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Review Article

Relevance of Vyayama (Physical activity) for healthcare : A Review

Dhannajay¹, Dinesh Kumar Verma², N. K. Verma

¹ Deptt. Of Sharir Rachna, Mahaveer Ayurvedic Medical and Hospital, Meerut cant., meerut Uttar Pradesh, India

²Department of Rasa Shastra Shanti Ayurvedic Medical College & Hospital, Ballia Uttar Pradesh, India

³Department of Swasthavritta Rajkiya Ayurvedic College & Hospital Lucknow Uttar Pradesh, India

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Corresponding author- **Dr. Dhannajay**, Lecturer, Deptt. Of Sharir Rachna, Email: dr.dusia@gmail.com, Mobile No: 08058386711

Abstract-

Basic *Vyayam* (physical exercise) principles to establish strength in the body or any bodily activity that enhances or maintains physical fitness and overall health and wellness. It is performed for various reasons, including strengthening muscles and the cardiovascular system, honing athletic skills, weight loss or maintenance, and merely enjoyment. Frequent and regular physical exercise boosts the immune system and helps prevent the "diseases of affluence" such as cardiovascular disease, DM type-2, obesity etc. It may also help prevent depression, help to promote or maintain positive self-esteem and improve mental health. There are three *doshas* (*Vata*, *Pitta* and

Kapha) are often described as the manifestations of natural forces at work in the body. Each *dosha* is defined by two of the five natural elements: space, air, fire, water and earth. *Vata* is

resides in the spaces of your body, helping to govern the function of the nervous system. *Pitta* is closely associated with the digestive and elimination systems where as *Kapha* refers to the governing the majority of our physical composition. Exercise should align with one's *dosha*. Each *dosha* does better with certain exercises.

Key words: *Vyayam*, Physical activity, *Doshas*.

Introduction:

Ayurveda is the traditional medical system of India that is primarily a health care system aimed at prevention and cure of illness. *Vyayam*¹(physical exercise) principles have to establish strength in the body. The mind is the observer of the movement of the body and of the respiration, less active; less fit persons have a greater risk of developing high blood pressure. Studies indicate that physically active people are less likely to develop coronary heart disease than those who are inactive--even after the researchers accounted for smoking, alcohol use, and diet. Lack of physical activity can contribute to feelings of anxiety and depression. Physically active overweight or obese people significantly reduced their risk for disease with physical activity. Today, in the era of modernization there is need to check our life style that is very much influence from the western world. Our changing food habits like junk food, fast food, are a major cause to produce life style disorders which in turn produces many health hazards like Hypertension, DM & Life style disorders etc. To prevent these hazards ayurveda provides a unique concept with the theories of *Nidana Parivajana&Pathyapathya*.

Ayurvedic review:

The Bodily movement which is meant for producing firmness and strength is known as physical exercise.² In ayurvedic text says that *dosha* refers to three basic metabolic principles connecting the mind, the body and biological humour.

Sign of proper physical exercise:

Appearance of perspiration, increased respiration, lightness of the Body felling of obstruction in cardiac region etc³.

Benefits by physical exercise:

Acharyas Shusruta says that activity which produce exertion to the body are known as *vyayam* after doing it, the entire body should be massaged mildly (comfortably) benefits by physical exercise healthy growth, brilliant completion, well manifest division of the body, keen digestive fire (power of digestion), absence of lassitude, stability, feeling of lightness, cleanliness ability to with stand exertion, fatigue, thirst, heat and cold; the best of health all this accrue from physical exercise nothing else then it exists which is best to reduce corpulence (obesity), the muscles of the body become stable in the person who does exercise daily habitually diseases will not occurs in person who does exercise habitually. It makes the body beautiful to look at even of those people who are deficient in age, physique and qualities and *acharyas charaka* says that

one gets lightness, capacity to work, firmness tolerance of difficulties, diminution of impurity and stimulation of *Agni* (digestion and metabolism)⁴.

Excessive physical exercise give rise to fatigue, exhaustion, emaciation, thirst, internal haemorrhage, darkness before eyes, cough ,fever and vomiting according *acharyas charaka* and *Shusruta* says that consumption, thirst, loss of appetite, vomiting bleeding disease dizziness exhaustion,cough, phthisis,fever and dyspnoea are diseases produced by excess of physical exercises

Physical exercise should be done in an **amount** of the level of half of the strength of the person otherwise; it will kill him when *Vayu* residing in the region of the heart comes up through the mouth in other word more upward breathing that is the sign of half the strength of the person. Exercise should be done in accordance with age, strength,physique, habitat season and nature of food otherwise the person gets affected by diseases.⁵

Contraindication for exercise:

