





## The role of *Deha Vyayama* (Physical activity) in improving the Physical health, thereby Mental Health in Menopausal women.

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### ABSTRACT

Those activities done by our body which helps to yield the firmness and strength are known as *DehaVyayama* (Physical exercise) in *Ayurveda*. They bring about the lightness, firmness and capacity to tolerate distress. It boosts *Agni* (Digestive power) and brings down *Doshic* upheavals. Menopause is the end point of menstruation. Perimenopausal women experience annoying symptoms like irritability, hot flushes to potentially risky diseases such as Diabetes, Heart diseases etc. Factors affecting them include lifestyle, habits, psychosocial state and familial relationships. Women need to face these changes by engaging in selfcare simply by adhering to 3 basic things - proper diet, sufficient exercises and adequate sleep. Indulging in exercises regularly will yield good outcome on digestion and sleep. After years of animal and human observational and blood studies, it is observed that, a liver protein GPLD1- levels were high in physically active ones compared to who were sedentary. Its high concentration in blood is indicative of empowered Digestive fire. It was observed in mice model that these molecules stimulate the brain cell growth, thereby enhancing its function. This suggests existence of a remarkable communication between Liver and Brain. Hence *Deha Vyayama* has vital role in improving Physical health, thereby Mental Health in Menopausal women.

**KEYWORDS:** *Deha Vyayama*, Menopause, *Agni*, Physical health, mental health.

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## Introduction

Menopause is the transition phase from *Pitta dosha* dominance stage of life to *Vata dosha* dominance stage as per *Ayurveda*. In females, *Vata*, which governs the physiological functions in pelvic region, including menstruation,<sup>[1]</sup> when gets aggravated in this phase, results in difficult symptoms affecting them. *Acharya Sushruta* has mentioned a group of naturally occurring diseases under the heading of *Swabhavabala pravritta vyadhi* (Natural diseases) which includes *Kshudha* (hunger), *Pipasa* (thirst), *Nidra* (sleep), *Jara* (aging) and *Mrityu* (death).<sup>[2]</sup> In *Jaraavastha* (old age), the present day lifestyle is such that faulty diet, lack of adequate exercises, fast paced life without sufficient sleep, solitude ending in severe emotional breakdowns in once life – all will be affecting the body metabolism negatively. In order to regain active metabolism, doing exercises regularly is the key

### Need of study:

Menopause means the permanent cessation of menstruation,<sup>[3]</sup> happening eventually in a woman's life. Many women are unaware of its impact on self. They start feeling various symptoms and signs such as hot flushes, mental agility to diseases such as Diabetes and even different cancers. Women need to be encouraged to face these changes by engaging in self-care simply by adhering to 3 basic things - proper diet, sufficient exercises and adequate sleep.. Exercising consistently will improve once digestion and also results in adequate sleep. These 3 together definitely contributes for noticeable melioration of Physical health,

thereby Mental Health in Menopausal women.

### Materials and methods

**Aim** – To review the importance of *DehaVyayama* (Physical activity) in improving Physical health and thereby Mental Health in Menopausal women.

**Objective** – To review the literature on role of *Dehavyayama* and how it contributes for the bodily health and also the psychological wellbeing of Menopausal women.

### Observations:

It is a Conceptual study and the data is collected from different *Ayurvediya samhitas* and the contemporary research studies taken place worldwide, on the Physical activities and its benefaction towards corporeal and cerebral health improvement. Normalcy of *Thridoshas* is vital for the normal functioning of *Jatharagni* (digestive fire).<sup>[4]</sup> Proper digestion of the food we eat yields in generation of healthy *dhatu*s (quality tissues) by normal functioning of *Dhatwagni* (Tissue generator fire)<sup>[5]</sup> at cellular level. In the present era when the women are continually consuming calorie rich items in the form of unwholesome food stuffs, are truly over loading the Liver enzymes and other related enzymes of digestion. Improper digestion results in abnormal tissue metabolism. Late night sleeps, emotional stress, anxiety, fear of any sorts and not indulging in exercises regularly, all such factors further worsen the tissue metabolism. Such a disproportionate life style hampers all bodily cells, including those related to reproductive system, ending in the production of *Ama* all over the body.<sup>[6]</sup> Accumulation of *Ama* which continues as it is in the Pre and peri menopausal women, leading to disturbance in circadian rhythm of their body, are

