

# Role of Yogic Sukshma Vyayama in the Management of Knee Osteoarthritis (Janu sandhigata vata)

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**Abstract:-** Knee osteoarthritis (OA) is a common condition where the knee joint wears down, causing pain, stiffness, and difficulty moving. Doctors usually try to manage the symptoms and help people stay active using medications and things like physical therapy. Yogic Sukshma Vyayama, which involves gentle exercises, breathing techniques, and a focus on overall well-being, is being explored as a possible treatment. This article will look at how Sukshma Vyayama might help people with knee OA, including how it affects the body, how well it works in practice and its potential as a helpful therapy.

**Keywords:-** Knee Osteoarthritis, Yoga, Yogic Sukshma Vyayama

## I. INTRODUCTION

Negative life experiences can contribute to a decline in bodily function due to irregular routines, poor dietary choices, lack of physical activity, and an imbalance of the three doshas in the body. As a result, the flow of life energy, or prana, becomes disrupted. When prana weakens because of a tridosha imbalance, the body may develop various diseases, such as aagantuja or nanatmaja, which stem from dosha imbalance. This is particularly true when the Vata dosha becomes unbalanced, leading to the onset of any of the 80 types of Vata-related disorders. Such imbalances can result in a person experiencing discomfort and deteriorating health (Gupta et al., 2022). Sandhigata Vata is one of the 80 Vata diseases, and its symptoms are often compared to osteoarthritis (OA), with both conditions sharing similar manifestations (Joshi et al., 2011). OA is the second most prevalent rheumatological disorder in India, affecting 22–39% of the population. Globally, it affects 20% of men and 41% of women, often leading to pain or dysfunction in 20% of older adults (Ebnezar et al., 2011). The knee is the joint most commonly affected by OA, with a higher incidence in older adults, women, and those who are overweight. The disease progresses slowly, typically involving both knees, limiting range of motion (ROM), which can significantly reduce the quality of life (Ghasemi et al., n.d.). OA is categorized into primary and secondary types. Primary OA, the most common form, develops without a prior health condition but is linked to risk factors such as aging, female sex, ethnicity, sedentary lifestyle, genetic predisposition, obesity, muscle weakness, joint injuries, and nutritional deficiencies, including a lack of vitamins D, C, and K.

Secondary OA occurs as a result of pre-existing conditions like joint abnormalities or other forms of arthritis such as rheumatoid arthritis or gout. The primary goal in managing OA is to reduce joint pain and preserve function, which can be achieved through pharmacological, non-pharmacological, and surgical approaches in severe cases (Biswas et al., 2022).

Yogic Sukshma Vyayama, often referred to as subtle or micro exercises, is a series of gentle, slow-paced movements that serve as a preparatory practice for deeper yogic postures and meditation. Rooted in ancient yogic traditions, Sukshma Vyayama focuses on stimulating and energizing the body's energy channels, improving flexibility, and enhancing circulation. Unlike intense physical workouts, these exercises emphasize mindfulness, breath awareness, and a holistic approach to wellness, which helps relieve stress, improve joint mobility, and promote overall health. Yogic Sukshma Vyayama, often referred to as subtle or micro exercises, is a series of gentle, slow-paced movements that serve as a preparatory practice for deeper yogic postures and meditation. Rooted in ancient yogic traditions, Sukshma Vyayama focuses on stimulating and energizing the body's energy channels, improving flexibility, and enhancing circulation. Unlike intense physical workouts, these exercises emphasize mindfulness, breath awareness, and a holistic approach to wellness, which helps relieve stress, improve joint mobility, and promote overall health.

## II. LITERARY REVIEW

To assess existing research relevant to the current study, a systematic search was conducted in reputable academic journals from prominent databases, focusing on studies published up to 2024. The search was carried out using various combinations of keywords such as yoga, yogic Sukshma vyayama, and knee osteoarthritis to identify prior research on the topic, adhering to specific inclusion criteria.

The daily routine for participants consisted of a 40-minute session that included yogic warm-up exercises, which combined sequential muscle contraction and relaxation, strengthening techniques, and specific knee-focused practices. Participants showed significant improvements across all variables assessed by the SF-36 score, reflecting better physical function and reduced pain. The study highlighted that the integrated yoga therapy

approach was more effective than the control group in alleviating knee osteoarthritis symptoms (Ebnezar et al., 2011). Another study examining the effects of 8 weeks of Hatha yoga on women with knee osteoarthritis revealed notable improvements in pain, daily activities, sports, leisure activities, and overall quality of life. These findings suggested that yoga can be a valuable conservative treatment, complementing traditional medical methods.

