

Prenatal Yoga



Yoga and Pregnancy

Yoga can be a blessing for a pregnant woman. It can help her prepare for the transitions and changes that happen during pregnancy and during the intensity of labor. Practicing offers the mama-to-be helpful breathing techniques, improved sleep, options for birthing positions, inner and outer strength & endurance, mindfulness, community and a deeper connection to her intuition and baby. Practicing also helps relieve common discomforts related with pregnancy.

During Pregnancy a woman may experience....

Experiences may include swelling, sciatica, hemorrhoids, 50% more blood volume & increased fluids, weight gain, itchy skin, insomnia, indigestion, skin conditions, hair growth, exhaustion, nausea, relaxin in joints can cause carpal tunnel, breathing can be challenged as baby puts pressure on diaphragm, balance challenged, braxton hicks may begin in 20 weeks, hips & pubic bone shift allowing for opening of birth canal, leg cramps, dehydration (backache over kidneys), headaches, deep spiritual connection, increased or decreased sex drive to name a few.

Benefits: Prenatal Anatomy Yoga & Exercise

Exercise & Pregnancy - Benefits

- Greater sense of well-being
 - Reduces stress & anxiety
 - Improves self-image
- Fewer physical complaints – reduces discomfort
- Helps to sleep better
- Increases energy
- Helps fight constipation
- Makes baby healthier
 - Less stressed from labor & delivery
 - Recover from stress of birth faster
- Increase the strength, flexibility and endurance of muscles needed for childbirth
- Strong abdominals help relieve/decrease back pain
- Helps with nausea, carpal tunnel syndrome, headaches and shortness of breath
- Potentially faster and easier delivery
- Could help decrease the risk of preterm labor, pregnancy-induced hypertension and intrauterine growth restriction — a condition that slows a baby's growth
- Speeds recovery after childbirth

- Reduces constipation
- Reduces swelling and bloating
- Improves mood
- Improves posture
- Prenatal yoga can also help you meet and bond with other pregnant women and prepare for the stress of being a new parent.

Study:

Robertshawe, P. (2009). Effects of yoga on maternal comfort, labor pain and birth outcomes. Journal Of The Australian Traditional-Medicine Society, 15(2), 81.

In 2008, 66 pregnant women were randomized into two groups of 33.

The experimental group underwent 6 one-hour classes of prenatal yoga, inclusive of asana, pranayama, and meditation, from gestation to weeks 26 - 37. This group also practiced yoga at home 2 -3x a week, using the techniques learned in class and kept a diary of their practice.

The control group received regular scheduled prenatal care, during which the researchers conversed with them for approximately 20 – 30 mins at each visit.

At birth, the researchers used 4 different measurements of comfort, pain and length of labor.

Results:

- *the yoga group experienced significantly higher maternal comfort during labor and two hours post-labor*
- *although both groups experienced high pain levels, the yoga group experienced significant and consistent lower pain scores than the control group*
- *the first stage of labor was significantly shorter for the women in the yoga group, although second stage labor was comparable for both groups.*

Prenatal Yoga Basics



- Encourage students to let you know if they are experiencing any pain, injuries or special health/pregnancy related conditions.
- Encourage students to listen to their bodies, finding that balance of challenging self physically and moving mindfully without pain.
- Comfort, ease, stability, a sense of grounding, and connectedness are important as students experience their practice through the pregnancy leg of their life's journey.
- Do what you can through language and sequencing to instruct students to find a way other than struggling and straining through a practice.
- Prenatal is often the first introduction a student has in exploring this wonderful world of yoga.

Special Areas of Focus for Prenatal Class

I. Focus on the Breath - Encourage constant ever-flowing breath.

Benefits of Pranayama (babycenter.com)

- Helps optimize the flow of oxygen that is supplied to mom's body and baby
- Helps circulation of blood and oxygen, which are essential for growing body and baby's development
- Relaxes mind and helps reduce stress. Also promotes positive emotional health and self-control (which helps deal with mood swings, anger, and frustration)
- Helps basic functioning of body – allowing body to remove toxins and waste effectively

Controlled breathing can be beneficial during labor and childbirth. E.g. learning how to do ujjayi breathing primes you for labor and childbirth because it trains you to stay calm when you need it most.

