# IMPACT OF MEDITATION ON HORMONE PRODUCTION AND SPORTING PERFORMANCE

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**Abstract:-**Every athlete would agree that energy is a key ingredient to success in sport. Food, restful sleep, breath and meditation are the four sources of energy. The amount of energy gained from meditation is greater than that from sleep with 20 minutes of meditation equal to 8 hours of deep sleep.. Meditation isn't just for monks seeking enlightenment------the athletes can also benefit from the practice. The improved concentration, relaxation and endurance that result from meditation help athletes of all ages excel. . The physical training can helps to get the most out of your body, deep meditation gets the most out of the mind, which many top level athletes feel is much more important. Some meditation techniques even involve combining sport exercises and meditation to reach higher states of consciousness. When done regularly, meditation can greatly improve your athletic performance by 'tuning' the body to peak at just the right time. An athlete that "doesn't have his head on straight" can rarely perform in a manner that will prove successful. As such, athletes need to employ effective strategies that can aid in developing a clear mind. One way this can be achieved through integrating the process of meditation into one's sports training. Meditation is a mental exercise. Daily practice of deep meditation helps more beneficial hormones released during meditation. Mediation increases the production of harmones like HGH[human growth harmone], cortisole, melatonin. Serotonin etc in the body and these helps the positive impact on sporting performances.

**Keywords:** Meditation, hormone production and Sporting performance.

### INTRODUCTION

The athletes cannot winwhen they are mentally defeated. An athlete that "doesn'thave his head on straight" can rarely perform in a manner that will prove successful. As such, athletes need to employ effective strategies that can aid in developing a clear mind. One way this can be achieved is through integrating the process of meditation into one's sports training. Meditation is a practice of concentrated focus upon a sound, object, visualization, the breath, movement, or attention itself in order to increase awareness of the present moment, reduce stress, promote relaxation, and enhance personal and spiritual growth.

## WHAT IS MEDITATION?

- •The word meditation is derived from latin word 'meditari' meaning is to think, to dwell upon, to exercise the mind and another latin word 'mederi' to heal. In Sanskrit language it means wisdom. Meditation is a way of life, which helps us to live on a higher plane of our selves
- •Meditation is a term used to describe the practice of changing the mind.
- According to The Buddhist Centre, meditation techniques help improve concentration and clear the mind so that it is possible to make changes.
- •In sports, a high level of concentration is a powerful tool to improve endurance and work on areas where one is still struggling.

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### MEDITATION AND HORMONE PRODUCTION

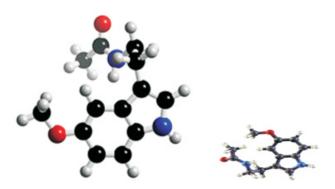
#### 1.CORTISOLE



Adrenal gland produced naturally the hormone "Cortisole". Adrenal cortex has three layers, the cells of midlayer of adrenal cortex release gulcocorticoid like cortisole. The cortisole hormone is a "stress harmone" and it also interferes with learning and memory. Release of increased amount of this hormone increases the human stress. Too much is damaging to body. Meditation controls the release of cortisole.

In every human life he can experiences stress and that more in athletes as compare to others. They worry not only about life style, economic condition, peer relations, family and emotional stress, athletes also have to worry about training and competition stress. That can be controlled by Meditation by reducing secretion of cortisole hormone from pituitary.

### 2.MELATONIN



The melatonin hormone is produced by pineal gland. Research revealed that this hormone helps to sleep more soundly and wake up with refreshed feeling. It regulates sleep and wake cycle. And melatonin ensures proper cell division and DNA synthesis.

An athlete who is under stressed condition will seem trouble sleeping and eating and more susceptible to injuries and illness. Meditation stimulates to secretion of melatonin. It helps to an Athlete to overcome from insomnia caused by training, competition on other hand from over load also

## 3.HGH [HUMAN GROWTH HORMONE]

The Hormone secreted by the anterior pituitary is HGH. It promotes the growth and development of tissues and human skeleton. And it brings young looking in adults. It should release in proportionate quantity. It is also healing hormone. In the growing age of children pituitary gland releases HGH plentifully then steadily decreasing, that are gradually slows the secretion. Meditation

is effective at stimulating the pituitary gland in more secretion of HGH hormone.

