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## Role of yoga on Sandhi Vata (Osteoarthritis)

**Dr. Ram Kumar Agarwal, Dr. Rachna Jain and Dr. Smita Paul**

### Abstract

Sandhi vata is described under vatavyadhi in all ayurvedic text. Charak was described separately "sandhigataani" but it was not included under 80 types of nanatmajavatavyadhi. The symptoms of sandhi vata are similar to osteoarthritis which is the most common degenerative joints disease in older people. Yoga, is a form of mind-body therapy originating in ancient India and in the Western context constitutes a number of practices, including physical practices (postures, asanas), breath regulation techniques (pranayama), mental practices (meditation, mindfulness), and relaxation with some yoga styles also incorporating discussions of yoga philosophy and lifestyle advice. Yoga has become a popular means of achieving and maintaining well-being and health. The prevalence and burden of osteoarthritis disorders, the reported beneficial effects of yoga practice, and increased publication of clinical trials indicate that a systematic review is required.

**Keywords:** Yoga, osteoarthritis, sandhigataavata

### Introduction

Osteoarthritis (Janu-Sandhigataavata) is one of the most common rheumatological problem and is most frequent joint disease with prevalence of 22% to 39% in India. This is the most common cause of locomotor disability in the elderly. On the other hand Ayurveda has realized this problem in ancient era and has enumerated various treatment modalities both internal and external, out of which one of the most important one remains yoga. Yoga is a 5000 years old Indian philosophy that combines exercise, breathing, diet, relaxation and meditation. It includes physical health, mental or emotional health, spiritual health, intellectual health and social health of a person. By promoting physical health & mental disciplines it makes body stronger, healthier and mind calmer, more controlled. Hatha yoga is probably the best known form of yoga which includes asanas (Body posture), pranayama (control of vital energy through breath control), kriyas (cleansing practices), meditation & relaxation to reduce stress and build self-confidence. Yoga promotes flexibility and suppleness, strength & stamina, tones the internal organs, improve concentration. Yoga movements stretch all the major muscle group & release build up tension. Through posture work, as the body circulation increases and bones are properly aligned in age related arthritis. Yoga is a gradual progressive process. We should not expect immediate result. Arthritis is a term referring to more than 100 kinds of disease that affects joints. Common symptoms include joint swelling, lasting joint pain and warmth in a joint. Effective prevention involves knowing risk factors, monitoring the health and making lifestyle changes.

### Types of arthritis

- Non-inflammatory arthritis- e.g. Osteoarthritis
- Inflammatory arthritis- e.g. Rheumatoid arthritis
- Metabolic arthritis- e.g. Gout
- Infectious arthritis- e.g. Septic arthritis, tubercular arthritis, fungal arthritis
- Hemorrhagic arthritis- e.g. Hemophilia & sickle cell anemia

### Prevention of arthritis

- Maintaining a healthy weight (to decrease stress on knees, hips & lower back)
- Eating a well-balanced, healthy diet
- Exercising regularly (strengthening the muscles, decreases the chances of develop arthritis)

**Definition of osteoarthritis**

Osteoarthritis is a degenerative joint disease. It is condition affecting the joints. It can cause pain & swelling in the joints. OA is an arthritis that causes loss of cartilage of joints. Cartilage absorbs shock movement. When cartilage loose, the bone rub together as the tissues no longer provides a cushion between bones of joint. It can affect any joint but mostly it affects the knees, hips, lower back, small joint of fingers & bases of thumb & great toe.

**Causes**

- Ageing, Obesity, Injury a joint, Hereditary conditions

**Signs and symptoms**

The symptoms may vary from person to person. Symptoms also depend upon the area if joints like knee, hip.

- Joint pain, which may get worse day by day.
- Joint may be swelled, which may be painful to touch.
- stiffness may present
- Crepitus, crackling sensation may be experienced when moving with an affected joint.

**Yoga in OA****Sukshmvyaam**

Padangulimaman, Goolfnaman, Goolf chakra, Goolfghoornan, Janunaman, Ardhatitaliasan, Poornatitaliasan, mushtikabandhan, manibandhanaman, manibandh chakra, kehuninaman, skandha chakra, greevasanchalana

**Asanas**

Trikonasana, Vriksasana, Bhujangasana, Dhanurasana, Halasana, Makrasana, paschimottansana, Shvasana

**Pranayama**

Sheetkari, Bhramri

**Others**

Nadishudhhi, Kapalbhathi

**Trikonasana**

- Gentle twisting in trikonasana can be beneficial to relieve pain.
- Strengthen the legs and ankles.
- Primary muscles stretched like front leg hamstring, upper side abdominal and back muscles.
- Improve flexibility of the spine & alleviate back tension.
- Primary muscles strengthened like front & back leg quadriceps and back leg gluteal muscles.