You may introduce the following pranayama exercises.

Ujjayi

This form is also known as 'ocean breath' or 'victory breath'. This requires you to take in air slowly through your nose, filling your lungs entirely, and exhaling completely until your abdomen empties out and compresses a bit. As you breathe in and out you will need to create a soft steady 'hissing' sound, your instructor will show you how this should be done.

Nadi shodhana

This is also known as 'sweet breath' technique. 'Nadi' in Sanskrit means 'flow' and '*shodhana*' means 'to cleanse'. It is simple to follow and focuses on breathing through alternate nostrils.

Dirgha pranayama



This is known as 'three part breath' or 'complete breath'. It involves three stages of breathing - high breathing, mid-breathing and low breathing. This forms the very basis of correct and efficient breathing.

Bhramari pranayama

Also known as 'bee breath' technique, this involves breathing in slowly through both nostrils. While exhaling you need to use the throat to make a soft sound - like the buzzing of a bee. This form of pranayama has another variation where you use alternate nostrils for inhaling and exhaling.

Things to avoid in pranayama in pregnancy

- Do not hold the breath
- Do not do kapalabhati, bhastrika, or forceful breathing
- As in asana, anything that is uncomfortable should be avoided

2. **Foundations-** Widen stance with feet hip distance or wider apart to increase balance and stability in standing poses.

3. Vocal Toning - The practice of letting go & releasing

- a. Vocal toning (chanting)
 - Ah (Inhale – Exhale chant Ah; repeat 5x)
 - Oh (Inhale – Exhale chant Oh; repeat 5x)
 - Mm (Inhale – Exhale chant Mm; repeat 5x)
 - OM (Inhale – Exhale chant A-U-M; repeat 5x)
 - Enjoy the vibrating sounds of OM to silence!
- b. Pelvic floor Toning (Mulabhandha cultivation)
- c. Hip opening
- d. Honoring downward flow and balancing energy- opens throat & cervix

4. Core Exercises for Prenatal Yoga Students

- Cat/Cow
- Seated pelvic tilts
- Standing pelvic tilts
- Opposite hand/leg (below)
- Plank to down dog
- Plank with knees lightly to floor and lift
- Forearm plank
- Kegels from squat

Why Core Work?

- Some abdominal muscles (transverse abdominis and pelvic floor) are involved in labor.
 - Can help in delivery
 - Strong, flexible muscles will recover faster after delivery
 - Should be avoided if experiencing diastasis recti
- Esp. incl. twisting, traditional planks, on all 4s, crunches/traditional abdominal work

Guidelines and Things to Consider Along the Yogini Pregnancy Path

1st Trimester

- Be very conservative first trimester
- Practice art of surrender and being instead of doing
- Keep life simple and practice simple
- Restorative practice and stretches are great

2nd Trimester

- Can resume regular yoga practice (adding modifications)

Include:

- Standing Asana like Virabhadrasana II and Utthita Parsvakonasana to strengthen lower body
- Baddha Konasana and Malasana for groin and hip opening
- Forward bend without compressing belly—can separate legs
- Restoratives—Viparita Karani, Supta Baddha Konasana

3rd Trimester

- Modify asanas for beautiful growing belly
- Lower back modifications many be necessary to protect lower back from stress and strain
- Resting postures can be done lying on side
- Balance postures near a wall for support
- Use a chair (if needed) for pelvic support of standing postures

Contraindications: Components & Recommended Poses for Prenatal Gentle Flow Class



Belly Poses - pressure on the uterus and discomfort for mama. Conservative view suggests even if belly is not showing yet!