The person who are much emaciated due to excessive sexual indulgence, weight-carrying, travelling on foot and evacuative measures and are victim of anger, grief fear and exertion, the children the old and those having aggravated *vata*, those who speaks too much and loudly; are hungry and thirsty should obtain from physical exercise according to *acharyas Yogindranath Sen* and *Shusruta* says that bleeding diseases, emaciation, consumption, dyspnoea, cough

,injury in the chest and by the person who has taken meal just then who felling exhausted after meals or copulation who is suffering from thirst and dizziness.⁶

These three *doshas* are often described as the manifestations of natural forces at work in the body. **Vata** is the space and air principle and is embodied by ether. It resides in the spaces of your body, filling empty airspaces and channels, helping to govern the function of the nervous system. **Pitta** is the fire and water principle and exists within your body mainly as bile and acid, and is most closely associated with the digestive and elimination systems. **Kapha** refers to the water and earth principle, relating to the respiratory system and mucous membranes, governing the majority of our physical composition.

Exercises for vata:

Vata personalities excel in sports that require quick bursts of speed and agility. As *Vata*, it tends to get worn out; having a low reserve of energy. The worst thing folks with the *Vata dosha* can do is to physically overextend them. *Vata* have relatively flexible, loving exercise like *Yoga* and *Pilates*, where we can stretch and warm our muscles. *Vata* also like exercises where they can have fun, because they tends to get bored easily; anything new and interesting gets their attention. Best exercises for *Vata*: Low-impact activities like *Yoga*, *Pilates*, *Walking*, *Dancing*, *Weights/strength training*, *Ballet-inspired* and *bar classes*. *Vata* personalities should **avoid** anything too cardio intensive will increase the already

swift motion in their mind-body and will stiffen muscles and joints. .

Exercises for *Pitta*:

Pitta personalities excel in individual competition which requires strength, speed and stamina. The thing about *pitas* is that they are naturally muscular and pretty good athletes so they actually seek out physical activity. They really like the physicality of exercise so a *Pitta* doesn't need a whole lot of motivation to get moving. However, they need to stay cool and stay away from anything too competitive, stressful, or too hot. *Pitas* will do best with a combo of cardio (they love to sweat), like cycling or swimming and a consistent yoga practice is very helpful to distress. Cool air and cool water will make *Pitta* feel like they've had an awesome workout but will not overheat them. Best exercises for *Pitta*: Competitive or team sports, Softball, Tennis, Baseball, Cooling sports like Swimming diving and other water sports.

Exercises for *Kapha*:

Kapha personalities excel in endurance and mind-body skills; *Kaphas* do well under pressure because of their stable and easy-going nature. *Kaphas* have a lot of stored-up energy, allowing them the ability to thrive during strenuous exercise—actually, need to move and sweat to burn off that energy so that it doesn't turn to bulk. Best exercise for *Kapha* like as Stimulating, regular exercise, Bodybuilding, Running, Treadmill. Cardio is best for *kapha*. Cardio

can range from run-walking, power walking, elliptical trainer, or anything aerobic.

Season and exercise:

During summer and rainy season, there is increase of *Vata* and *PittaDosha* respectively. Hence during these periods, it is best to resort to mild to moderate form of exercise whereas during winter, we can go for full range of workout, to keep *Kapha* in balance. It is most beneficial for these people especially during cold and spring season exercise should be done daily; in all season by mean who desire their own wellbeing⁷

Modern review:

Physical activity is the term used to describe any kind of everyday activity where the body's movement burns calories such as walking the dog, vacuuming, and walking upstairs. Exercise usually describes a pre-planned physical activity that involves a series of repetitive movements that are performed to strengthen or develop a particular part of the body, including the cardiovascular system. Examples of exercise would be playing tennis, running, cycling, walking, swimming or rowing. Physical activity includes exercise as well as other activities which involve bodily movement and are done as part of playing, working, active transportation, house chores and recreational activities. Regular physical activity and sport, especially during childhood and adolescence, promotes proper growth and development, maintains health and counteracts negative risk factors such as cigarette smoking, obesity, type 2 diabetes,

osteoporosis, hypertension, coronary heart disease and other ailments.

The beneficial effects on particular organ are as follows⁸:

Brain: Exercise has been shown to ease anxiety, improve mood and fight depression. It promotes the release of a mood-lifting brain chemical called serotonin and the release of endorphins, natural feel-good painkilling substances.

Skin: Moderate exercise stimulates circulation and so brings oxygen and nutrients to the skin. Sweating, which is increased by exercise, allows the body to excrete wastes via the surface of the skin.

Lungs: Regular exercise increases lung capacity.

