



# Indian Journal of Agriculture and Allied Sciences

A Refereed Research Journal

ISSN 2395-1109

e-ISSN 2455-9709

Volume: 3, No.: 2, Year: 2017

www.mrfsw.org

Received: 20.05.2017, Accepted: 20.06.2017

## YOGA AND PRANAYAMA DURING PREGNANCY

Anjali Kumari<sup>1</sup>, Ajay Kumar Pandey<sup>2</sup> and Ratnesh Kumar Rao<sup>3</sup>

<sup>1</sup>M.Sc. Student, Department of Biotechnology, Aurnachal University, Assam, E-mail: raanjali1994@gmail.com, <sup>2</sup>Assistant Professor, Department of Kayachikitsa, Faculty of Ayurveda Institute of Medical Sciences, Banaras Hindu University, Varanasi, and <sup>3</sup>Secretary, Mahima Research Foundation and Social Welfare, 194, Karaundi, BHU, Varanasi-221005, UP, India, E-mail: mrfsw\_kvns@yahoo.com, mahimafound@gmail.com Corresponding Author: Ratnesh Kumar Rao

**Abstract:** Yoga is used for a variety of immunological, neuromuscular, psychological and pain conditions. Recent studies indicate that it may be effective in improving pregnancy labour, and birth overcomes. The purpose of this paper is to evaluate the existing literature on Yoga and pranayama during Pregnancy. Six databases were searched using the terms "Yoga and Pranayama during Pregnancy" safe pranayama and Yoga exercise during pregnancy. Yoga poses to avoid during pregnancy.

**Keywords:** Yoga, Pranayama, Pregnancy.

**Introduction:** Yoga is an ancient term originated from Sanskrit word which simply means its an mind-body exercise practices, originated in India and is becoming increasing recognized and used world wide as well as many develop nation practice this technique in immunological, neurological and Sociological, physiological in pain condition. We people of India practice yoga since vadic age when Mahashi Patanjali Spreaded his knowledge of yoga through his book "yog sutra" <sup>[1]</sup> which may be called as a bible for yoga practicener. The term yoga means control over your Mind–Body and Soul. It means to work towards unified experience of the self and improved health. Most recognized for its potential to create balance along emotional, mental, physical, and spiritual dimensions, yoga is a comprehensive system that uses physical postures (asana), breathing exercise (pranayama), concentration and meditation (dharana and dhyana) and contemplative practice. <sup>[2]</sup> Although there are a plethora of lineage and schools of yoga that are offered in modern society, practices typically include at least the physical postures and breathing exercises. Yoga is through to other nervous system regulation and physiological system functioning (e.g., immune, endocrine, neurotransmitter and cardiovascular) and improve psychological well being (e.g., frequency of positive mood states and optimism)

and physical fitness (eg., strength, flexibility, and endurance).

Pregnancy is a condition in which women undergo distinct physiological changes and stress and is accompanied by unique physical and psychological demands <sup>[3-4]</sup>. There is a need to manage the various physical, emotional, mental, and pain states that arise throughout the stages of pregnancy and labour. The well being and quality of life of the mother is critical for optimal pregnancy outcomes; self-soothing techniques, psycho-education and relaxation are particularly important in this transitional and meaningful time. Maternal stress and anxiety during pregnancy is associated with a host of negative consequences for the fetus and subsequent development. <sup>[5-6]</sup> For instance, fetal exposure to maternal stress and stress-related peptides is a risk actor for adverse outcomes on the programming of the nervous systems and brain morphology of feturse, infants, and children. Early gestational stress exposure is associated with negative outcomes at different developmental stages, slowed maturation and behavioural response patterns in fetuses, alterations in neonatal stress regulation and behavioural reactions to stress, blunted cognitive functions and emotional and behavioural problems in infants and toddlers, and reduced brain volume in areas associated with cognitive functions in children.

Pranayama is also known as yogic breathing or controlled deep breathing. Prana means energy in Sanskrit and ayama, means distribution of energy. When we breathe in, we inhale oxygen, which our body needs to function. When we breathe out, we exhale carbon dioxide a waste gas that our body doesn't need. Most of us take quick shallow breaths which don't benefit our body as much as deeper breaths. We also do not exhale properly due to which the waste gas is not expelled completely from our body. Pranayama teaches you to breathe well, with an equal balance of nourishing oxygen inhaled and unwanted carbon dioxide exhaled. This keeps your body oxygenated giving you more energy.