Back (Savasana) and Right Side Lying Poses after 3-4 months - Both positions may cause pressure on vena cava which is the vein that carries blood from the body back to the heart. Mom may feel nauseous or breathless. Baby may experience reduced blood flow cause it stress. Vena cava is typically towards the right side, as is the uterus! Legs up the wall on bolster so blood flow is directed back to the heart from the tilt the bolster provides vs. into the pelvis.

Deep Backbending - Strains abs which are already stretching! The linea alba (vertebral midline) that softens around the growing belly can weaken and even separate causing diastasis recti and hernias.

Twists - Compress the uterus and may put pressure on the fetus. Open twists typically are good alternatives.

Inversions - Mama's balance can be off during pregnancy. After 36+ weeks - it could potentially shift baby from its gradual descent.

Pranayama - Alternate nostril ok. No nauli, uddiyana bandha, breath retention

Hot Yoga- Not advised. You will keep the room cooler for moms to be! And in this regard, pausing for sips of water during class or even a snack is perfectly acceptable if the mama needs it!

Jumpings - Jarring activities are contraindicated.

Sequencing

In Class Considerations

- Use of Props – generously. Your client's comfort and sense of stability in asanas is important.
- Burning Incense – be sensitive. Your client's senses are heightened. Pregnancy is a time of increased awareness and sensitivity to smells.
- Room Temperature – ask client(s) if room temperature is comfortable. You may find pregnant yogini bodies generate and release a lot of heat. You may need to turn on fans as the temperature rises.
- If a student arrives late, be gracious and make room!

- Additional class considerations: pacing, breath count, assists, chanting, readings and class themes

Examples of what can be included:

Opening: Incorporate moments to create community, introductions, weekly question or theme, shared resources

Meditation & Breath Awareness: Belly breaths, body scan, create single-pointed focus (drishti) on the breathe

Warm-up: Cat-Cow Stretch; Side Plank Variations – Vasisthasana Variations; Salutations: Prenatal Sun Salutation – Step Back Sequence (PreNatal Sun Salutation Sequence from Ann Pizer; Moon Salutation – Full Circular Sequence; Moon Salutation with Hara Emphasis Sequence; Lakshmi Namaskar – Shiva Rea;

Standing: Warrior I – Virabhadrasana I; Warrior II – Virabhadrasana II; Extended Triangle Pose – Utthita Trikonasana; Pyramid Pose;

Balancing: Half Moon Pose – Ardha Chandrasana; Vrksasana – Tree Pose; Tree Pose – Variations; Dancer Pose – Natarajasana;

Seated/Hip Opening: Baddha Konasana; One-Legged King Pigeon Pose – Eka Pada Rajakapotasana; Knee to Ankle Pose – Double Pigeon;

Core/Pelvic Floor Toning: Navasana – Supported Variation (hands & feet to floor, toes lift and lower); Table Pose with arm and opposite leg lift; Pelvic Tilts – preparation for Bridge; Kegel exercises;

Heart Opening: Bridge Pose – Setu Banda Sarvangasana, Bridge Pose – Supported Variation; Camel pose – Supported Variation (lower back);

Inversions: Legs up the Wall – Viparita Karani; Shoulderstand – Variation; Downward Facing Dog; Downward Facing Dog – Variation (Half Wall Pose);

Relaxation: Goddess Pose – Supta Baddha Konasana; Left Side Lying Savasana; Left Side Lying Savasana – Supported Variation;

Closing: Seated Meditation – Supported Variation (blocks and wall).

Helping Prenatal Students Modify Asana in your Open Class - Practice



- Child's pose; postures on hands/knees

- Standing poses

- Balancing poses

- Inversions

- Forward folds
 - Seated

 - Standing

- Backbends
 - On belly

 - On back

 - Standing/kneeling

- Twists

- Final Relaxation

PreNatal Sun Salutation Sequence from Ann Pizer



Source: <http://yoga.about.com/od/yogasequences/ss/prenatalsunsal.htm>

Step 1 - Tadasana to Urdva Hastasana

Start by standing in Tadasana, but taking the feet as wide as the mat.