**Vriksasana**

- Ideal to strengthen legs & back to improve balance.
- Gentle & easy way to stretch arms.
- Muscles stretched are- biceps brachii, triceps, deltoid, supraspinatus, infraspinatus, teres minor, teres major, serratus anterior, quadratuslumborum, gluteus minimus, gluteus maximus, biceps femoris, semitendinous, semimembranous, soleus, and gastrocnemius.
- Helps in increasing circulation around the joint which may help to strengthen the joint & make them more flexible.

**Bhujangasan**

- Strengthen the muscles of upper back, hands.

- Removes stiffness of the muscles and increase flexibility of muscles so helpful to reduce pain during movement.
- Good for elbow, finger, shoulder, spine, neck, hip joint.
- Muscles stretched are - infraspinatus, triceps brachii, spinal extensor, gluteus maximus, hamstring, abductor lateralis, psoas major, pectineus.

**Dhanurasan**

- Improves blood circulation generally.
- The spinal column is realigned and ligaments, muscles and nerves are given a good stretch, removing stiffness.
- Muscles stretched during performing it are- semitendinosus, semi-membranous, adductor magnus, gluteus maximus, pectoralis major.

**Halasan**

- Stretches all muscles and ligaments of calves and thighs, resulting in leg flexibility.
- Relieve stress and fatigue.
- Muscles stretched are – Hamstring, gastrocnemius, soleus, triceps brachii, spinal extensors.

**Paschimottansana**

- The seated forward bending provides a good stretch to the spine & increase lubrication in joints.
- It relaxes arms & increase blood flow to the joints.
- Muscles stretched are- hamstring, gastrocnemius, spinal extensor, internal oblique.

**Pavanmuktasana**

- It helps release the air trapped in the joints.
- This posture also beneficial in improving blood circulation to the joints, easing pain.

**Sheetkari**

- Cools body & mind so reduce mental excitation.
- Encourage free flow of prana throughout body.
- It affects important brain centers associated with biological driven & temperature regulator.

**Bhramri**

- Relives stress & tension.
- Alleviates anger, anxiety, reducing blood pressure.
- Speed up healing of body tissues.

**Naadishodhana**

- Clears pranic blockage & balance Ida, pingla and sushumnanadi.
- It ensures that whole body is nourished by extra supply of oxygen.
- Increases vitality and lowers level of stress by harmonizing the pranas.

**Kapalbhathi**

- Clears pranic blockage & balance Ida, pinglanadis and sushumnanadi.
- Ensures that whole body is nourished by extra supply of oxygen.
- Increases vitality and lowers level of stress by harmonizing the pranas.

**Diet in osteoarthritis**

- To lose weight - avoiding extra fat, doesn't take weight off your knees. Body fat is metabolically active, capable of producing hormone & chemicals that actually increase level of inflammation.
- Vit. C - The antioxidant vit C is necessary for cartilage development.  
E.g. - Tropical fruits (Papaya, guava, pineapple), Citrus fruit, Strawberry, Tomato's, Cruciferous vegetables-cauliflower
- Vit. D - Research is mixed about vit D, but some studies in arthritis & RA show that vit D can help prevent the breakdown of cartilage & decrease the risk of joint space narrowing.  
E.g. - Sea food, Eggs, Fortified milk, Orange juice
- B-carotene - Another powerful antioxidant that helps destroy free radicals before they can cause excessive damage to joint.  
E.g. - Sweet potatoes, Winter squash, Greens like spinach, Peppermint Leaves, Tomato, Asparagus
- Omega 3 fatty acids - It work to decrease inflammation by suppressing production of cytokines enzymes that breakdown cartilage.  
E.g. - Walnut, Pacific oysters, Omega 3 fortified eggs
- Bioflavonoids - Onion, Green tea, Black current, Blue berries
- Spices - Turmeric, Ginger

**Conclusion**

Yogic practices help to enhance the mobility of joints and also enhance pain threshold and help in reducing the pain in Sandhigata. In arthritis since movements lubricates the joints and keep them active. It helps the synovial fluid to circulate into all the chinks & cervices inside the joint. They also reduce stress and induce relaxation. These modalities form an easy and cost effective non-pharmacological management devoid of side effects. These measures have positive effect of stress reduction which can be helpful in a wide range of diseases.

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