Each yoga session also featured a structured warm-up lasting 15 minutes, which played a key role in preparing the body for the main exercises. This warm-up phase helped improve flexibility, minimize injury risk, and enhance performance, contributing to the therapeutic effects for knee osteoarthritis patients. Overall, the results emphasized the value of incorporating yoga and structured warm-ups into rehabilitation programs for managing knee osteoarthritis effectively (Ghasemi et al., n.d.). The chair yoga intervention's warm-up exercises were essential for improving functional fitness, preventing injuries, engaging participants, and supporting both physical and mental health in older adults with knee osteoarthritis (Yao et al., 2023).

The findings from the above studies indicate that while the impact of yogic Sukshma vyayama on health promotion is somewhat limited, the term "warm-up" has gradually replaced it. Furthermore, there was a lack of detailed theoretical explanations regarding yogic Sukshma vyayama. Therefore, this current research critically examines the role of yogic Sukshma vyayama in managing knee osteoarthritis, drawing insights from primary yogic texts.

#### A- Problem Statement

"What is the role of Yogic Sukshma Vyayama in the management of Knee osteoarthritis?"

#### B- Research Design

"Practicing specific joint exercises, as outlined in prominent yogic texts, is an effective approach for managing knee osteoarthritis.."

#### C- Need of the Study

The primary goal in managing osteoarthritis is to alleviate joint pain and prevent loss of functionality. Management strategies include pharmacological treatments, non-pharmacological approaches, and surgical interventions in advanced cases. Pharmacological options, such as oral, topical, and intra-articular medications, often begin with non-steroidal anti-inflammatory drugs (NSAIDs), which, despite their efficacy, are associated with side effects like gastrointestinal and cardiovascular complications. Surgical procedures, including joint replacement, are reserved for severe cases where other treatments fail. According to the World Health Organization (WHO), osteoarthritis affects approximately 365 million people globally, with the knee being the most commonly impacted joint, followed by the hip and hand. This study emphasizes the role of yogic Sukshma Vyayama as a preventive measure for knee osteoarthritis.

#### D- Objective of the Study

- To comprehensively analyze the concept of yogic Sukshma Vyayama for managing knee osteoarthritis.
- To highlight the role of appropriate pranayama practices in addressing Vata-related conditions.
- To provide a detailed explanation of the Sukshma Vyayama techniques suitable for managing knee osteoarthritis.

#### E- Research Methodology

This study adopts a descriptive research design, focusing on qualitative analysis. The methodology relies entirely on secondary data, ensuring the reliability and depth of the findings.

### III. KNEE OSTEOARTHRITIS (JANUSANDHIGATA VATA)

This long-term degenerative arthritis is most commonly observed in middle-aged and elderly individuals, particularly those with excess body weight, poor dietary habits, or a sedentary lifestyle. It often occurs in joints previously injured, where the damage resulted in incomplete correction of structural and energy imbalances. Additionally, osteoarthritis may be linked to elevated calcium levels in the body, which could stem from excessive dietary intake or dysfunction of the parathyroid glands located in the neck. (Karmananda,2001).

Ayurvedic Concept of Janusandhigata Vata-In Ayurvedic texts books, Sandhigata vata is a disease described under Vata vyadhi that resembles osteoarthritis. Acharya Charak describes Sandhigata vata as given below.

"The aggravation of vata in the joints leads to symptoms such as swelling, which feels like an air-filled leather bag upon palpation, and pain experienced during attempts to extend or contract the joints".

### IV.ROLE OF YOGIC SUKSHMA VYAYAMA IN THE MANAGEMENT OF KNEE OSTEOARTHRITIS

Sukshma Vyayama Sukshma Vyayama refers to a structured set of physical and breathing exercises designed to engage all the joints in the body sequentially, warming it up effectively. This practice has a profound purifying effect on the body's energy. Among the ancient yogic traditions, Sukshma Vyayama stands out as one of the oldest but lesser-known practices. It was originally conceived and developed by Maharishi Karthikeyaji Maharaj from the Himalayas, who was deeply compassionate and empathetic toward humanity. He passed on this knowledge to Swami Dharendra Brahmachari, who popularized it globally.