Inhale - Bring the arms up through the heart center towards the ceiling, coming into Urdhva Hastasana.



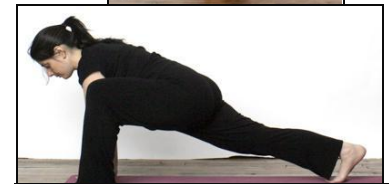
Step 2 – Camper’s Pose

Exhale - Bend the knees coming down to Camper's Pose keeping the feet wide and parallel.



Step 3 - Prenatal Lunge with Left Leg

Inhale - Bring the palms flat inside the feet and step the right leg back to a lunge.



Step 4 - Prenatal Downward Facing Dog

Exhale - Step the left foot back to Downward Facing Dog.



Step 5 - Prenatal Plank

Inhale - Come forward to a Plank position.



Step 6 - Prenatal Chaturanga Dandasana Variation

OPTIONAL

Exhale - Drop the knees to the floor and bend the elbows straight back as in Chaturanga Dandasana.

Inhale - Straighten the arms bringing the torso back up.



Exhale - Come back to Downward Facing Dog.

If this pose is too much, skip it and come straight from Plank back to Down Dog.

Step 7 - Prenatal Downward Facing Dog

Exhale - Push back to Downward Facing Dog



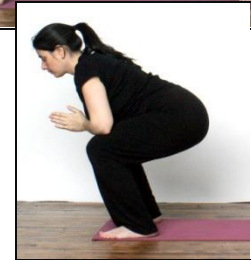
Step 8 - Prenatal Lunge with Right Leg

Inhale - Bring the right foot forward to the outside of the right foot coming into a Lunge.



Step 9 - Camper's Pose

Exhale - Step the left foot to the outside for the left hand coming into Camper's Pose.



Step 10 - Prenatal Urdva Hastasana

Inhale - Straighten the legs bringing the hands up through the heart center towards the ceiling coming into Urdhva Hastasana.



Repeat sequence on the left side

Additional Info & Resources

American Congress of Obstetricians and Gynecologists Guidelines for Exercise during Pregnancy & Postpartum

- After 1st trimester, avoid exercise in supine position (on back)
- Start slowly (e.g. 5 minutes) if you haven't exercised in a while
- Exercise regularly (at least 3x/week)
- Avoid outdoor exercise in hot or humid weather
- Avoid exercise if you have a fever
- Wear comfortable clothing that will keep you cool
- Wear a supportive bra
- Drink plenty of water to avoid dehydration and overheating
- Make sure to consume the added 300 calories per day
- Protect your joints
- Stop if something feels funny

Additional Guidelines from ACOG

- Maternal HR should not exceed 140 bpm
- No strenuous exercise longer than 15 minutes
- Maternal core temperature should not exceed 100.4°
- Monitor Intensity using RPE (next slide) because HR is variable, due to physiological influences of pregnancy.

Borg RPE Scale (Rating of Perceived Exertion)

