YOGA: INTERVENING FACTOR TO PREMATURE AGEING

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*INTRODUCTION*
Globally, the population is ageing rapidly. Between 2015 to 2050, the proportion of the world population over 60 years will be nearly doubled from 12% to 22%. But the major concern in the current era is the “Premature ageing” and not the natural ageing or what we can call Blissful ageing, which can be due to many causes like diet, lifestyle etc. But the most important and prominent of which is stress.

*PROBLEM STATEMENT*
Let us see the prevalence of it in today’s society.

According to a study conducted, that was based on a survey on a 2000 strong study groups from across the Great Britain, to know about the stress levels in UK, it was found that over a third (37%) of Brits feel stressed for at least 1 full day / week. When taking into account the entire study group, it was found that the Brits feel stressed for an average of 9 days / months.

85% of UK experiences stressed regularly.

This was about the prevalence of stress over a small part of the world. With which we can guess its picture all over the world and its severity.
Let us now see how it directly leads to premature ageing.

Job stress can damage cells leading to early ageing.
1) A 2012 study published in PLoS ONE journal, found that work related exhaustion have a harmful effect on critical DNA in cells. Telomeres were found to be the shortest in such cases.

2) Even the anticipation of stress accelerates the ageing process.
UC San Francisco research found that mere anticipation also led to ageing at the cellular level.

3) UC Berkeley scientists found that the pattern of gene activation and deactivation that occurs as the brain ages, seemed to progress quickly due to stress.

4) In addition to tachycardia and HTN, increased levels of adrenaline leads to temporary vision and hearing loss and reduce their vitality on a permanent basis.

5) Sustained high levels of cortisol’s result in breaking up of collagen and elastin hence leading to early wrinkling of skin hence early ageing.

In this difficult situation where in cause is so prevalent in the society and having such drastic effects over early ageing, yoga renders us a helping hand to a great extent.
There are many ways to deal with it and the best among them is Yoga and Asana practice.

Yoga the intervening factor

Dating back over 5000 years, yoga is considered by many to be the oldest defined practice of self-development. The methods of classical yoga include ethical disciplines, physical postures, breathing control and meditation. Traditionally an Eastern practice, it’s now becoming popular in the West. In fact, many companies, recognizing that relaxed workers are healthier and more creative, and are sponsoring yoga fitness programs. Many studies have found that a little yoga in the morning, can minimize stress and increase productivity. Yoga offers an effective method of managing and reducing stress, anxiety, and depression, and numerous studies demonstrate the efficacy of yoga on mood-related disorders. Currently, treatment for anxiety and depression
involves mostly psychological and pharmacological interventions; however, mind-body interventions are becoming increasingly popular as a means to reduce stress. Yoga, a form of mind-body exercise, has become an increasingly widespread therapy used to maintain wellness, and alleviate a range of health problems and ailments.

A growing body of research evidence supports the belief that certain yoga techniques may improve physical and mental health through down-regulation of the hypothalamic-pituitary-adrenal (HPA) axis and the sympathetic nervous system (SNS). The HPA axis and SNS are triggered as a response to a physical or psychological demand (stressor), leading to a cascade of physiologic, behavioral, and psychological effects, primarily as a result of the release of cortisol and catecholamines (epinephrine and norepinephrine). This response leads to the mobilization of energy needed to combat the stressor through the classic fight-or-flight response. Over time, the constant state of hypervigilance resulting from repeated firing of the HPA axis and SNS can lead to dysregulation of the system, and ultimately diseases such as obesity, diabetes, autoimmune disorders, depression, substance abuse, and cardiovascular disease. Studies also show that yoga decreases levels of salivary cortisol, blood glucose, as well as plasma renin levels, and 24-hour urine norepinephrine and epinephrine levels.

As well known.

“ASANA STHAIRYAKARNAKAM”

Here sthairya is not only about the physical aspect but even the mental aspect.

When we are in a constant state of stress, our minds are tense, our bodies are tense and our sympathetic nervous system is heightened. Specific yoga poses can induce the relaxation response in the body. Calming and restorative poses along with controlled breathing activate the parasympathetic nervous system, bringing the mind and body to a calm and relaxed state.

Some Asanas that help in stress management:

Tadasana:
It helps you improve your concentration levels by increasing your focus level
Balasana:
This helps you to relax completely, like a child. In this pose, you curl up like a foetus.

Padmasana:
This pose is commonly used during meditation and helps to increase the self-awareness levels. The pose helps you to calm down and soothes your mind.

AdhoMukhaSvanasana:
This is one of the 12 phases of Surya Namaskar (Sun Salutation). Along with energizing the body and offering relief from indigestion problems, the pose is known to relax your body. Thus, it is an ideal asana for obtaining relief from stress.

Savasana:
Relax yourself completely with this pose. If you do not have time for any other yoga asanas, you can practice this. It brings your breathing to normal levels, and thus, helps to soothe down stress levels.

Pranayama
With our busy life schedules, we often ignore our breathing. It tends to be fast and shallow. We use only a little of our lung power while inhaling and exhalting. This shallow breathing leads to less oxygen supply and the negative emotions get stuck inside the body. Due to the lack of prana (oxygenated breath) we suffer restlessness, stress, anxiety, etc. This leads to different complications like sleep disorders, fatigue, etc.

Pranayama encourages slow and rhythmic breathing practices that help us take sufficient amount of oxygen that re-energizes our body. In the process, we tend to let go of our negative emotions, thus, making ourselves free from negative emotions.

Some Pranayamas that help in stress management:

AnulomVilom Pranayama
Benefits:

It induces calmness of mind by regulating the flow of prana in the body.
The whole body is nourished with an extra supply of pure oxygen, and the carbon dioxide is more efficiently eliminated. This pranayama purifies the whole blood system and is helpful to increase the overall health of the body.

Very good to increase the resistance power of the body.

Very useful for all respiratory disorders like asthma and bronchitis.

Good to increase concentration, to get sound sleep.

Due to its overall benefit, this pranayama is considered as fundamental pranayama, so one has to do this regularly for maintaining good physical and mental health.

**Sheetali Pranayama**

*Benefits:*

This practice cools the body and affects the important brain centres associated with biological drives and temperature regulation. It cools and reduces mental and emotional excitation, and encourages the free flow of prana throughout the body. It induces muscular relaxation, mental tranquillity and may be used as a tranquillizer before sleep. It gives control over hunger and thirst, and generates a feeling of satisfaction.

**Bhramari Pranayama**

Benefits:

Bhramari relieves stress and cerebral tension, so helps in alleviating anger, anxiety and insomnia, increasing the healing capacity of the body. It strengthens and improves the voice. Bhramari induces a meditative state by harmonizing the mind and directing the awareness inward. The vibration of the humming sound creates a soothing effect on the mind and nervous system.

Few researches done in this field...

1) A 2015 randomized controlled study published in the journal Cancer, found yoga and meditation maintained the telomere length in pt. of breast cancer.

Researchers at the University Of Calgary Alberta, Canada administered yoga to 88 breast CA survivors and it was found that the practice maintained their telomere length.

2) Researchers at Harvard Medical School obtained blood samples from 15 meditators & 22 non
meditators. Here it was studied that the former had longer telomeres than the latter.

3) In a study at Thomas Jefferson Medical College in Philadelphia and Yoga Research Society, 16 yogis had participated where it was noticed that with sarvangaasan, shalbhaasan, vrikshaasan and halaasan, there was significant drop in the levels of cortisol.

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