

## **Sitting is the new smoking**

Faculty:

Sheela Nambiar

In today's highly mechanised and automated world, where there is a button for everything, a remote control to evade movement and where we spend more than half of our waking hours sitting in our chairs, the risks we expose ourselves to include a variety of chronic diseases like Type 2 diabetes, coronary heart disease, obesity, neuromuscular disorders, poor balance and mobility, depression, chronic back and neck pain and even cancer.

Sitting is an independent risk factor for chronic ill health. Even if you exercise for an hour daily, sitting the rest of your day sets you up for chronic disease. When researchers controlled for the amount of exercise a person participates in, excessive sitters were 34% more likely to develop heart disease than those who moved more. Something as simple as not sitting long can increase longevity and our health span.

Our chair is literally killing us!

Given the impositions of our working life where many of us do most of our work seated, the temptation to sit in front of the television at the end of a long day spent seated at our desks or surf the net from our comfortable chairs, what can we do to circumvent the ill-effects of sitting?

This talk is an overview of the epidemic, the 'sitting disease', the problems caused by continuous sitting and how to prevent and/or overcome the negative ill-effects of sitting.

## **Sleep Deprivation and Muscle Endurance. "Sleep vs Muscle or Sleep and Muscle"**

Faculty:

Shalini P

Is there any benefit to a good night's sleep? Are we undermining this process? And is there any benefit to muscle function with good sleep at night??!!

Short or long-term sleep loss is associated with poor health outcomes. Sleep restriction can result in undesirable metabolic consequences, while sleep deprivation can result in rapid, simple, and complex cognitive dysfunction.

Our metabolically active tissues like adipose tissues, liver and skeletal muscle go through adverse outcomes with sleep issues.

Skeletal muscle plays a pivotal role in the body's metabolism. It comprises >85% of protein; maintaining this protein metabolism is crucial to maintaining muscle health. Conditions that

specifically include sleep loss can affect muscle protein metabolism and result in muscle loss. Lower muscle mass is a hallmark of various chronic health conditions, which include Type 2 diabetes, Obesity, Sarcopenia, frailty etc.

Studies report that these conditions are more prevalent in individuals who are sleep deprived, sleep-restricted, and have an inverted sleep-wake cycle. Even a shorter duration of less than a week of sleep deprivation can result in impaired glucose metabolism and insulin sensitivity.

Sleep issues have a profound effect on muscle health by affecting gene regulation.

Through this symposium, you would benefit from understanding the science of sleep, the physical and mental benefits of sleep, Sleep hygiene and top practical points/ ideas to sleep at ease through the night and to get the best for your muscles to regulate the body's metabolism.

The interactive sessions and Q&A sessions conducted in this symposium help in customising individual needs, understanding the pitfalls in various sleep levels and addressing the barriers to improving sleep, which could set an opportunity for change.