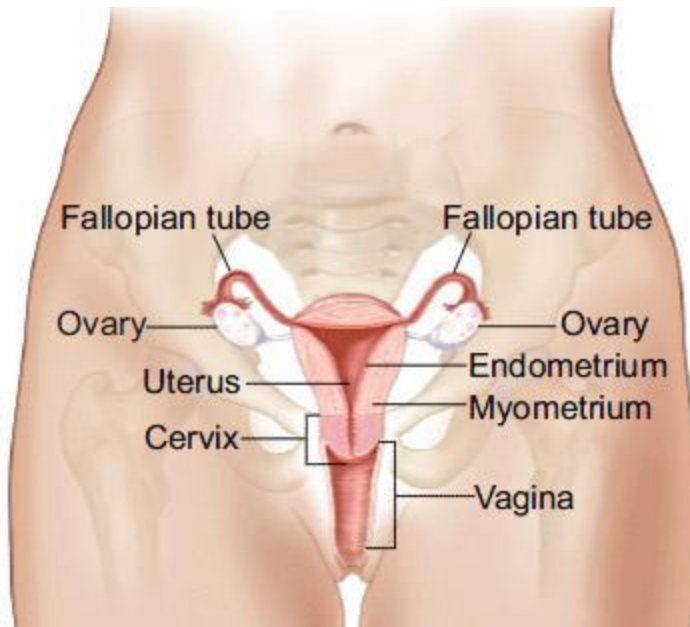


Rating	Description
6	No exertion at all
7	Extremely light
8	
9	Very light
10	
11	Light
12	
13	Somewhat hard
14	
15	Hard (heavy)
16	
17	Very hard
18	
19	Extremely hard
20	Maximal exertion

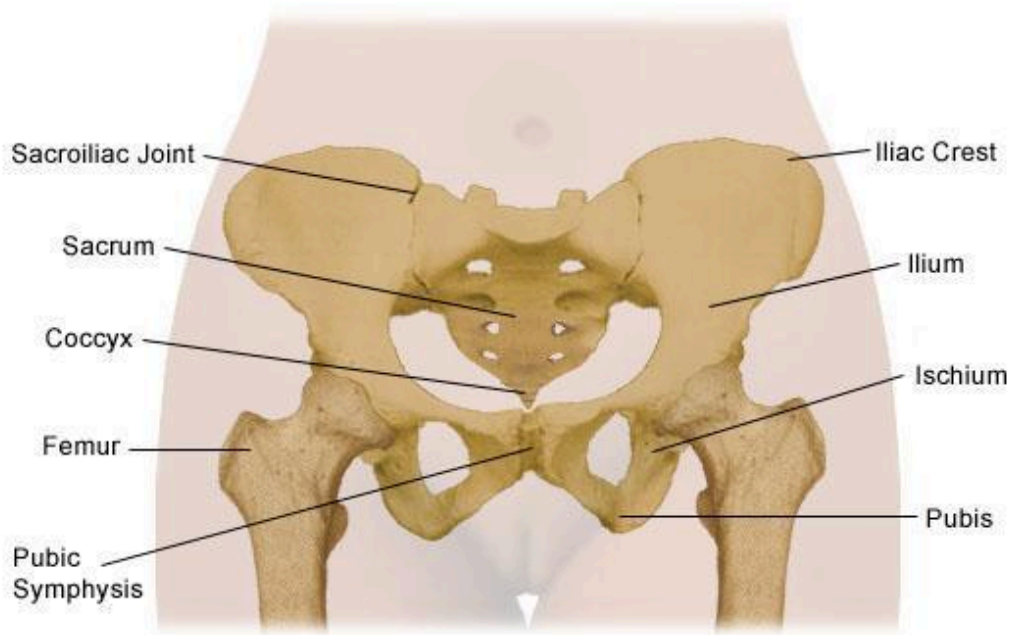
What types of Exercise?

- Prenatal Yoga
- Prenatal Pilates
- Other specialized group fitness classes available
- Walking, swimming, stationary cycling
- Aquarobics
- Strength Training
 - Use slow speed, remember to breathe, move through full range of motion, and avoid supine position
 - Functional strength training is highly recommended
- Exercise pelvic floor
 - By squeezing and relaxing the muscles that control the flow of urine and feces
- Exercise abdominals
 - By drawing navel back towards spine, hold to count of 10, then relax. Do this standing or seated. Repeat.

