



REVIEW ARTICLE

YOGA IN PREGNANCY: A BOON TO MOTHERHOOD

JYOTSNA THAKUR¹ EENA SHARMA² SAMEET MASAND³

ABSTRACT

Yoga in pregnancy is multi dimensional physical, mental, emotional and intellectual preparation to answer the challenges faced by a pregnant woman. The challenges of pregnancy are revealed by the state of happiness and stress while *yoga* is a skill to calm down the mind. Pregnancy in a woman is a condition in which woman changes both from inside as well as outside. These changes create obstacles or hurdles in the normal life of a pregnant woman and *yoga* in pregnancy can help the women to cruise through these changes and challenges. Practicing *yoga* during pregnancy provides a great range of activity and benefits to unborn child and mother by numerous ways. *Yoga* soothes the mind, refocus the energy and prepare the woman physiologically and psychologically for labour. Different breathing techniques impart invaluable neuro-muscular control and helps in coordinated relaxation and contraction of uterus. Different type of *asanas* (postures), are described in *Ayurveda* and *Yoga darshan* texts which can be performed by a pregnant woman as they consume low energy and provide greater benefits. Published articles and different studies with references have been considered to support the effect of *yoga* in pregnancy. *Yoga* practicing includes physical postures and breathing techniques which minimizes the complication of pregnancy, like pregnancy induced hypertension, intrauterine growth retardation and pre-term delivery etc. Western exercises bring about what is known as phase contraction of muscles while yogic exercises create a static contraction which maintains a muscle under tension without causing repeated motions^[1]. An approach to *yoga* in pregnancy can improve birth weight; decrease pre-term labour, decreased IUGR with least or no complications.

KEY WORDS – Pregnancy, Yoga, Asanas, Pranayama, Birth weight, stress

¹PG scholar, ² Professor and H.O.D, Department of Prasuti Tantra and Stri Roga, ³ PG Schoar, Department of Ras Shastra and Bhaishaya kalpana, R.G.G.P.G. Ayurvedic College and Hospital Paprola, Kangra H.P.India

Corresponding author email: thakuriyotsna16@gmail.com

Access this article online: www.jahm.in

Published by Atreya Ayurveda Publications under the license CC-by-NC

INTRODUCTION—*Yoga* is an ancient discipline designed to bring balance and health to the physical, mental, emotional and spiritual dimensions of the individual [2]. On the counter part pregnancy is an integral part of life of a woman which changes her physically, mentally, emotionally and spiritually for rest of her life. To balance all these dimensions yoga can be postulated as requisite for normal and complication free pregnancy. Pregnancy in a woman is a condition in which woman changes both from inside as well as outside. Fear and apprehension often cloud the mind, the moment pregnancy is confirmed. Child birth is surely the greatest act performed by the woman. It can be great emotional experience. The physical and psychological aspects cannot be separated. For most of women, labour is a time of apprehension of fear and agony. These changes create obstacles or hurdles in the normal life of a pregnant woman and yoga in pregnancy can help the woman to cruise through these changes and challenges [3]. The American College of Obstetricians and Gynecology (ACGO) recommends that women with low risk pregnancy participate in moderate intensity physical activity for 30 min. or more each day on most, if not all, days of the week [4]. But there is lack of attention towards antenatal physical and mental stress of women in India due to late antenatal check-up and myths related to physical activity of a

pregnant woman. Currently only 15.1% of pregnant women exercise or practice yoga at the recommended level [5] which is significantly lower than the general population of 45% in U.S [6] in respect to the above mentioned data the percentage rate of recommended physical activity and *yoga* is considered to be low in India.

Benefit of practicing *yoga* during pregnancy.

Yoga provides a great range of activity to unborn child and mother by numerous ways. *Yoga* soothes the mind, refocus the energy and prepare the woman psychologically for labour. Various *asanas* create more space in pelvis which eases the expulsion of fetus. Number of poses can assist or speed up the process of labour by relieving tension around cervix and birth canal [7], and recovery after the delivery as well. Different breathing techniques impart invaluable coordinated relaxation and contraction of uterus. Proper antenatal preparation by *yoga* and *dhyana* (meditation) can help the majority of women to have a labour that is easy and safe so that she can enjoy the labour and experience a sense of fulfillment. As *yoga* is the cultural part of our life and it should be indulge in the pregnancy routine.