**Safe Pranayama and Yoga Exercise during Pregnancy:** Practicing yoga during pregnancy, prepares your mind and body for easy and safe delivery. Proper yoga practices minimize the common pregnancy symptoms like morning sickness and constipation. Yoga strengthens the abdominal organs and muscles.<sup>[7]</sup>



**Yoga Exercise during Pregnancy Gentle Butterfly Poses (Baddha Konasana):** 'Baddha Konasana is a very popular' Safe and effective yoga exercise during pregnancy. For easy and smooth child delivery baddhakonasana is very helpful practicing butterfly pose regularly stimulates and improves the function of abdominal organs.<sup>[8]</sup>



#### **Benefits of Boddha Konasana Butterfly Pose**

1. This asana is very beneficial for pregnant woman in easy and smooth delivery.
2. Stimulate and improve the function of reproductive system in men and women.
3. Cures health of reproductive system.
4. Improves blood circulation.
5. It helps to stimulate the abdominal organs, prostate glands bladder and kidneys.
6. It acts as a stress reliever.
7. It helps in curing menstruation problems.
8. Improve flexibility in the groin and in the hip region and gives a good stretch for inner thighs, groin and knees.

#### **Steps for Baddha Konasana Butterfly Pose**

1. Sit straight on the floor with erect spine and bend your knees by bringing feet as close as possible try to touch the soles of your feet each other.
2. Hold your feet tightly with your hands.
3. Inhale deeply while exhaling press the thighs and knee downward towards the floor by pressing your elbows on the floor or on the knees.
4. Keep breathing normally and start flapping like a butterfly by bringing thighs up and down slowly. Baddha Konasana is the best for pregnant women. For easy and smooth delivery you have to practice some simple and safe yoga poses.

This is a very well known best exercise for pregnant women. It looks like a butterfly flapping its wings so this pose is called butterfly pose.

#### **Precautions**

1. A person suffering from groin and knee injury should not perform this asana, if you are able to perform then keep the blanket under your thighs for support.
2. Avoid Baddha Konasana in menstruation days or practice it with expert guidance.
3. Sciatica patients should not practice this pose or you can use pillows to sit.

**Trikonasana (Triangle Pose):** Trikonasana (Triangles pose) is the best exercise for pregnant woman. It strengthens the hips, back, arms, thighs and leg muscles as well as improve the function of the body help to reduce stress, anxiety and depression "Trikona" means "three angles" and "Asana" means "Pose" in Sanskrit this asana look like the triangle shape so it is called as trikonasana this asana stretches the muscles and improve the function of the body. This is a good exercise for pregnant woman.<sup>[9]</sup>

### TRIKONASANA



#### Steps for Trikonasana (Triangle Pose)

1. First to stand by keeping distance between two feet as shown in the above image.
2. Now turn your right leg at around 90 degrees as shown in fig.
3. While inhaling raise the both hands in the upward direction in such a way that they will be parallel to the ground and palms facing downwards.
4. Now bend at right side while exhaling and your left hand facing toward the ceiling and right hand touching your right toe as shown fig.
5. Keep your eyes facing towards the ceiling (towards the left palm) and do not bend forward or backward pregnant women should of a well or your friend to mainted the balance.
6. Keeping inhaling deeply and while exhaling relax the body more and more.
7. Stay for 1-2 mintues in the posture.
8. Now inhale and get to original position.
9. Repeat from bending left side then the right side.

**Duration:** Repeat 3-5 times from both sides.

#### Benefits of Trikonasana (Triangle Pose)

1. Stimulate and improve the function of blood through the entire body.

2. Strengthens and stretcher the hips, back arms, thighs and leg.
3. Reduces blood pressure, stress and anxiety.
4. Cure indigestion
5. Gives flexibility to groins, hamstrings and hips.
6. Transactional clam the mind.
7. Stimulate the function of kidney.
8. Helps to remove fats from the waist and thighs
9. This asana improve the balances and increase concentration.

#### Precaution

1. Low or High blood Pressure patient should not practices trikonasana.
2. Those suffering from back and spinal injuries should not perform trikonasana.
3. Practice under expert guidance and consult a doctor before practices asana. Especially pregnant women if there are complication.



