

Yoga Mind While Expecting: The Psychological Benefits of Prenatal Yoga Practice

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Abstract: Yoga is an effective complementary approach to both maintain and improve overall health. Yoga practice supports many dimensions of psychological well-being, including everyday stress, anxiety, depression, and coping with health challenges. With its combination of mental skills training and gentle physical exercise, yoga can be extremely effective in supporting physical and psychological health during pregnancy. Yoga has the potential to be even more effective when consciously and systematically integrated into an individual's overall self-care and medical care program, through deliberate and open dialogue among patients, healthcare professionals, and yoga professionals. The purpose of this article is to (1) briefly review the psychological benefits of yoga practice during pregnancy; (2) outline basic guidelines for childbirth educators interested in collaborating with qualified yoga instructors; and (3) provide instructional guidelines for childbirth educators interested in integrating yoga into prenatal education classes, including key poses and contraindications.

Keywords: yoga, pregnancy, childbirth, psychological health, stress

Yoga is a broad approach that includes physical exercise, relaxation, breathing, and meditation practices. Yoga practitioners often report the use of yoga techniques for health promotion; 63.7% of yoga practitioners reported implementing yoga techniques for wellness and preventative benefits, and 47.9% reported implementing yoga techniques for the management of specific health conditions (Saper, Eisenberg, Davis, Culpeper, & Philips, 2004). However, only 53% of yoga practitioners report their use to their medical practitioner (Cheung, Wyman, & Halcon, 2007). There can be contraindications and risks for yoga practice, especially during pregnancy. Therefore, it is important for medical and mental health professionals to be familiar with the benefits and risks of yoga practice and to discuss appropriate use of yoga during pregnancy. Yoga practice provides a gentle form of exercise and a non-pharmaceutical approach for managing the psychological distress that may accompany pregnancy and postnatal recovery.

The Psychological Benefits of Yoga for Pregnancy

A small body of research indicates that yoga practice is effective in improving quality of life in pregnant women. Rakhshani, Maharana, Raghuram, Nagendra, and Venkatram (2010) assigned 102 pregnant women to a yoga training group and a control group. Over 16 weeks, the yoga participants improved quality of life and interpersonal relationships (Rakhshani et al., 2010). Research has demonstrated the beneficial effects of yoga on stress and anxiety in pregnant women (Beddoe, Paul Yang, Kennedy, Weiss, & Lee, 2009; Satyapriya, Nagendra, Nagarathna, & Padmalatha, 2009). Yoga breathing strategies can be particularly helpful as a stress-management strategy during labor and delivery, and regular yoga training throughout pregnancy can support a laboring woman in more effectively using the breathing strat-

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egies during labor. Beddoe et al. (2009) have reported the effects of yoga on pain reduction during the second trimester in particular. A controlled research study with Thai women found that yoga practice during pregnancy increased levels of maternal comfort during labor and post-labor, reduced the experience of labor pain, and led to shorter duration of total labor time (Chuntharapat, Petpichetchian, & Hatthakit, 2008). Overall, the laboring mother may find that yoga exercises and breathing techniques can help to reduce the experience of pain during labor. Likewise, new mothers may use breathing to manage pain during postpartum recovery and discomfort during early breastfeeding, before mother and baby have achieved comfortable latch.

Two additional areas of psychological health where yoga may offer benefits during pregnancy are in the prevention and management of sleep conditions, such as insomnia and depression. A substantial body of research supports the use of yoga as a non-pharmaceutical approach to insomnia (Brown & Gerbarg, 2005; Harrison, Manocha, & Rubia, 2004; Khalsa, 2004; Manjunath & Telles, 2005; Sahajpal & Ralte, 2000) and depression (Bennett, Weintraub, & Khalsa, 2008; Broota & Dhir, 1990; Lavey et al., 2005; Ray et al., 2001). Yoga offers the potential for an effective and non-pharmaceutical approach to prenatal sleep conditions and postpartum depression; however, research is needed to determine whether the effects of yoga on depression are beneficial for these conditions during pregnancy.

yoga practice is effective in improving quality of life in pregnant women

The Mechanisms of Yoga's Impact on Psychological Health

Though many in the West are only familiar with asana (the physical postures of yoga), many of the yoga interventions used in research studies also include breathing exercises, concentration and awareness meditation, and discussions about everyday living. While the physical practices of yoga can be very helpful, it is specifically the nonphysical components of yoga that yield the unique benefits of yoga above and beyond other forms of physical exercise (Bonura & Tenenbaum, 2014). Traditional yoga philosophy points to key

mechanisms for yoga's mental health benefits. Key is mindfulness, the practice of complete present-moment awareness (Lasater, 2000). During yoga practice, one is encouraged to focus on breath, sensation, and mindful movement, rather than allowing the mind to wander. Inherent in present-moment awareness is nonjudgmental acceptance of things as they are, rather than craving for change in the future. For the expectant mother facing extensive changes to her body and her life, mindfulness and acceptance provide profound support for psychological wellbeing (Devananada Swami Vishnu, 1983).