METHODS OF DATA COLLECTION, SELECTION

AND EFFECT ON ASANS —*Yogasana* is to assume a certain bodily position in order to encourage various vital organs and endocrine

glands to function more efficiently leading in turn to overall development of body and mind and to maintain physical strength. It has capacity to produce higher quality of conception, healthy maternal environment for pregnancy and more harmonious birthing experience [8]. Different type of *asanas*(postures), are described in *Ayurveda* and *Yoga darshan* text which can be performed by a pregnant woman as they consume low energy and provide greater benefits. The benefits of these *asanas* are well

established by their use in OPD patient regimen.

Regimen for *Yogasanas* is divided in three categories according to trimesters.

First trimester *asanas* - Practice basic poses with a few modifications. Avoid inversions, closed twists and back bends that might compress the uterus or over stretch it which causes low blood circulation to uterus. Encourage a long relaxation phase after exercise [9].

Table No. 1^[9]: First trimester *asanas*

Sr. No.	<i>Asanas</i> (Postures)	
1.	<i>Utthitatrikasan</i> (Extended triangle pose)	It strengthens the pelvic floor muscles, thighs and calf muscles. Increases the flexibility of spine and improves digestion [9].
2.	<i>Virbhadrasan</i> (Warrior pose)	It stretches the groin area, strengthens the body and back muscles and tones up the lower body. Increases stamina and flexibility and relieves backache [9].
3.	<i>Vrikshasan</i> (Tree pose)	It stretches the legs, back and arms which invigorates the body. It helps to improve concentration [9].

Second trimester *asanas* - Avoid lying on back because it reduces blood circulation to uterus and poses that stretch the muscles too much. In second trimester the centre of gravity starts shifting to right, so all standing poses with

your heel against the wall for support should be done. While twisting, move shoulders and back rather than waist, to avoid the unnecessary pressure on abdomen.

Table No. 2^[10]: Second trimester *asanas*

Sr. No.	<i>Asanas</i> (Postures)	
1.	<i>Vajrasan</i>	This <i>asana</i> enhances digestive system which increases the

	(Thunderbolt pose)	energy uptake. Alters blood flow and nervous system impulses in the pelvic region. Relieves stomach ailments like hyperacidity and it is the only <i>asana</i> that can be practiced after taking meals [10].
2.	<i>Matsyakridasan</i> (Flapping fish pose)	Stimulates digestion and relieves constipation. It relaxes the nerves of legs and this is an ideal <i>asana</i> for relaxed sleep. It improves blood circulation [10].
3.	<i>Marjariasan</i> (Cat stretch pose)	Is very helpful in toning the female reproductive system and muscles of pelvis. This <i>asana</i> increases the flexibility of neck, spine and shoulders muscles which are essential for bearing down efforts during labour [10].
4.	<i>Tadasan</i> (Mountain pose)	Stretches the entire spine and helps to clear the congestion of spinal nerves. It also helps in developing physical and mental balance. It stretches and strengthens the rectus-abdominus muscle which an accessory muscle for bearing down [10].
5.	<i>Bhadrasan</i> (Gracious pose)	This <i>asana</i> benefits the digestive system and helps in relieving various stomach ailments. It helps in toning the muscles of female pelvic region. Along with meditation, it relieves mental stress [10].
6.	<i>Kati chakras an</i> (waist rotating pose)	Tones up the muscles of waist, back and hips. It induces the feeling of lightness and relieves physical and mental stress [10].

Third trimester *asanas* - Practice only those abdomen wall. Supine poses should be *asanas* which do not exert pressure on avoided.

Table No. 3^[10]: Third trimester *asanas*

Sr. No.	Asanas (Postures)	
1.	<i>Ardhatitaliasan</i> (Half butterfly)	Is an excellent <i>asana</i> for loosening of hip joints, which enables fast and easy delivery [10].
2.	<i>Pornatitaliasan</i> (Full butterfly)	Tones up pelvic girdle. It is relieves the tension from inner thigh muscles and removes the tiredness of legs. This <i>asana</i> increases

		the stretching ability of perineum ^[10] .
3.	<i>Chakkichalanasan</i> (Churning mill pose)	Is an excellent <i>asana</i> for toning the nerves and muscles of pelvis and abdomen and prepare them for delivery.
4.	<i>Utthanasan</i> (Squat and Rise pose)	This <i>asana</i> strengthens the muscles of back, uterus, thighs and ankles. It tones up the pelvic girdle and this asana is equivalent to sweeping floor. Thus enables fast and easy delivery.

The practice of *yogasanas* essentially tends to exercise and relax almost all muscles of the body to prepare it for a prolonged steady, stable and co-ordinate activity without producing fatigue ^[8].

