Health Benefits of Exercise

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Better to hunt in the fields, for health unsought than fee the doctor for a nauseous draught. The wise, for cure, on exercise depend; God never made his work for man to mend. John Drydon.

How true! God never meant his machine to be mended by ordinary mortals. It was made with built in mechanisms needed for the rescue measures. Modern living has robbed most of the “civilised” world of the many benefits of an active lifestyle. Man has become sedentary what with all the gadgets for assisting him in every walk of life. Even housewives have become more or less sedentary. This is a curse on human health and longevity.

Intensity of exercise needed for physical fitness and bodybuilding is often confused with that needed for health benefits and longevity. The two are totally different. Physical fitness may not be the same as health without physical illnesses. The emphasis is changing from encouraging an increase in fitness to encouraging an increase in total energy expenditure. This new approach comes from the recognition that there is a genetic component to fitness and that health benefits are achieved by activities that do not necessarily produce large gains in fitness.

Regular physical activity decreases the likelihood of premature deaths. Very heavy physical exercise is sometimes associated with sudden death, but regular exercise, not of the vigorous type, more than compensates for this extra risk by the overall reduced risk at all other times.

Routine exercise does confer many benefits like better exercise tolerance, lower body weight, lower blood pressure—both systolic and diastolic, better control of blood sugar and cholesterol, lowered cardiovascular morbidity and mortality, lowered stroke risk, diminished accident rates, better social acceptability, strengthened bones in postmenopausal women, significantly reduced cancer risk of all types, better respiratory reserve, lesser incidence of viral infections, lowered risk of depression and most of all, a good night’s rest at the end of the day. There are reports of well controlled studies that even show longer life expectancy in those that are active compared to couch potatoes.

Although sudden death is more common during or immediately after a bout of vigorous exercise, it is not seen in people who regularly exercise. Regular exercise programmes do protect one from the risks of an acute exertional episode, which might be a necessity in an emergency. The question that would be asked by many patients and lay people is at what age does the exercise regime benefit most? Recent work has clearly shown that exercise started even in those past the middle age would bestow its benefits, irrespective of the previous state of health.

A small number of young men (five) aged 20 years in 1966, were studied extensively for their aerobic power—body’s ability to use oxygen. They were given three weeks of complete bed rest. At the end of the bed rest they were again tested to show that their aerobic capacity had declined significantly at the end of three weeks bed rest. Now in their late 50s they were completely reexamined to see the effect of ageing on their systems. They had lost their aerobic power by 11%, their body fat had almost doubled and their muscle mass was reduced significantly. Their cardiovascular capacity had declined significantly.

They were then given a period of exercise—none of which was vigorous and there were no weight exercises. Most of the exercises were walking, bike riding or swimming. All of them started gradually and built up slowly to achieve, at the end of the month, moderate exercise for forty minutes a day for, at least, five days in a week. Six months later a repeat assessment showed that all the men had regained their aerobic capacity by 15%, their cardiovascular health had returned to normal, and they had less fat and bulkier muscles. They were fitter in every respect and felt a lot better. Three weeks of bed rest at the age of 20, had made them much worse than at their age of 56 years. Six months of moderate exercise got them back to their physical health of their younger days at age 20. It is never too late to get back to shape! said the author of the paper.

Health related articles in lay press give mostly misleading ideas about the health benefits of exercise while goading the population to do vigorous exercise to get into shape. The exercise outfits industry is a multi-billion dollar industry, anyway. It would have its say through these write-ups and advertisements! Vigorous exercise is not only not needed, as the benefits gained by mild-moderate exercise are as good, if not better, than that gained by vigorous exercise; but moderate exercise avoids the possible risk of sudden death during or immediately after a bout of exercise—more so in the elderly. I have written at length about that in the past. It is worth repeating that physical fitness and good health are two different cups of tea, although both could be simultaneously
Various types of exercise have been scientifically studied in the past, including walking, running, cycle ergometer, callisthenics, and restrictive exercises. Although all of them do good to the human system, the best of the lot seems to be walking. The latter does not need any special sports gears, could be done in any place and weather, and most importantly, by anybody at any age. Even the very old have been shown to benefit by walking. Added advantage being the mental alertness in that age group, in addition to all other benefits of other age groups.

Standard advice has been to recommend exercise durations ranging from 20-40 minutes a day for at least four to five days in a week. If done daily it is still better. Physical activity needs to be continuous. Studies have shown that the benefit of lower blood pressure due to exercise disappears if one stops the activity for more than two weeks.\textsuperscript{9}

Industrialised countries could benefit a lot by making regular exercise popular among all their sedentary people. The benefits by way of deaths avoided and premature morbidity could be very substantial both from the economic point of view and that of manpower conservation. People with even modest motivation should be encouraged to gain important benefits of increasing their physical capacity.\textbf{Avoiding premature death seems to be the single most important bonus of increased physical activity in the population.} Although the physiological mechanisms of many of the good effects of exercise are not clearly understood the benefits are very well studied and documented by now. The least study, reported earlier, gives the right message for the elderly who missed out on their younger days on being active. They could catch up at any time and get back to good health and avoid physical disability and premature mortality. In addition to the regular exercise mentioned above, people should also be encouraged to be as mobile as possible even in their work places.

“\textit{Catch them young}” would be the best way to do this. Started early in life the benefits could be lifelong and longevity could be enhanced significantly. The byproduct of this would be to distract the adolescents from the bad effects of drugs abuse, television obsession, and many other criminal activities. Physical exercise confers the added bonus of a tranquil mind that reduces hatred, jealousy, and anger—the three devils, that have been shown to be most important risk factors for major killers like heart attacks, brain attacks and cancer.\textsuperscript{10} One bad habit that delays starting of an exercise habit at any age of the temptation to postpone. People put it off to the next day and that tomorrow might never come!

\textit{T'Morra, t'morra,}
\textit{Lookin’ for t’morra,}
\textit{My aunt became a spinster that way.}
\textit{EY Harburg 1898-1981: T’morra (1944)}

\textbf{REFERENCES}