The defining characteristic of Sukshma Vyayama is its holistic approach to exercise. Every muscle, joint, and organ is addressed through specific exercises, each synchronized with particular breathing patterns, body positions, and mental focus. This practice emphasizes the subtle body (Sukshma Sharira) while also benefiting the physical body

(Sthula Sharira). Another distinct practice that focuses more on the physical body is Sthula Vyayama.

➤ *Padanguli Naman (Toe bending)*

This exercise is the first in the Pawanmuktasana Part-1 (Anti-Rheumatic group) from "Asana Pranayama Mudra Bandha." Begin by sitting in the base position with legs outstretched and feet together. Place your hands slightly behind the buttocks for support. Slowly move the toes of both feet backward and forward while keeping the feet upright and ankles relaxed.

➤ *Goolf Naman( Ankle bending)*

Remain Maintain the base position. Gradually move both feet forward and backward, bending them at the ankle joints. Stretch the feet forward toward the floor and then pull them back toward the knees.

➤ *Goolf Chakra (Ankle rotation)*

Remain From the base position, rotate both feet in a clockwise direction 10 times, then repeat in an anti-clockwise direction for another 10 rotations

➤ *Janu Naman (Knee bending)- Stage 1*

Stay Stay in the base position. Bend the right knee, bringing the thigh toward the chest, and clasp your hands under the right thigh. Straighten the right leg while pulling up the kneecap, keeping the hands under the thigh and arms extended. Lower the leg, then bend it back toward the chest, bringing the heel near the groin. Keep the head and spine straight. Repeat this sequence 10 times with each leg.

➤ *Janu Chakra (Knee crank)*

Similar to Janu Naman, this exercise involves rotating the bent leg in large circular motions instead of straightening it. These exercises, part of the anti-rheumatic group, are designed to relieve tension from the body's joints. They are particularly beneficial for individuals suffering from arthritis, rheumatism, high blood pressure, heart conditions, or other ailments that restrict vigorous activity. By removing energy blockages in the joints, these practices improve coordination, self-awareness, and confidence. (Satyanand,2002).

➤ *JANU-SAKTI-VIKASAKA*

This is the 44th exercise from the 48 Sukshma Vyayamas taught by Dhirendra Brahmachari. Stand upright and alternately jerk one leg forward and backward, ensuring that the heel touches the buttock when moving the leg backward. Keep the upper body straight throughout the exercise. Perform this exercise 10 times with each leg. It is particularly effective for enhancing blood circulation in the knee area and is highly beneficial for individuals with rheumatic conditions or football players.

## V. DISCUSSION AND CONCLUSION

The practice of Sukshma Vyayama, deeply rooted in ancient yogic traditions, highlights the importance of integrating physical movements, breath control, and mental focus to address both subtle and gross aspects of the human body. The exercises discussed, such as Padanguli Naman, Goolf Naman, and Janu Shakti Vikasaka, serve as evidence of the system's detailed approach to improving joint flexibility, circulation, and energy flow. These practices are particularly beneficial for individuals with limited physical mobility or health conditions that restrict rigorous activity, such as arthritis or cardiovascular issues.

The alignment of breathing techniques with specific physical movements ensures that each exercise not only strengthens the body but also promotes mental clarity and self-awareness. The unique ability of Sukshma Vyayama to target individual body parts and its emphasis on subtle energy purification sets it apart from other forms of physical exercise, making it a valuable tool for holistic health. Furthermore, the influence of luminaries like Maharishi Karthikeyaji Maharaj and Swami Dhirendra Brahmachari underscores the timeless relevance of this practice in modern wellness paradigms. Sukshma Vyayama exemplifies a balanced approach to achieving physical health, mental clarity, and energetic harmony. By addressing the intricate connections between body and mind, it offers a gentle yet powerful method for relieving tension, enhancing flexibility, and fostering self-confidence. This system remains a testament to the enduring wisdom of ancient yoga, providing accessible solutions for contemporary health challenges. As more individuals explore its benefits, Sukshma Vyayama continues to stand as a vital practice in the journey toward holistic well-being.

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