**Bhramari Pranayama:** Bhramari pranayama is the effective breathing exercise to releases agitation, frustration and anger and calming mind. It is very helpful for pregnant women for easy and trouble free childbirth. Bhramari pranayama is excellent breathing exercise which plays an important role in relapsing agitation Frustration and anger. It is the best breathing exercise in calming your mind. Bramari is the type of Indian bee and pranayama means breathing. So it is called as Bharamari pranayama in this type of pranayama when we exhale making a humaning sound, it resembles the typical humming sound of bee. So you can

understand why this breathing exercise is called as Bhramari pranayama lets see steps and benefits of pranayama as follows.

#### Steps for Bhramari Pranayama (Humming Bee Breath)

1. Sit straight in the padmasana or Sukhasana and press your tragus with your thumb.
2. Place your index fingers on the forehead and with the remaining fingers close your eyes.
3. Starts inhaling through both the nostril deeply and slowly.
4. By keeping mouth close exhale by making a humming sound bee like humming sound say 'OM' in soft humming sound.
5. Feel your body releases impurity for your body and experiencing positive energy.

**Duration:** Practice daily for 3 to 5 minutes.

#### Benefits of Bhramars Pranayama (Humming Bee Breath)

1. It relieve tension anger and anxiety.
2. Effective against hypertension
3. Cures sinus problem.
4. Bharmars Pranayama control the high blood pressure and cure it.
5. Helps to stay calm and bring stability in mind.
6. Cures the problems related to nervous system.
7. During pregnancy it is very helpful for pregnant woman for easy trouble free childbirth.

#### Precaution

1. It should be practice under expert guidance.
2. People having heart disease should not hold their breath for long fire.
3. Pranayama should be done on empty stomach.
4. If you fell dizzy while practicing, stop the exercise and start normal breathing.
5. Consult a doctor if you are suffering from any ear problem or and medical ailment before doing Bhrami pranyama.
6. Should maintain gap of 5 hours between your meal or lunch.
7. Better to practices in the morning in fresh air.

**Anulom Vilom Pranayama:** Anulom vilom pranayama is the popular breathing yoga exercise during pregnancy. It helps to calm the mind and releases stress and anxiety. Best and safe breathing exercise during pregnancy minimize the complication during pregnancy.<sup>[11]</sup>

It is very effective to purify mind and body. Anulom vilom pranayama is one of the excellent breathing exercise which is also know

as Nod Shadhana Regular practice in the morning in the fresh air with empty stomach.<sup>[10]</sup>



**Steps for Anulom Vilom Pranayama:** It is very simple asana every one can do this of any age. Sit comfortably on flat ground those who can't sit, can sit on chair because this is relation to the breath. Now, class right nostrils with right the from lets nostril. Then class left nostril with middle and ring finger and breath out from right nostrils. Now breathe in deeply with right nostril and then class right nostril and breathe out deeply with left nostril. Do the repetition. Do this for 5-10 minutes. Keep in mind your breathing should be up to the lungs and not in the stomach.

#### Benefits of pranayama anulom vilom

1. It improve blood Circulation.
2. It calm your mind.
3. Keep away the heart related problems.
4. Provide relaxation to body and mind.
5. Regular practice of anulom vilom breathing exercise cleanses, Strengthens and tones your nervous system.
6. It improve your concentration
7. Excellent for glowing skin.
8. Helps to improve function of your lungs.
9. Helps to prevent diabetes and keeps diabetes under control.
10. Remove blockage of arteries
11. Relive stress depression and hypertension.
12. Cure Asthma, headache, migraine, Neurological problems heart blockage, depression, gastric problems.

**Precaution**

1. Practice under expert guidance pregnant woman should practice Anulom Vilom but over straining should be practice on an empty stomach.
2. It should be done in the morning or evening or both if you don't have in the morning or evening you can do it at your convenience.
3. Make sure that you practices anulom vilom pranayama 4-5 hours after having your food.

