



Happy Hormones and Doctors



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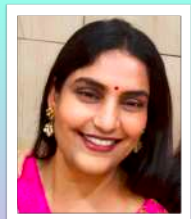
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On this doctor’s Day, let us bring forth a pertinent issue in relation to doctor’s mental well being. Robust data from across the globe mentions higher stress level(28%)in doctors as compared to general population(18%). Hans Selye, who coined the term “stress” to describe ‘the non-specific response of the body to any demand for change’ in 1936, stated in his later years that ‘Everyone knows what stress is, but nobody really knows about stress’. Several negative outcomes in personal and professional dwells of the physician’s lives are attributable to surmounting stress and pressures. Lot of factors which are unique to a healthcare professional’s life are specifically responsible for this. While some factors are avoidable, others are ingrained and thus coping strategies have to be built up.

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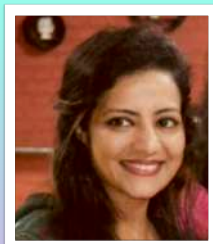


“The more you worry the more you get away from the delicate balance of hormones required for good health..”
Happy Hormones
Happy you
Happy Doctor

Dr Ananya Das

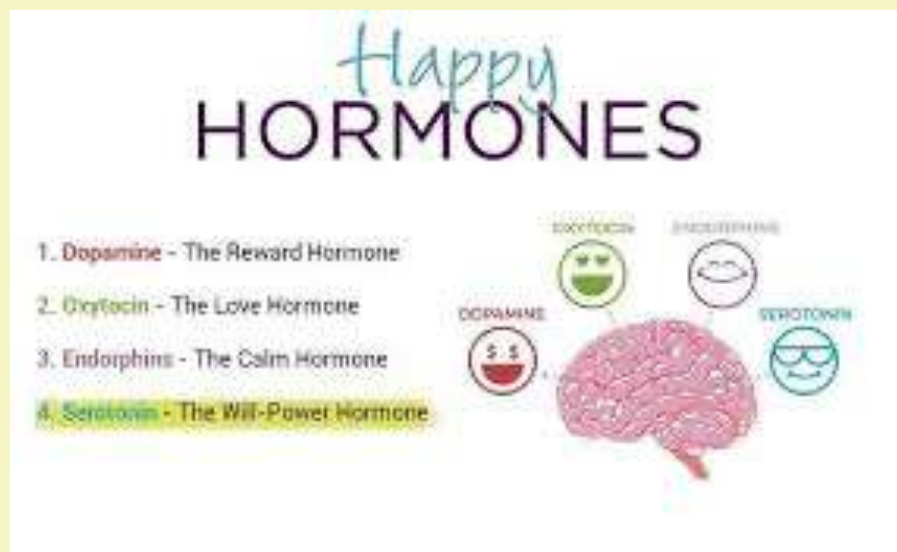
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Some of the factors, prevalent across public, private, rural, urban and teaching medical profession have been enlisted below:

Factors	Impact
Peer pressure	Performing according to the standards laid by organizations and people which may be totally in adept to one's working atmosphere.
Bureaucratic requirements	Doctors previously were minimally trained in financial and administrative skills, which are universal requirements
Exposure to too many emotions	Healthcare professionals are exposed to plethora of exhausting emotions, too many at one time.
Lack of training	Sometimes, due to lack of certain skills, doctors either themselves feel inadequate or are made to do so by organizations and senior colleagues
Lack of Equipments	Doctors proficient in handling minimally invasive and other subspecialities, if are not working in resources rich settings, it leads to built up frustration
Long working hours	This is the most ancient yet unresolved phenomenon associated with medical profession.
Compassion Deplete working area	Doctors are rated on the basis of the parameters set by measures which may be completely unjustified
Fear of litigation	Fear of making mistakes, increasing litigation, media monsterring and shame and blame culture has destroyed the fabric of passionate human services
Family Work balance	This may be called as balance or imbalance as undefined duty hours, failure to upkeep family commitments, monetisation of leaves and minimal leisure time serves as a major culprit for building stress
Disproportionate skill related payments	Professional standards `does not necessarily measure the skills, while a junior colleague may be exceptionally well skilled, but will have to accept pay and perks according to the grades.

While some doctors may “seem” to be okay with the grimness of the situation, some just are not able to convert this bewilderment and pass into Burned Out Phenomenon, which is nothing but an unacceptable state of emotional exhaustion, depersonalization and low personal accomplishments as described by a recent Meta analysis of US studies.

Role of Hormones:

Cortisol:

We identify cortisol as stress hormone, knowing little about its therapeutic benefits in managing stress and anxiety.