Guidelines for Yoga Practice during Pregnancy

Evidence-based practice recommendations for yoga in pregnancy are limited by the small body of research on yoga within this population. The following guidelines are based on the scientific literature, professional experience teaching prenatal and postnatal yoga, and personal experiences practicing yoga through three pregnancies, including one pregnancy loss and two live births.

Childbirth educators who would like to collaborate with a yoga instructor should look for a Registered Yoga Teacher (RYT) with The Yoga Alliance (YA) (<http://www.yogaalliance.org>). YA is the governing body for yoga instructors, and registry indicates at least a minimum level of training and instructional experience. YA also offers a Registered Prenatal Yoga Teacher mark (RPTY) for instructors who have demonstrated substantial backgrounds in prenatal yoga instruction and/or completion of a specialized program in prenatal yoga teacher training. Any yoga instructor offering prenatal yoga instruction should have first aid and CPR certification and be able to provide demonstrated experience in working with pregnant women.

Childbirth educators may also wish to integrate yoga into prenatal training programs. Yoga practice can be a good adjunct to birthing education, providing an opportunity for gentle physical exercise, mental focus training, and breathing exercises, which can be helpful during labor and delivery. Beyer-Nelson's (2001) review provides good foundational understanding of both the benefits and challenges of integrating yoga into childbirth education. However, Beyer-Nelson's assertion that yoga practice not begin during the first trimester seems rooted in liability concerns for hospitals rather than contemporary exercise guidelines. Hospitals may prefer this precaution to avoid liability in the event of first-trimester miscarriage; however, personal conversations

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with multiple obstetricians lead me to believe that gentle practices such as yoga or massage will not lead to miscarriage in a healthy pregnancy. American Congress of Obstetricians and Gynecologists' (ACOG) (2014) current recommendations, include pregnant women aiming for 30 minutes per day of moderate exercise – there are cautions such as no supine positions after the first trimester and a caution for motionless standing. Practitioners should use caution during the first trimester, and instructors should discuss both the higher risk of miscarriage in the first trimester and the lack of solid empirical research on preventative and causative factors of miscarriage so that students are well informed. Students should also discuss their intention to begin yoga with their obstetrician and receive medical clearance for exercise, based on their personal condition. A variety of other prenatal yoga texts offer a foundation for understanding the fundamentals of yoga practice during pregnancy. Artal, Clapp, and Vigil (n.d.) wrote the American College of Sports Medicine's official statement on exercise during pregnancy, which provides additional supportive guidelines for exercise programs for pregnant women.

When setting up a yoga class within a prenatal education program, consideration should be given to the following with regard to class environment, class format, and delivery.

Class Environment:

- Avoid incense or candles out of consideration for students who may be experiencing morning sickness, nausea, and increased sensitivity to smells.
- Provide chairs to support students who are not comfortable or able to sit on the floor or complete standing poses without support for their balance. Chairs are particularly helpful for those in their third trimester.
- Allow students to leave on shoes and socks if they prefer, out of consideration for foot conditions, balance conditions, and physical/psychological discomfort with being barefoot. Due to increased weight and the loosening of ligaments, hips may feel more unstable, and balance may be shaky. Some women will feel more balanced while barefoot; others will prefer shoes. Allow for personal preference.
- Allow time for student interaction before, after, and during class (if appropriate) to support students who come to class for social interaction.

- Determine the student/class level of comfort with Sanskrit or Eastern influences, and adapt the yoga class format and language as appropriate.






Class Format and Delivery:

- Ensure that class environment and word choice while teaching are positive and encouraging, focusing on what students can do rather than any limitations they may have. For example, start with the simplest version of a pose and suggest that students can work up to more complicated options, rather than starting with the complicated version and offering modifications. Always think about how to make the class and each practice accessible to everyone.
- Avoid physical adjustments to students' postures, and instead focus on verbal correction.
- Move away from the idea of the "perfect" yoga posture and instead focus on safe postures and overall health outcomes.
- Provide students encouragement to take breaks where needed, even during a pose, to support their energy to complete the entire class.
- Use the experience of the class itself to ground philosophical teachings – providing opportunities to learn how to breathe through discomfort, focus on one's breathing, and practice mindful awareness.
- Mirror students' movements when teaching and providing instructions (face the students and perform actions with the left side while telling them to do their right side, so that a mirror image of the students is provided). This will reduce student confusion about instructions.