**Bhastrika Prayama Exercise during Pregnancy:** Bhastrike pranayama improve your concentration, removes toxin. Cure asthma headache, migraine, neurological problems, depression, gastric problems. Cures heart related problems. Sanskrit word Bhastrika means bellows. This breathing exercise resembles the blowing of bellows. Bhastrika is the excellent breathing exercise which we can practice slowly of fast as per our convenience. A person who is suffering from Heart problem and lung problems should other wise slowly increase the speed of breathing.<sup>[12]</sup>

Bhastrika Pranayama should practice normally 3-5 minutes twice a day in the fresh air. In this pranayama body gets the maximum amount of oxygen due to complete inhaling and exhaling breathing.

**Steps for Bhastrika Pranayama**

1. Sit comfortably on flat ground. Those who can't sit on ground can sit on chair because this pranayama is related to the breath.

**References**

1. Osho, (1997). *Patanjali Yog Sutra*, 488: (251-500).
2. Iyengar, B.K.S. (1976). *Light on Yoga*. 2nd ed. New York: Schocken Books.
3. Fu, Q., Levine, B.D. (2009). Autonomic circulatory control during pregnancy in humans. *Seminars in Reproductive Medicine*, 27: 330–337.

2. Take a deep breath through both nostrils and fill the lungs with air and then exhale with hissing sound.
3. Inhale deeply and exhale completely.
4. Do this for 2 min to 5 minutes max and see the result in a few days.

**Benefits of Bhastrika Pranayama**

1. It improves blood circulation.
2. Keep away the heart related problems.
3. Provide relaxation to body and mind.
4. Improves your concentration.
5. Helps to stronger the lungs.
6. Relive stress depression and hypertension.
7. Cures obesity and arthritis.
8. Clams the mind.
9. Cures the mind.
10. Increases throat infection
11. Cure asthma, headache, migranine, neurological problems, depression, and gastric problems.

**Precaution:** We can do this pranayama by slowly, medium and fast way. Those suffering from lungs and heart problems and high blood pressure can perform slowly. Practice under expert guidance.

**Yoga Poses to Avoid during Pregnancy**<sup>[13]</sup>

- Naukasana (Boat Pose)
- Chakrasana (Wheel pose)
- Ardha Mastyemdrasana (Sitting Half Sprinal Twist)
- Bhujangasana (Cobra pose)
- Viparital Shalabhasana (Superman Pose)
- Viparital Shalabhasana (Super Pose)
- Halasana (Plow Pose)

**Conclusions:** The finding suggestion that yoga is well indicated for pregnant woman and leads to improvement on a variety of various such as type of birth outcomes. This budding body of work suggests that improvements were observed on psychological domains during pregnancy and labour (eg., quality of life and self-efficacy) on physical and pain measures during labour (eg., discomfort and pain) Pranayana is the best pregnancy exercise during pregnancy time. This only advises outcome pranayma yoga practice to easily to normal delivery.

4. Monga, M. (1999). Maternal cardiovascular and renal adaptation to pregnancy. In: Creasy, Resnik (Eds.), *Maternal Fetal Medicine*, 4<sup>th</sup> ed. W.B. Saunders Company, Philadelphia, pp. 783–792
5. deWeerth, C., Buitelaar, J.K. (2005). Physiological stress reactivity in human pregnancy—a review. *Neuroscience and Biobehavioral Review*, 29: 295–312.

6. Glynn, L.M. (2010a). Implications of maternal programming for fetal neurodevelopment. In: Zimmerman, A.W., Connors, S.L. (Eds.), *Maternal Influences on Fetal Neurodevelopment*. Springer Science, New York, pp. 33–53.
7. Kirkwood, G., Rampes, H., Tuffrey, V., Richardson, J., Pilkington, K., Ramaratnam, S. (2005). Yoga for anxiety: A systematic review of the research evidence. *Br J Sports Med.*, 39:884–91.
8. <https://www.yogajournal.com/poses/bound-angle-pose>
9. <http://www.sarvyoga.com/trikonasana-triangle-pose-steps-and-benefits/>
10. Himani, N.T., Kulkani, N.B., Kowale, A. and Salvi, S. (2011). Effect of Pranayama on stress and cardiovascular autonomic function. *Indian J Physiol Pharmacol.*, 55(4): 370-377.
11. <http://www.yogawiz.com/pranayama/anulom-vilom.html>
12. <http://www.sarvyoga.com/bhastrika-pranayama-breath-of-fire-steps-and-benefits/>
13. <https://india.curejoy.com/content/yoga-poses-to-avoid-during-pregnancy/>