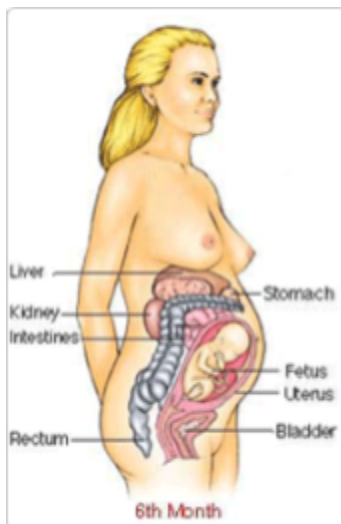
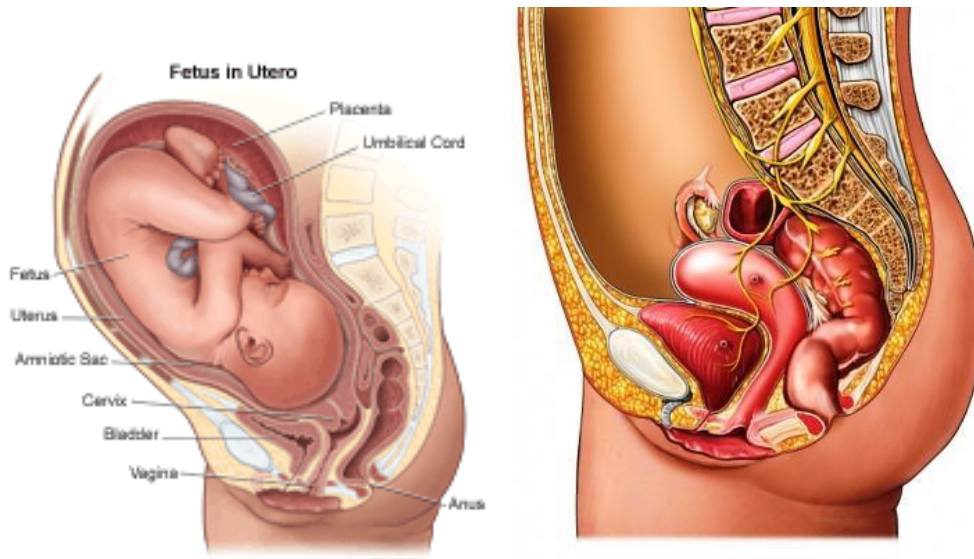
Bones and Organs of Female Pelvis



