# Get Fit For Your Pregnancy

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- Fit & Firm After Your Birth.
- Strengthen Muscles..
- Easier Labor.
- · Quick Recovery.
- Prevent Injuries.

# ANDY CHARALAMBOUS

# **Get Fit for your Pregnancy**

#### Simple Exercises to Help you Look Great & Feel Energized Through your Pregnancy

By

Andy Charalambous

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Smashwords Edition

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## Foreward

So much has changed about what we know in regards to exercise and pregnancy. Welcome to a new world. First, let me say congratulations.

When I was pregnant with my first child I was concerned about what I could and couldn't do so I remedied this concern by doing nothing. I owned the "eating for two" bunk and somehow believed I would not need to work out or develop muscles as the baby was just going to pop out when the time came. Who knew how much physical work was involved in childbirth?

When my daughter came into my life it was the most amazing and beautiful experience but it was also a reality check!

When I learned I was pregnant with my second child, I was actually training for the U.S. women's bobsled team. I had survived the first several camps in Lake Placid, NY, been banged around and loved the sport too much to walk away. I joined forces with OB/GYN researchers so that I could ensure the safety of my unborn daughter.

In return, researchers were excited to study an athlete who was squatting over 300 pounds, running at 21 MPH, performing plyometrics (explosive bounding activities) and otherwise doing things they had never studied before with pregnant athletes. I was hooked up to EKG leads, fetal and heart monitors, oxygen masks to measure my intake and, yes, a rectal thermometer.

At that time doctors always cautioned pregnant women to pay more attention to their heart rate, discouraging the mother's heart rate from exceeding 140 bpm. But we've learned that your inner core temperature is exceedingly important! Your baby's own body temperature is one degree Celsius hotter than yours but unlike you, your baby has no way to sweat and regulate body heat. So throughout my workout routines, I was always cautioned to never let my own inner core temperature to exceed beyond 101 degree F.

Empowered with this information and strong safety guidelines, I didn't just make the U.S. team, I won Nationals and was named Athlete of the Year by the United States Olympic Committee. (Pssst! Turns out that pregnant women excrete a hormone that has a steroidal effect. I was a beast!)

When pregnant with the third child, my son, I earned my second black belt in tae kwon do. There was nothing miraculous about my training ... it had everything to do with tapping into the power, strength, beauty and majesty of pregnancy. However cliché that may sound it is nevertheless true – so true!

Because of my pregnancies, because of my children and how I learned to train while pregnant, I learned to understand and appreciate the human body. Muscle development, mother fuel, stamina and endurance are all so vital to training while pregnant. When you train while pregnant, not only do you love your own body more but most importantly, you love your child. Monitoring inner core temperature, being cognizant of proper nutrition and hydration, resting fully and working routines around your baby's safety all make you love and appreciate your child all the more. It is a beautiful and amazing experience.

After making the US bobsled team, Sports Illustrated did a story on the event and, suddenly, I was getting phone calls and letters from around the world from other elite athletes who wanted to know how I knew what to do, how to keep my baby safe. I wrote a book that included professional athletes and Olympians, celebrities and fitness models who are all mothers, all dedicated to fitness and healthy living for the entire family.

It was, I assure you, an honor to speak to these women of all walks of life. At the conclusion of each interview I would always ask, "Are you a better mother because you are an athlete or a better athlete because you are a mother?" Each time, there would be a pause and a thoughtful laugh after the question was posed. And each time, the answer was the same: I am both.

In the last decade I have served as the fitness expert for <u>www.pregnancy.org</u>, have authored numerous health and sports books, counsel pregnant women on health and happiness and am a certified trainer. Because of my own children, I have been empowered. Motherhood is not a burden. You do not lose out on dreams because of motherhood. Rather, you grow in ways you cannot imagine, finding strength and stamina, pride and power.

It is an honor to write this foreward for Andy Charalambous, a trainer/author/sports enthusiast and positive, forward thinker! His contributions to women and health are a reminder to women that we must learn to better appreciate our bodies. As Andy says, "We have more control over our lives than we think. The sooner we realize this the better the chances are of reaching our goals and fulfilling our dreams." No truer words could be spoken!

Embrace this new time in your life. Please be sure to speak to your primary physician and OB/GYN. Once you are medically cleared and are working with trainers, be mindful of your own personal goals. Whether you are preparing for an event or simply want to get or stay in shape, your ultimate goals should be the safety for your child, health, happiness and a new appreciation of your body. Welcome to the Mother Zone! It is a wild, wild ride ... never a dull moment.

Be safe!

Have fun!



Alexandra Allred www.allredbooks.com

# <u>Chapter 1</u> Susan Grossman

#### Susan's Advice

#### **Be Prepared: Planning for Motherhood During Pregnancy**

Expecting the birth of a child is a wonderful and amazing time, and a woman's body will go through many changes that may shock and surprise her. One of the best ways for her to enjoy this wondrous and yet, challenging time, is to approach pregnancy with a sense of curiosity and happiness regarding the changes taking place within her body and to plan for the additional physical challenges that motherhood brings.