Pranayam (Breathing Technique) – *Pranayam* is not only helpful in pregnancy but is a gift given by *Ayurveda* to human race for long life.

Pranayam is practice of complete, prolonged

and slow breathing. It works on both mind and soul. *Pranayam* provides extra oxygen to every cell which energizes and rejuvenates them. It should be practiced every day. It tones up the nervous system, improves emotional stability and helps to eliminate anxiety, fears and phobia. It improves breathing capacity and also increases stamina and vitality.

Table No. 4

Sr. no.	<i>Pranayam</i>	Benefits
1.	<i>Anulom Vilom Pranayam</i>	<ul style="list-style-type: none"> • It strengthens the body mentally as well as physically. • During labour, holding of breath for maximum duration can provide great help for pushing during labour. • It provides more oxygen to the body so more oxygen is transferred to the fetus.
2.	<i>Bhramaripranayam</i>	<ul style="list-style-type: none"> • It is the effective breathing exercise to release agitation, anger and calms the mind. • It is very useful for pregnant women because it eases the process of childbirth by controlling the breathing during the process of labour.

		<ul style="list-style-type: none"> It improves concentration and removes toxin from body ^[11].
--	--	--

Dhyana (Meditation) - *Dhyana* is an integral part of yoga. It is a practice in which an individual trains the mind which includes techniques designed to promote relaxation and build internal energy. Its goal is to increase focus and calms the mind, eventually reaching a higher level of awareness. It helps us to achieve harmonious balance between body and mind. To practice *dhyana* one should

sit with straight and erect spine and focus on to something e.g. *OM* (the famous mantra). During initial stages *dhyana* should be practiced for about 8 to 10 minutes, after that it can be extended as per capacity. Meditation should be avoided after a heavy meal.

Yoga mudras are hand positions that help to stimulate different energies in the body.

Mudra’s for Pregnancy

Table No. 5^[12]: Mudra’s for Pregnancy

Sr. No.	Yog Mudra	
1.	<i>Apana Mudra</i>	Beneficial during labour to help facilitate contractions. Also helps to cope up with pain
2.	<i>Gyan Mudra</i>	It represents purification of mind.
3	<i>Aakash Mudra</i>	It can be used when setting intentions for pregnancy to stay positive and healthy.
4.	<i>Pushan Mudra</i>	It is very effective <i>mudra</i> for nausea, flatulence and feeling of fullness during pregnancy.

Yoga Bandha are integral part of yogic practice, these are static postures which constrict certain part of body thereby redirecting the flow of blood to other parts of the body. Recommended *Bandh* for pregnancy is *MulaBandh* (The Root Lock) which is beneficial when practiced regularly before and after conceiving, it helps to prepare the

muscles for easy delivery. It is also good for postpartum period ^[13].

Precautions should be taken while practicing yoga is also important. During second and third trimester time spent for practicing the *asanas* should be reduced to prevent fatigue and overwork. Focus more on breathing and meditation. It is also not advised to practice

more from the tenth through the fourteenth week of pregnancy since these are crucial time. Do not over stretch the abdomen, avoid doing inversion and emphasize over twisting of shoulder and upper back ^[7].

DISCUSSION – *Yoga* practices includes physical postures breathing techniques which minimizes the complication of pregnancy, like pregnancy induced hypertension, intrauterine growth retardation and pre-term delivery. Practicing *yoga* is helpful in increasing the birth weight of babies. According to a study the birth weight in women practicing *yoga* group (2.78 +/- 0.52 kg) is significantly higher (p<0.018) than control group (2.55 +/- 0.52kg) ^[14]. Another study reveals that the babies with birth weight greater than or equal to 2500g was significantly higher (p<0.01) in the *yoga* group. Rate of preterm labour is lower (p<0.0006) in the *yoga* practicing group. Complications such as isolated intrauterine growth retardation (IUGR p<0.025) and pregnancy induced hypertension (PIH) with associated IUGR (p<0.025) were also significantly lower in the group of patient practicing *yoga* and there is no significant adverse effect is noted ^[15]. *Pranayam* (Breathing exercise) and *Dhyana* (Meditation) relaxes the mind refocuses the energy and relieve stress from impatient and tensed pregnant woman. A study reveals that a single and multi sessions of antenatal *yoga* on

measures of moods suggest that antenatal *yoga* lowered state of anxiety and cortisol levels after a single session and this effect was consistent over time. Antenatal *yoga* was associated with significant reduction in fear of childbirth and is potentially preventive against increases in depression symptoms ^[16]. *Yoga* is the practice which includes different *asanas*, *pranayama* (Breathing exercise) and *dhyana* (Meditation) and their beneficial effects are mentioned here below.