further aggravating *Thridoshas*, mainly *vata dosha*. When these chains of things impose storage of toxins, they can block the body's own enzymes and hormones to reach their target cells. When reaching *Rajoniivritti* (menopause) stage, women enter the *Kalawabhavaja riddhavastha* (Timely old age), ready to go through the transition symptoms. But the presence of already imbalanced *doshas*, particularly *Vata dosha*, contributes for pronounced symptoms of menopause in women. According to manifested symptoms, differentiation can be done as *Vataja lakshanas*, *Pittaja lakshanas* and *Kaphaja lakshanas*.<sup>[6]</sup> But as this age is characterized by generalized *Vata* dominance, the *Vataja lakshanas* are more pronounced than other two (*Pittaja* and *Kaphaja*) *lakshanas*. Symptoms or the syndromes develop only when the aggravated *doshas* intrigue the *Jatharagni* and there by *Dhatwagnis*, causing imbalance in related *dhatu*s. Many studies are indicating that Menopause is affecting around 85% of women worldwide <sup>[14]</sup> with one or many irritating symptoms. It impairs the functioning ability of cells and organs of the body. Premature menopause and sudden surgical menopause induces maximum sufferings. Hormonal changes happening at the onset of menopause affects the Physical structure as well as Metabolism of the women. *Ayurveda* refers to those activities done by our body which helps yield the firmness and strength in it, as *DehaVyayama* (Physical exercise).<sup>[7]</sup> As per WHO, physical exercise means any bodily movement produced by the skeletal muscles which needs expenditure of accumulated energy. It includes all movement done during even the leisure time, for transport to reach to places,

also as a part of a person's daily work.<sup>[8]</sup>

To assess and understand the potentially rejuvenating benefits of the physical exercises, many researches were conducted all over the world. One such research was conducted by Dr. Saul A Villeda at the University of California.<sup>[9]</sup> The team collected the blood and compared the different proteins that circulate in the mice which did lots of physical activity with mice which were sedentary. They also studied the brains of young as well as aged mice, some of which were active and some, sedentary. Although different many proteins were found in raised concentration, the researchers concluded on one protein, GPLD1 made in the liver. They injected the gene for this protein into the aged mice. Their liver started producing increased levels of GPLD1. Observing those mice for 3 weeks, researchers noted brain cell growth, thereby increased capacity of learning and memory, like in active mice. This established the truth that there is a remarkable Liver- to- Brain communication, which enhances one's capacity, both physical and mental, after the exercise induced blood changes.

In a healthy person, doing exercises primarily brings about more energy, relaxation and better feeling followed by better sleep. Also it helps make stronger bones, muscles as well as joints. They improve the functions of every individual system in the body, making for the betterment of overall physical health.

Secondly, these activities manage our weight, thereby reducing the risks of obesity, rise in cholesterol level and blood pressure, Type 2 Diabetes, Cardiac conditions as well as some types of cancers. Thirdly it helps

recover better after any type of illness, body injuries, surgeries or conditions requiring hospitalization. Researchers also found that physical exercises greatly enhance one's mood and so relieves stress, negative thoughts, distraction; helps cure anxiety, depression and like conditions. Above all, they improve one's thinking, learning, memory and various other skills. Thus it positively contributes for the mental health also. Hence it is vital to include regular *Deha vyayama* (Physical activity) regimen for improving Physical health, thereby Mental Health in Menopausal women.

**Discussion** – *Deha vyayama* brings about the lightness, ability to work, firmness and the capacity to tolerate any distress during work,<sup>[10]</sup> refers *Ayurveda*. They boost *Agni* (Digestive power) of an individual and brings down any sort of *Doshic* upheavals. Although researches show that exercise enhanced GPLD1 protein is not entering the brain directly, it was observed in mice model that some of its molecules stimulate the brain cell growth and thereby improve their learning and memory. Similar studies also reported the enhanced prefrontal grey matter volume and thereby hippocampal neurogenesis in rodents after exercise training.<sup>[11]</sup> These studies support the *Ayurvedic* guidance that *Deha Vyayama* enhances *Agni*, thereby improves the expected normal functions of all the *Dhatus* in the body. There are mainly 4 types of exercises<sup>[12]</sup> which range to- mild to moderate to high intensity exercises that are identified by WHO. But it was not possible to fix a particular uniform timeline for all. *Ayurveda* guides to sort this question by saying, development of sweating, increased breaths, lightness of body and increased heart beats- are

the indicators to stop the *vyayama*.<sup>[13]</sup> The time to develop these signs vary from one individual to the other.

### **Conclusion :**

The estimated number of Menopausal women in the world by the year 2026 is approximately 103 million.<sup>[14]</sup> Preventive measures in the forms of physical exercises are most useful in maintaining the Menopausal women's overall health. Incorporated well in time at the advent of middle age, *Deha vyayama* not only prevent symptoms related to hormonal changes affecting the body at menopause, but also save from *Akalaj Vradhhavastha lakshanas* (untimely menopausal consequences). WHO has launched the 'Global Action Plan on Physical activity 2018-2030', with a global target to reduce human physical inactivity by 15% by the end of 2030. The WHO toolkit "ACTIVE" got launched in 2018 provides all the specific technical guidance of the same.<sup>[15]</sup> Nonetheless, in India, we can make *Deha vyayama* as part of our daily routine conveniently by combining different tasks like walking, sports, running, skipping, doing Yoga, Dancing, farming etc. Sticking to such daily schedule with vivid interesting and joyful activities will condition our body structure and also maintains our brain health. These methods aid in improving the physical health and thereby optimal mental health during menopausal phase. Also by incorporating other measures of *Sadvrutta* (proper regimen) and *Sadaahaara krama* (proper diet) told in *Ayurveda*, we can potentially lead the Whole World towards Healthy menopausal life.

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