Heart: Regular exercise strengthens and builds the heart muscle so it pumps more effectively and also Regular physical activity or exercise reduces your chance of getting heart disease.

Immune system: Moderate exercise boosts the immune system.

Blood pressure: Regular physical activity can significantly reduce the risk of developing high blood pressure and can help to lower blood pressure in those who already have high blood pressure and improve lipid profile.

Bones: Weight-bearing exercise (e.g. walking, weightlifting) helps preserve bone mass and thus protects against osteoporosis.

Muscles: Exercise builds and strengthens muscles, which can protect the bones from injury, and support and protect joints affected by arthritis. Strong muscles also give stability and improve balance and coordination.

Joints: Exercise lubricates the joints, and reduces joint pain and stiffness. It also helps people with arthritis by increasing flexibility and muscle strength.

The "**Global Recommendations on Physical Activity for Health of WHO**"⁹ address three age groups: 5–17 years old, 18–64 years old and 65 years old and above. These age groups were selected taking into consideration the nature and availability of the scientific evidence relevant to the prevention of noncommunicable diseases through physical activity

Recommended levels of physical activity for children aged 5 - 17 years:

- Children and youth aged 5–17 should accumulate at least 60 minutes of moderate- to vigorous-intensity physical activity daily.
- Amounts of physical activity greater than 60 minutes provide additional health benefits.
- Most of the daily physical activity should be aerobic. Vigorous-intensity activities should be incorporated, including those that strengthen muscle and bone*, at least 3 times per week.

*For this age group, bone-loading activities can be performed as part of playing

Recommended levels of physical activity for adults aged 18 - 64 years:

- Adults aged 18–64 should do at least 150 minutes of moderate-intensity aerobic physical activity throughout the week or do at least 75 minutes of vigorous-intensity aerobic physical activity throughout the week or an equivalent combination of moderate- and vigorous-intensity activity.
- Aerobic activity should be performed in bouts of at least 10 minutes duration.
- For additional health benefits, adults should increase their moderate-intensity aerobic physical activity to 300 minutes per week, or engage in 150 minutes of vigorous-intensity aerobic physical activity per week, or an equivalent combination of moderate- and vigorous-intensity activity. Muscle-strengthening activities should be done involving major muscle groups on 2 or more days a week.

Recommended levels of physical activity for adults aged 65 and above

- Older adults should do at least 150 minutes of moderate-intensity aerobic physical activity throughout the week or do at least 75 minutes of vigorous-intensity aerobic physical activity throughout the week or an equivalent combination of moderate- and vigorous-intensity activity.

- Aerobic activity should be performed in bouts of at least 10 minutes duration.
- For additional health benefits, older adults should increase their moderate-intensity aerobic physical activity to 300 minutes per week, or engage in 150 minutes of vigorous-intensity aerobic physical activity per week, or an equivalent combination of moderate- and vigorous-intensity activity.
- Older adults, with poor mobility, should perform physical activity to enhance balance and prevent falls on 3 or more days per week.
- Muscle-strengthening activities, involving major muscle groups, should be done on 2 or more days a week.

When older adults cannot do the recommended amounts of physical activity due to health conditions, they should be as physically active as their abilities and conditions allow.

Discussion:

Ayurveda is a science and art of living. As such, it is not only concerned with the treatment and cure of the diseases but also aims to relieve one from all categories of suffering i.e. Physical, Mental, Social and Spiritual. So, ayurveda is not just a system of medicine but also deals with all aspects of life. Exercise is essential to good health and quality of life. Physical activity and exercise exerts a positive influence on muscular-skeletal, cardiovascular, respiratory, hormonal-immunological, hematological, neuro-sensory and gastrointestinal

systems. There are three age groups for recommendation of exercise. There are three *doshas* (*Vata*, *Pitta* and *Kapha*) are often described as the manifestations of natural forces at work in the body. There are various exercises for three *doshas*. Excessive physical exercise give rise to fatigue, exhaustion, emaciation, thirst, internal haemorrhage, cough, fever and vomiting. Exercise and physical activity are a great way to feel better, gain health benefits. As a general goal, aim for at least 30 minutes of physical activity every day. If you want to lose weight or meet specific fitness goals, you may need to exercise more. Remember to check with your doctor before starting a new exercise program,

especially if you haven't exercised for a long time, have chronic health problems, such as heart disease, diabetes or arthritis etc.

Conclusion:

Ayurveda incorporate several principles that can be effectively used for improving health. Physical exercise is a form of physical activity. There is a strong relationship between exercise and health. Frequent and regular physical exercise boosts the immune system and helps prevent the various diseases. Exercise should be done in accordance with age, strength, physique, habitat season and nature of food or *doshas* otherwise the person gets affected by diseases.¹⁰

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