Cortisol is a vital catabolic hormone produced in diurnal fashion and peaks at morning hours, by the adrenal cortex of the kidney. Critically, Cortisol maintains blood glucose and suppresses nonvital organ systems to provide energy to an actively ever functioning brain and neuromuscular system. Cortisol is also a potent anti-inflammatory hormone also and provenly; it prevents the tissue and nerve damage associated with inflammation and acute and chronic stress. If there is a perceived a physical or psychological threat, cortisol levels surge in succession to provide the energy necessary to cope with stress-provoking stimuli or evade danger. However, although a stress-induced increase in cortisol secretion is adaptive in the short-term, excessive or prolonged cortisol secretion may have crippling effects, both physically and psychologically. Thus doctors have higher incidence of stress mediated illness like Diabetes, Hypertension, suicidal tendency and Coronary artery disease.

While repeated exposures to excessive and exaggerated psychological responses following poor cognitive appraisals of potential stressors as threatening and subordination may exacerbate cortisol secretion and facilitate the consolidation of fear-based memories of pain or non-pain-related stressors. On the contrary coping, cognitive reappraisal, or confrontation of stressors may minimize cortisol secretion and prevent chronic, recurrent pain, anxiety and stress.

Endorphin:

Endorphins are neurotransmitters and around twenty are identified. Stress and pain are the two most common factors leading to the release of endorphins. Endorphins interact with the opiate receptors in the brain to reduce our perception of pain, increase appetite, feeling of euphoria, mood elevation and sometimes sexual desire is also increased.

In addition to stress and pain, endorphins are secreted in response to exercise, self rewarding attitudes, meditation, massage and other fun activities. Doctors in general are engaging lesser in these kinds of engagements and thus, endorphin mediated benefits are seen less. But, this does not mean that doctors have low levels, rather they are deprived of potential benefits, as they are oblivious to the endorphin releasing incidents!

Oxytocin:

Love Hormone

The nonapeptide oxytocin, known to stimulate and sustain labour and milk ejection, appears to play an important role in mitigating stress by inducing effects such as lowering of blood pressure and cortisol levels. It increases pain thresholds, exerts an anxiolytic-like effect and stimulates various types of positive social interaction and sometimes, promote growth and healing too. Doctors are perpetually working in socially least interacting atmosphere, engaging in less positive and encouraging work place and are continuously under the scanner of either the industry or self assessment and predicaments. Thus, majority of the doctors might be deprived of the soothing benefits of this endogeneously produced wonder hormone.

Serotonin:

Serotonin is 5-hydroxytryptamine (5-HT), mainly present in the brain, bowels, and blood platelets.

Serotonin is a neurotransmitter, and might be considered a hormone also.

It plays an important role in mood, emotions, satiety regulation, and maintaining digestion. It serves as the precursor for extremely important regulator, melatonin and helps regulate sleep-wake cycles and the body clock. As physicians work beyond the realms of day and nights, sleep cycle is inevitably disturbed and so is regulation of serotonin. Thus, doctors become an easy prey of this hormones maladjustment spectre. Thus, a host of minor and major illnesses grip tight our healthcare forces.

Dopamine:

Dopamine regulates reward-related behavior through the mesolimbic dopaminergic pathway. Acute and chronic Stress affects dopamine levels significantly and dopaminergic neuronal activity in the mesolimbic dopamine system.

Dopamine release can be increased or inhibited on the basis of the intensity, duration, and avoidability of the stressor along with multiple other factors. Chronic exposure to psychosocial stressors is associated with dramatically reduced dopamine synthesis capacity. Chronic stress exposure is associated with a dissociation between physiological and psychological acute stress responses in the form of an decreased stress-induced increase in blood pressure alongside a potentiated stress-induced subjective response. Thus, physicians are experiencing more chronic health disorders and anxiety depression syndromes.

Some interventions to increase Happy Hormones

<p>Oxytocin</p> <ul style="list-style-type: none"> ● Pet keeping ● Engaging with youngsters ● Holding hands ● Compliment giving and receiving 	<p>Endorphin</p> <ul style="list-style-type: none"> ● Exercises ● Stretching ● Laughter & Aroma therapy ● Dark Chocolate
<p>Serotonin</p> <ul style="list-style-type: none"> ● Meditating ● Running ● Sun Exposure ● Swimming/Cycling 	<p>Dopamine</p> <ul style="list-style-type: none"> ● Completing a task/activity ● Self indulgence ● Eating and appreciating food ● Celebrating

Small but effective and mindful application of these activities will surely bring down the stressors in Doctors lives. Take care of your hormones, they definitely pay you back!

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