**EFFECT OF EXERCISES ON IMMUNE SYSTEM**

There are various theories, speculations and ideas regarding how to keep ourself safe, how to strengthen our immune systems, what Foods to eat, what kind of measures to take to improve our defence mechanism. Hence in this topic I want to briefly summarise the effect of exercises on immune system.

So, we are going to deal the sessions with three main categories i.e.:

* What exercises can do to your immune system?
* What type of exercises to be performed to improve our immune mechanism?
* What is the life style modification to be adopted to improve immune mechanism?

**What exercise can do to your immune system?**

1. It can heighten immune surveillance
2. Increase lymph circulation
3. Exercise delays the negative effect of aging.
4. Exercises can enhance immune defence mechanism and as well as fasten immune system response to infection
5. Exercise can reduce mental stress which is the biggest influence on reducing immune mechanism.

**What kind of exercises to be performed to improve our immune mechanism?**

* The centre for disease control recommends 150 minutes per week of moderate exercises for health benefits
* Although the exercise immunology is considered as a relatively new area of scientific discovery where most of the papers were published earlier, for example. LARA BEE in 1902 provided evidence that changes in WBC differential counts in marathon runners. He also observed that exertion has gone far below the physiological limits and results certainly shows where this is the case we may get a leucocytosis of inflammatory type, which meant that prolonged strenuous running in marathon runners leads to decrease function of WBC.
* Over the last four decades many studies have investigated how exercises can affect the immune system.
* It is broadly accepted that regular mild to moderate exercises can be beneficial to immune system
* But it should be also to be noted more strenuous exercises can supress the immune function leading to open window for infection and can enhance more cortisol production.
* But in bench mark study this “open window” hypothesis was challenged by Dr Campbell and Dr Turner, they suggest the theory was not supported by the scientific evidence, summarizing that there is limited evidence supporting exercises supress the immunity.

**SHORT TERM:** Exercise helps immune system and deal with pathogens

**LONG TERM:** Regular exercises slows down changes that happens to the immune system with aging and minimizing the risk of infection.

**What is the life style modification to be adopted to improve immune mechanism?**

**LIFESTYLE MODIFICATION TO STRENTHEN THE IMMUNE SYSTEM:**

* Get adequate sleep – 6-8 hours of sleep
* Exercise regularly – Mild to Moderate exercises
* Don’t smoke
* Eat diet that is high in fruits and vegetables
* Hydrate yourself with at least 2 – 3 litres of water per day
* Maintain healthy weight
* Minimize your stress level.
	+ practice meditation, involve in any sports activity – to relieve from anxiety, stress and depression
* Don’t forget to take your vaccines