By anabolic effects of HGH promotes growth of muscle cells and affects the strengthening of muscle tissue, helping athletes recover from injuries.

#### **4.SEROTONIN**

Meditation increases the production of serotonin which is a calming neurotransmitter in the brain relaying nerve signals from one part to another. Serotonin directly helps to diseases like depression, obesity, insomnia migraine headaches. In treating of anxiety and depression related disorders drugs such as pozac, paxil and Zoloft helps to restore healthy levels of serotonin. Athletes fear of failing or bad performance and bad feedback, fear of competition brings anxiety and more stress and will allow depression. Meditation can cure all And brings mental balance by balancing hormones. Take a meditation as medicine and prevent all above diseases.

## **Meditation and Sporting Performance**

While some people are under the impression that meditation is something for new-age hippies, in reality, practicing meditation or deep breathing can be highly beneficial for most people, including those who want to boost athletic performance.

Meditation has even become popular with many top stars as well as the military. Many studies have found that it cannot only increase fitness levels but it can improve emotional health and even benefit the brain.

### 1.Stress reduction

Stress reduction is crucial for optimal performance. Working out or competing when under stress has been proven to negatively affect performance. A recent study published in the journal Health Psychology showed that the results of meditation is typically associated with reduced stress levels in addition to decreased levels of the stress hormone cortisol.

Being relaxed increases the ability to remain calm under pressure and also improves alertness. Through consistently practicing meditation, it help the body learn how to relax in the most stressful situations, building confidence and ultimately achieving a more positive frame of mind. This can help to improve the game as well as in many other aspects of life.

## 2.Improved sleep patterns

Those who don't get enough shut-eye will experience a number of negative effects. Without sufficient rest, the body doesn't have enough time to recover from strenuous physical activity. A lack of sleep has been shown to cause weight gain, negatively affect athletic performance, and result in an inability to focus. It can even lead to depression.

Athletes who are able to sleep better at night have been shown to perform better and experience better overall health. Improved quality and length of sleep is just another one of the great benefits of meditation.

#### 3. Better endurance

By practicing meditation that utilizes visualization; athletic endurance can be greatly improved. Athletes who visualize accomplishing a specific goal, combined with the practice of deep breathing can help to train the body to work harder and for a longer period of time.

#### 4. Speeding recovery time

By regularly practicing meditation, athletes as well as casual exercisers can help the body to recover quicker from injury. While physical activity is good, it also places stress on the body, including muscle fiber tears. Down time from one of the many common injuries that an athlete can experience, can be greatly reduced.

## 5. Better sense of self and the body

Meditation can help those who practice it to conquer those common "blind spots" that tend

to make our flaws seem worse than they actually are. This serves to build self-confidence and improve performance.

The mediator learns to enhance awareness of every muscle which can help pinpoint an injury earlier and prevent further damage.

Finally, meditation can greatly improve the mind-body connection, allowing the athlete to discover and use its maximum potential.

#### BENEFITS OF MEDITATION ON SPORTS PERFORMANCE

- Meditation creates balance and allows energy to flow more freely through the mind and body.
- It helps to cope with pain.
- ❖ It helps to deal with fear.
- It strengthens immune system.
- ❖ It reduces the mind from ruminating.
- It helps to stabilize emotions.
- Maintains high prana
- \* Balance the emotional quotient
- ❖ Have a greater ability to learn & adaptability
- Perform in the moment
- Effortlessly improves endurance
- Improves precision in action
- Helps to increase levels of attention and focus
- Helps to improve reflection skills
- Helps to enable people to make better decisions under pressure
- ❖ Helps to increase resilience and general health and wellbeing.

## **CONCLUSION**

- ♦ Meditation is a well-regarded tool for creating superior athletic performance
- ♦ Daily practice of deep meditation helps promotes the hormonal activities in the body and certain hormones act as a inhibitor in decreasing the competition fear, anxiety, stress ect, and also acts as s catalyst in sports performance
- Meditation creates balance and allows energy to flow more freely through the mind and body. Concentration is an absolutely vital part of any sport. It can be significantly improved through the use of meditation
- ♦ Visualization techniques help athletes in all sports it gives athletes the tools to teach the body what it need to do on the field of the future.
- ♦ Endurance is another characteristic that can be improved through the use of meditation. Every great athlete became great by the way they performed at the end of the game.

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