Pak Heart J

HAZARDS OF PROLONGED SITTING

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We are still not sure that what comes first, prolonged sitting leading to poor health or poor health leading to prolonged sitting, this is what the experts believe till now. There is growing evidence that prolonged sitting dilutes the good effects of adequate physical activity.

By the introduction of more and more computer oriented technologies in nearly every field of life and the evolving smart cell phone era, there is an increased trend towards prolonged sitting.[1] This phenomenon is on the top of sedentary life style, already a known risk factor for coronary artery disease. Nowadays for many people, office work involves extended periods of time at their desk. For some, it can be all day long. Despite the growing awareness and availability of workplace offerings like gym hours, scientists believe many desk workers had already done lasting damage to their bodies as a result of sitting down all day.

Even in the individuals who are supposed to be physically active, there is a strong association between sitting and risk of mortality. This is an important observation because it suggests that prolonged sitting cannot be compensated with occasional leisure time physical activity, even if the amount exceeds the current physical activity recommendations.

There are many well known hazards of prolonged sitting and nearly all are addressed to the general public and medical community. The most common ones are obesity, hypertension, diabetes, impaired lipid metabolism, metabolic syndrome and cardiovascular diseases.[2] Sitting at desk for long reduces activity other than exercise. Thermogenesis is generally a much greater component of total energy expenditure than exercise. This disrupts the normal balance of energy utilization at cellular level.

In a study of 222497 Australian adults, sitting time was an independent predictor for all cause mortality. The study found prolonged sitting time was responsible for 6.9% of deaths. The association between sitting and all-cause mortality remains consistent across women and men, different age groups, weight, health and physical activity levels.[3] The presumed cause seemed to be the decreased muscle contractions that occurs with prolonged sitting. This slows the clearance of fat from the blood stream and decreases the effect of insulin leading to impaired glucose tolerance. Impaired glucose tolerance is nowadays proved to have as much lethal effects on the body as Diabetes Mellitus itself.[4] Impaired glucose tolerance further results into more insulin resistance and in the end results into full blown picture of Diabetes.

The more time spent while sitting results into social deprivation and increased feeling of loneliness both ultimately resulting in depression. Depression is being regarded as a modifiable cardiac risk factor and many interventions had been applied successfully in its management in cardiac patients.[5] The lack of sunshine mostly results in a person to become deficient in vitamin D and that ultimately leads to depression.

A study on older women revealed sitting for long stretches of time increased the odds of untimely death. The more hours women in the study spent sitting at work, driving, lying on the couch watching TV, or engaged in other leisurely pursuits, the greater their odds of dying early from all causes, including heart disease and cancer. In the study, women who were inactive for 11 or more hours a day faced the worst, facing a 12% increase in premature death.[6]

The experts suggest:

1. Using a standing desk at work to move around most of the times.
2. Giving reminders to sit less.
3. At home, considering a TV commercial as signal to get out of chair briefly.
4. At work, using a smaller coffee cup or glass so that trips for refills may be more frequent.
5. Try to change social norms. As a part of working always consider a standing break.

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