In general, a gentle yoga practice can be effective during pregnancy, and many of the components of hatha yoga provide similar benefit to the pregnant woman. A well-rounded prenatal yoga program should include several core components, including meditation training, breathing practice, standing poses, and squats. Meditation practice supports internal focus, increased self-control, and mindful acceptance. Learning to focus on the breath may provide a simple exercise that supports learning to cultivate attention focus. Breathing practice increases lung capacity and oxygenation, which supports increased energy and alertness. Learning to take deep breaths by relaxing the abdominal muscles provides a strategy for stress management, especially in contrast to the shallow breathing that may occur under stress. Breathing exercises also provide a key opportunity to

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Table 1. Sample Yoga Sequence for Yoga Class or At-home Practice (Bonura, 2012)

Asana (Yoga Pose)	Purpose	Description	Illustrative Figure
Seated Meditation	Centering and quieting the mind, increasing self-control over thoughts and breathing.	Breathing and meditation. Count the breaths or focus on a chosen mantra while slowing breathing in and out, 2–5 minutes. Hands on belly with focus on connection between mother and child.	
Seated Forward Bend	Forward bends support internal focus and quiet reflection. Forward bends provide calming energy when over-stimulated by external forces. Legs wide open helps to stretch the hips and pelvic region in preparation for labor.	Spread legs wide, fold gently forward from waist, resting hands on floor in front of you, 5–10 deep breathes, quieting of mind takes energy within.	
Chair Squat	Squat improves thigh, buttock, and groin strength, thus promoting greater pelvic floor control and bladder control. Good laboring pose.	Feet are wider than hip width, knees are bent, tailbone tucked under, abdomen pulled back toward the spine. Gaze and chest lift upward. If steady, extend one or both arms up toward the sky. Hold for 5 deep breaths. Stand near chair or wall for balance support (particularly during third trimester).	
Tree	Balance poses challenge the physical capabilities and increase stability. In addition, because of the inherent challenges in balance poses, they teach patience and self-acceptance during the process of attempting any new task.	Stand on right foot. Left foot comes to ankle, calf, or upper thigh with knee turned outward. Hands may come to center and then extend upward. Hold 5–10 deep breaths, gaze focused at one point. Repeat both sides. Use a chair or stand near a wall to support balance, as needed (particularly during third trimester).	
Cat / Cow	Gentle backbend to strengthen the back muscles and counteract the normal contraction that occurs due to daily stress and tension. Great laboring position as well.	On hands and knees, knees directly above hips, hands directly under shoulders. Inhale, lift the chest and chin, lift the tailbone, arch the spine. Breathe gently, 10–15 seconds.	

Note. All photos reflect practice in third trimester (35 weeks) and can be easily adapted to first and second trimester practitioners.

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learn focus and control strategies that will be helpful during delivery. However, all breathing exercises should be carefully considered, and exercises which involve rapid breathing or holding the breath should be avoided. Standing poses (supported by a chair, if needed) increase leg and torso strength, key to supporting back health as weight gain increases throughout pregnancy. Squats (supported by a chair, if needed) support pelvic, thigh, and buttock strength. When complemented with Kegel exercises, these can reduce the likelihood of urinary incontinence and thus improve daily quality of life during pregnancy and support improved pelvic floor rehabilitation after delivery.

The level of challenge in all poses will vary by individual. Experienced yoga practitioners may continue a more active yoga practice throughout their pregnancy, while new yoga practitioners should focus on gentle hatha-based yoga to avoid risk of injury. For safety, it is important to consider contraindications to yoga practice during pregnancy.

Follow the Following Safety Guidelines:

- Hot yoga practices (in a heated room) are contraindicated due to potential risk of overheating and stress on cardiovascular function.
 - According to traditional yoga theory, during the first trimester, even experienced yoga practitioners should avoid inversions (such as headstand or shoulder stand) and backbends (even gentle backbends such as fish) as they are believed to increase the risk of miscarriage. In the absence of solid research either supporting or disproving this theory, use caution.
 - Follow standard practice for exercise during pregnancy, such as avoiding any postures involving lying flat on the back in the second and third trimester.
 - Avoid undue strain on the joints caused by jumping into yoga poses or placing excessive pressure on joints through extreme range-of-motion or weight bearing.
 - Ensure adequate support and time for transitions between yoga poses. This is particularly relevant when moving into the second and third trimester. While flexibility increases throughout pregnancy, so too does the risk of injury. Fast movements are inappropriate and may aggravate conditions and lead to injury. Instead, allow adequate time to rest between postures and slow, gently guided movement into the next exercise.
- Pain and strain are not appropriate. When discomfort is experienced, the yoga practitioner should reduce the level of exertion. If discomfort continues, the individual should stop and consult a doctor prior to further yoga practice.
 - Medical practitioners, their patients, and the yoga instructor should engage in a dialogue to determine specific yoga postures that are inappropriate for the patient's personal health profile and pregnancy risk.

Adapted from Bonura (2012), Table 1 offers a simple, 10-minute, gentle yoga routine that pregnant women may use for at-home practice to promote general health and psychological wellbeing. It provides a ready reference for those who are interested in implementing a gentle daily yoga practice in support of yoga classes or training under the guidance of an instructor. Childbirth educators can also use Table 1 as a supportive guide in including yoga poses within childbirth education programs.

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