Sitting is the new smoking: is there a “NEAT DEFECT”?
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“Happy World Heart Day- come and join the biggest intervention against Cardio-Vascular Disease (CVD) in the world on 29th of September 2014”: These are the word from the World Heart Federation. The organization dedicated to develop a Heart-Healthy Earth since 1978 at Geneva, Switzerland. Why the organization is interested in developing such environment on earth, is the obvious question to our mind. But thanks to the media and other eye opening publications from public health initiatives, we can figure out that, the death from CVD, several cancers are increasing enormously across the globe. It is expected that by 2020, CVD would prevail as the leading cause of death and disability over infectious diseases globally.¹

India alone is burdened with approximately 25% of cardiovascular-related deaths and would serve as a home to more than 50% of the patients with heart ailments worldwide within next 15 years. As per data INDIA contributes to 80% of deaths of CVD, being a middle income country. The major cause of the excess risk of CVD is unhealthy diet, obesity, physical inactivity, tobacco use, smoking and other several risk factors.² Obesity is one of those major risk factors. The major contribution to the obesity is change in our previous healthy dietary pattern, lack of physical exercise or inactivity. CVD is not the alone threat for Indians. Annually, nearly 500,000 people die of cancer in India. The WHO said this number is expected to rise to 700,000 by 2015. With a million new cases being reported every year, cancer seems to be tightening its grip on India. Experts say the incidence of the killer disease is expected to rise five-fold by 2025. The total cancer cases are likely to go up from 979,786 cases in the year 2010 to 1,148,757 cases in the year 2020. Again obesity is one of the major risk factors for this deadly disease too.³

Although there is great alertness among the citizens regarding the importance of exercise in life, there is a wide gap between understandings of the energy expenditure by a human body. People think that going to Gymnasiums makes a great difference in their being at risk for the CVD, Cancers, etc. Even there is a huge misunderstanding being prevailed about use of Gymnasiums. So many organizations come up with several schemes for such Gymnasiums. People not affording for the same were feeling deprived of not in position to achieve better health. But, the truth suggests something different. Losing weight is the most important target for most of these people.

But what is the biggest problem creating obesity? Is it purely overeating, inactivity or lack of physical exercise that matters? The answer could be little simple than anybody expects, with wide open eyes. As per James A. Levine, MD, PhD, of the Division of Endocrinology, Diabetes, Metabolism, and Nutrition at Mayo Clinic Rochester, MN, USA, There are three components of human daily energy expenditure. Basal metabolic rate is the energy required for core body functions and is measured at complete rest without food; it accounts for about 60% of daily energy expenditure. Non-exercise activity thermogenesis (NEAT). Daily energy expenditure varies substantially. In fact, highly active people expend three times more energy per day than inactive people. NEAT is expended every day and can most easily be classified as occupational NEAT and leisure NEAT. Occupation is a predominant determinant of NEAT.⁴

NEAT is the energy expenditure of all physical activities other than volitional sporting-like exercise. So, more a person remains sited more the chance that
he has less NEAT. As per Dr Levine there is “NEAT DEFECT” in human obesity. The story does not end here. There has been a new category coined: actively sedentary people, who are fit for one hour but sitting around the rest of the day. Research suggests that sedentary behavior has negative impact on health, including the risk of obesity, heart attack, cancer and even premature death. Several studies suggests that, roughly two hours of sitting will cancel out the benefits of twenty minutes of exercise on a person’s fitness level regardless of whether they exercised or not. Each time unit of sitting cancels out 8 percent of your gain from the same amount of running. In other words, if you run for an hour in the morning, and then sit for 10 hours during the day, you lose roughly 80 percent of the health benefit from your morning workout. Although the result of this studies were debated a lot.

The NIH-AARP Diet and Health Study, also suggested that it’s not only exercise, which is helpful but avoiding sedentary lifestyle is also very important in preventing obesity, heart attack, cancer and even premature death. Prolonged sitting is bad for you no matter how much physical activity you get. So, all effort is to be made to avoid sitting longer. Hence, a new phrase is being circled that “Sitting is the new Smoking.” “Chair-living has proven so enticing that we have forsaken our legs. It is now time to find ways to get us back onto our legs.” These are the word from Dr Levine. There are simple steps in building up habit of avoid sitting longer or increase time moving your legs. For example, Get a pedometer, add in several steps in a day, pace & fidget while answering a phone, try taking steps than elevators, use cycle reaching your work place etc. There are plenty of examples of NEAT at home and at service. Adopt them and live healthy.

We do need further studies on the effects of prolonged sitting on cellular levels, but till then, we at-least need to start moving and increase NEAT. Sitting time may be not cancelling outs exercise time but there could be something bad in sitting prolonged, effects of which may not be easily cancelled out by exercise. So HAPPY WORLD HEART DAY can’t get success without start moving two legs. Come let’s simply start moving and prevent premature death and diseases.

References: