the benefits that accrue to those getting on in the years, e.g., prevention of obesity, coronary heart disease,

hypertension and diabetes, prevention of premature aging and improvement of vigour and vitality, these increase the work efficiency of man both on desk jobs and on the tarmac. For the individual who is involved directly with the handling of aircraft and its various components, physical fitness is of paramount importance for carrying out his task consistently efficiently even towards the end of the working hours. Secondly, a mentally fully alert individual is more likely to detect snags and failures on an aircraft in early stage of servicing and inspection which goes a long way in prevention of aircraft accidents. He is less likely to involve himself in self-created accidents.

A physically rested and mentally alert pilot is less likely to miss routine checks both on ground and in air and he is better able to deal with emergencies since he has quicker response with shortened reaction time. For individuals confined to desk jobs, they will not only perform better mentally on their own jobs, but also get up from their chairs to supervise and inspect the extent and scope of their work.

Physical fitness is relative and the requirement varies from person to person. Existence of physical fitness has a great impact on general well being and work efficiency. Conversely, its absence has many adverse effects on both the individual and the service. One sees officers and men bubbling with energy and high morale. One also sees officers and men tied down with hospitalisations, sick leaves, medical boards, lowered morale and resultant lowered work efficiency. It is also ones experience that persons with high physical fitness drink less, smoke less if they are smokers, surprisingly enough eat less and have more energy and last but not the least feel more sensuous.