Asanas (Postures)

1. It strengthens the pelvic floor muscles and reduces muscle cramps during third trimester.
2. Increases the flexibility of spine.
3. Tones up the lower body.
4. Increases stamina and relives backache.
5. Improves digestion and relives constipation.
6. Improves blood circulation and induce relax sleep.
7. Strengthens the bearing down muscles and helps in the expulsion of fetus.
8. Relives physical and mental stress.

Pranayam (Breathing exercise)

1. Provides extra oxygen to every cell and rejuvenates them.
2. Tones up nervous system and improves emotional stability.
3. Relives morning sickness and mood swings.

4. Eliminate anxiety, fear and phobia.
5. Increases breathing capacity, stamina and vitality which help in bearing down during the process of labour.

Yog mudras

1. Facilitate contractions.
2. Effective in reliving nausea, flatulence and feeling of fullness during pregnancy
3. Control intentions for pregnancy to stay positive and healthy.

CONCLUSION

On the basis of above mention studies an approach to *yoga* in pregnancy can improve birth weight, decrease pre-term labour, decreased intra uterine growth retardation (IUGR) with least or no complications. Practicing *yoga* reduces the mental stress; manage pain and symptoms of depression. So, *Yoga* must be included in the pregnancy regime to attain the higher level of fitness for both mother and child.

REFERENCES

1. Jean and Helen Parker, *Yoga for health and happiness*, Yoga Time First edition, Clarion books in association with Piper books Pg. no.22.
2. Alyson Ross and Sue Thomas. The health benefits of yoga and exercise. A review of comparison studies. The journal of Alternative and complementary medicine vol. 16, number 1, 2010. Pg. 3-12
3. The OM Guide to pregnancy: <http://www.ommagazine.com/specialreportpdf>.
4. ACOG committee opinion: exercise during pregnancy and the post partum period. Number

- 267, January 2002. American college of Obstetrician and Gynecologist Int. J Gynecology and Obstetricians 2002; 77: 79-81
5. Even KR, Savitz DA, Huston SL. Leisure-time physical activity among pregnant women in the US. Paediatr perinat epidemiol. 2004; 18:400-407
6. Macera CA, Ham SA, Y ore MM, et al. prevalence of physical activity among pregnant women in the US. Behavioral risk factor surveillance system, 2001 Prev Chronic Dis. 2005;2:A17
7. Yoga and Pregnancy www.artofliving.org/yogaandpregnancy
8. Ravi R Javalgekar *Yoga and Ayurveda* Third edition Chaukhambha Publications chapter Art and Ethics of yoga 2004; Pg. no. 43
9. Brenda Plakans Tools for Teaching Prenatal Yoga: The First Trimester March 11 2008 <http://www.yogajournal.com/article/teach-for-teaching-prenatal-yoga> .
10. Health and yoga info <http://www.healthandyoga.com/html/pfirst.aspx> .
11. Garbhakranti Pranayam in Pregancy <http://mydreambaby.in> .
12. Yoga mudras for Fertility and Pregnancy. <http://www.cynhealingarts.com/2010/yoga-mudras-for-fertility-and-pregnancy>
13. Yoga yukta Mula Bandh (The Root Lock) Practice benefits and contraindications. <http://yogayukta.com/876/mula-bandh> .
14. Narendran S, Nagarathna R, Gunasheela S, Nagendra HR. Efficacy of yoga in pregnant women with abnormal Doppler study of umbilical and uterine arteries. J Indian Med Association 2005 jan; 103(1): 12-4, 16-7.
15. Narendran S, Nagarathna R, Gunasheela S, Nagendra HR. Efficacy of yoga on pregnancy outcome. J Alternate complement Med. 2005 Apr; 11(2) ; 237-44

16. James J. Newham, AnjaWittkowski, Janine Hurley, John D Aplin, Mellisa Westwood. Effects of Antenatal Yoga on maternal anxiety and depression: A randomized controlled trial. *Depression and anxiety* 2014; 31:631-640

Cite this article as: Jyotsna Thakur, Eena Sharma, Sameet Masand. Yoga in pregnancy: A boon to motherhood, *J of Ayurveda and Hol Med (JAHM)*.2015;3(6):121-129

Source of support: Nil, Conflict of interest: None Declared