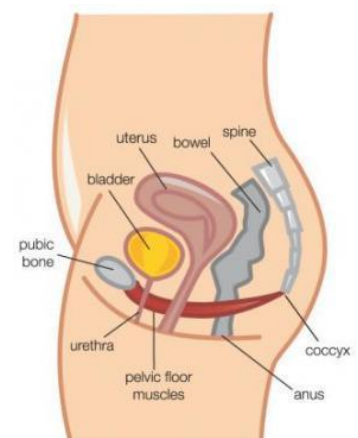
Female Pelvis



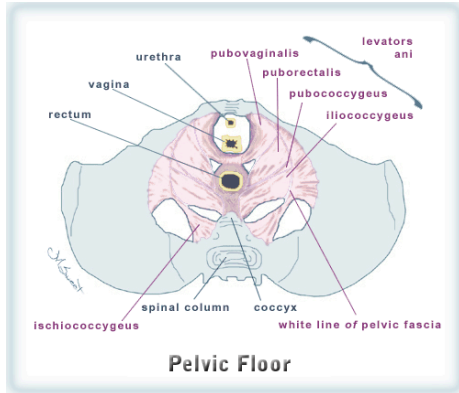
Abdominal Organs during Pregnancy



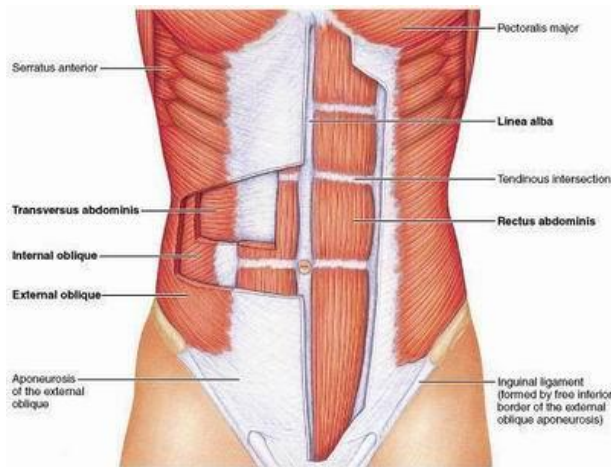
Muscles of the Pelvic Floor



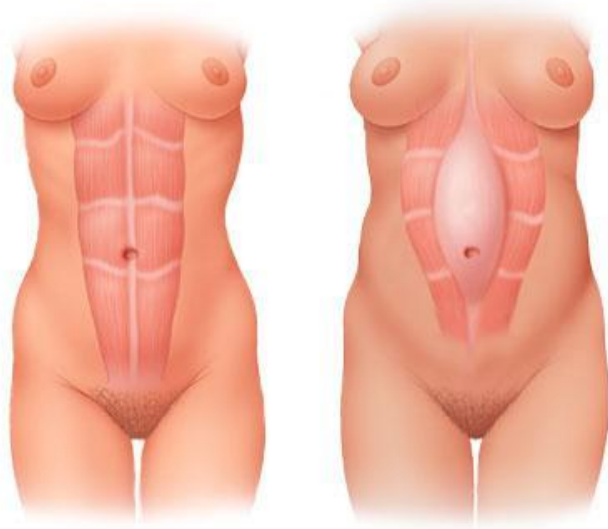
Chapter 12. Prenatal Yoga



Muscles of the Abdomen

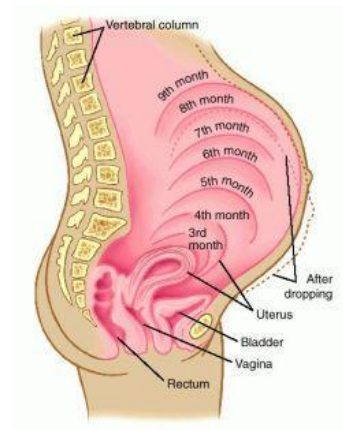


Diastasis Recti



© MAYO FOUNDATION FOR MEDICAL EDUCATION AND RESEARCH. ALL RIGHTS RESERVED.

In Utero Growth Progression:



Postpartum Exercise – ACOG & Mayo Clinic

- Benefits
 - Helps restore muscle strength & firm up body
 - Makes you less tired b/c it raises energy level & improves sense of well-being
 - Improves mood
 - Gets abdominal muscles back in shape
 - Promotes weight loss
 - Improves cardiovascular fitness
 - Helps prevent and promote recovery from postpartum depression
 - Helps with gas and constipation (especially common in C-Section)
- How to start?
 - Start with walking. It will prepare you for more vigorous exercise and the baby can come along!
 - When you feel up to it, add more vigorous exercise
 - There are special classes for postpartum health at many gyms, yoga studios, and community centers

Postpartum Exercise Guidelines (*Mayo Clinic*)

- Take time to warm up and cool down.
- Begin slowly and increase your pace gradually.
- Avoid excessive fatigue.
- Drink plenty of fluids.
- Wear a supportive bra.
- Stop exercising if you feel pain.
- Stop exercising and seek medical help if you have bright red vaginal bleeding that's heavier than a period.

Postpartum Exercise – Finding the Time (*Mayo Clinic*)

Finding time is a challenge

- And, hormonal changes can make mom emotional, which could lead to sedentary behavior
- And mom may just be too tired!
- All these things may be true, but that doesn't make it okay not to exercise
 - Do what you can
- Get social support – friends, family, and partner
- Schedule time for exercising
- Work out with a friend
- Include baby – bring with you for a walk/jog or let baby lay next to you on the floor

Specific Postpartum Exercises to Try (*Mayo Clinic*)

- Once doc says it is okay...
- Bridge
- Pelvic Tilt
- Kegal Exercises
- Abdominal Exercises

Exercise & Breastfeeding (*Mayo Clinic*)

- Exercise isn't thought to have any adverse effects on breast milk volume or composition, nor is it thought to affect a nursing infant's growth.
- High-intensity physical activity may cause lactic acid to accumulate in breast milk and produce a sour taste a baby might not like.
 - Prevent this potential problem by sticking to moderate physical activity and drinking plenty of fluids during and after workout.
- If vigorous activity is a priority during the first few months of breast-feeding, consider feeding your baby or pumping before the workout — which can also help you stay comfortable while you're exercising — or discarding any milk produced 30 minutes afterward.
- After months four to five of breast-feeding, physical activity has less of an impact on your milk since your body produces most milk at feeding time.

PREGNANCY & EXERCISE QUIZ - ANSWER KEY

1. Which exercises are generally recommended for pregnant women?

B. Aquarobics, stationary cycling, walking, swimming and yoga - *Many of the changes associated with pregnancy make the female body more susceptible to exercise-related injuries. The ligaments soften, the growing belly shifts the centre of gravity forward, and the weight gain puts joints and muscles under strain. Gentle, low impact exercises are generally recommended.*

2. How hard should you exercise during pregnancy?

B. Moderately - your heart rate shouldn't rise above 140 beats per minute. - *Maintain a moderate intensity. A general rule of thumb is to keep your heart rate below 140 beats per minute. If you are exercising in water, keep your heart rate below 125 beats per minute. Do no more than 20 minutes of vigorous activity per exercise session, and keep an*

3. How many times per week should you exercise?

A. Three to four times per week. - *You should aim for three to four exercise sessions per week, with at least two complete rest days.*

4. Why are pregnant women cautioned against saunas, hot spas and heavy sweating?

C. High temperatures are harmful to the developing baby. - *A woman generates more heat when pregnant than when she isn't pregnant. This is because of the baby, the placenta, and the extra work performed by her internal organs. Raising the body temperature above 38°C has been associated with an increased risk to the*

5. How are the pelvic floor muscles exercised?

A. By squeezing and relaxing the muscles that control the flow of urine and faeces. - *The pelvic floor muscles are tightly slung between the tailbone (coccyx) and the pubic bone, and support the bladder, uterus, vagina and bowel. A growing baby puts excessive strain on the pelvic floor muscles, but doing a few simple exercises will help avoid future problems. Urethral muscles are those that stop urine in mid-flow, and the anal sphincter is responsible for 'holding on' when you need to pass a bowel motion. Exercises involve squeezing and relaxing these sphincters.*

6. What is the best way to strengthen the abdominal muscles during pregnancy?

C. While standing or sitting, draw your navel back towards your spine, hold to the count of 10, and relax. - *It is important to keep your abdominal muscles well toned, particularly during the third trimester when the size and weight of your baby are rapidly increasing. The safest way to strengthen the abdominal muscles is to concentrate on drawing your belly button towards your spine while breathing out. Hold the position and count to 10. Relax and breathe in. Repeat 10 times, as many times per day as you feel comfortable.*

7. After the fourth month, why should you avoid exercises that involve lying on your back?

B. The weight of your baby and uterus can compress your main artery. - *The largest artery is the aorta, which connects to the heart and picks up oxygenated blood from the left ventricle. The aorta runs down the length of your torso. The weight of the baby and uterus after the fourth month of pregnancy can be heavy enough to compress the aorta and slo*

8. What should you do if you don't feel like exercising on a particular day?

C. Listen to your body and take it easy. - *It is important for a pregnant woman to tune into the rhythms of her body. If you force yourself to exercise when you really don't feel like it, you could be unnecessarily depleting your energy reserves. If you exercise about four times per week, give or take, you're on the right track.*

Additional Resources

Books

- Preparing for Birth with Yoga, Updated Edition: Empowering and Effective Exercise for Pregnancy and Childbirth (Paperback) by Janet Balaskas
- Relax & Renew: Restful Yoga for Stressful Times (Chapter 13) by Judith Lasater
- Yoga Mom, Buddha Baby: The Yoga Workout for New Moms by Jyothi Larson
- Yoga for Pregnancy: What Every Mom-to-Be Needs to Know by Judith Lasater and Suzanne Arms
- Bountiful, Beautiful, Blissful: Experience the Natural Power of Pregnancy and Birth with Kundalini Yoga and Meditation by Gurmukh Kaur Khalsa and Cindy Crawford