She should also plan to be kind to her body during and after pregnancy by allowing herself to perform her daily duties at a gentler and easier pace. She should not feel obligated to perform at her pre-pregnancy levels but should approach pregnancy with the same warmth and consideration she would offer her best friend. Pregnancy is an excellent time for a woman to begin to learn about her own amazing body.

During this time, a woman may wish to begin or maintain a fitness program to assist her in dealing with all of the demands that pregnancy places upon her body. She should always consult with her physician before embarking on any exercise program.

If she decides to pursue an exercise program, she should plan to be much more tired and lethargic, especially during the first trimester. Her body is using a great deal of energy in creating the new life within her; therefore she has less energy available for working out and performing her other daily tasks.

If a woman has been working out prior to becoming pregnant, she should plan to work at a comfortable pace and stay away from very strenuous exercise. If she is new to working out, she should try to keep her heart rate in the low end of her target zone, which is between 55% and 65% of her maximum heart rate. To calculate her maximum heart rate, she should subtract her age from 220 and then multiply by a factor of .55 and .65. For instance, if she is 25 years old, her heart

rate should stay between 107 and 127 beats per minute. (220-25 = 195\*.55 = 107.25 and 220-25 = 195\*.65 = 126.75).

A pregnant woman may find yoga to be a beneficial exercise program. Nearly all yoga poses can be modified for different physical considerations, including pregnancy. She should avoid doing poses that fully stretch the abdominal muscles, such as Cobra or backbends. She should also avoid doing exercises while lying on her back, as blood flow could potentially be cut-off to the baby.

If a pregnant woman decides to practice yoga, she will be amazed at how much her hips begin to open up. During pregnancy, her body will begin to release the hormone relaxin, which helps her hips stretch and open for the birth of the baby. Relaxin will naturally also affect all of her joints, making them hypermobile during pregnancy and also for several weeks following pregnancy.

One excellent pose to perform during pregnancy is Pigeon Pose. Pigeon pose is a good hip opener and may also help alleviate symptoms of pregnancy-induced sciatica. Sciatica is a condition where pressure from the baby's head presses on the sciatic nerve, located in the lower spine and pelvis area, causing pain, tingling or numbness in the leg. Pigeon may be performed throughout the full term of the pregnancy and may feel especially helpful during the last trimester.

How to perform pigeon:

1. Start in a right-foot-forward lunge with the rear knee down or begin in Table pose on hands and knees. **(Figure 1)** 

2. Move or slide the right foot to the outside front of the left knee.

3. Gently drop the right knee to the mat and bring the right heel toward the pelvis, gently pressing forward with the toes of the left leg while trying to keep the hips square to the ground. If the hips need support, place a rolled up blanket underneath them.

4. If able, lean forward onto the elbows and hold the pose for 30 seconds, working up to two to three minutes. **(Figure 2)** 

5. To release out of the pose, carefully slide the right leg back and repeat on left side.



Figure 1



Figure 2

Another great pregnancy pose to help with low-back pain is Cat and Cow pose.

How to do Cat and Cow Pose:

1. Begin in Table pose on hands and knees. The hands should be shoulder width apart and the knees should be hip width. The hands should be directly under the shoulders, and the knees directly under the hips. A blanket may be placed under the knees for cushioning.

2. Gently exhale while pressing against the floor and dropping the chin to the chest. Tuck the hips and pull the abdominal muscles toward the spine. Fully flex the spine toward the ceiling (Cat). **(Figure 3)** 

3. Next, gently breathe in while pressing the pelvic bone and chin toward the ceiling, while allowing the back to arch and pressing the pelvic bones toward the sky (Cow). **(Figure 4)** 

4. Press through the hands to help flex and extend the spine in each pose.



Figure 3



Figure 4

As a woman continues through pregnancy, she will find both Pigeon and Cat/Cow Poses to be both helpful and relaxing. These poses can be performed multiple times throughout the day or are also easily done immediately upon arising and/or before going to bed for the evening.

Many times, the joy and excited expectation of the delivery becomes the main focus of a woman's daily life, and she may be unprepared for the day-to-day physical demands that motherhood creates. While most babies weigh between six and eight pounds at birth, they will quickly grow into fifteen or twenty pound bundles of joy within six to ten months. Repetitively lifting a twenty-pound baby puts a great deal of stress on a woman's hands, back and knees. Proper strength training during pregnancy and using correct lifting techniques, will greatly assist a new mother with the demands of caring for a new baby.

One crucial technique for a woman to learn during pregnancy is proper squatting. Ideally this technique would be learned early in the pregnancy but can also be learned later using a chair for balance.

How-To Squat

- 1. Practice using a wall to begin.
- 2. Start by leaning back against the wall, placing feet shoulder width apart.
- 3. Slide down the wall until thighs are parallel to the floor.

4. Knees should be directly over the ankles, with the leg forming a ninety-degree angle.

5. Be aware of, and don't allow, the knees to collapse either inward or outward. The knees should track the toes.

5. Hold for 15-30 seconds and repeat 10 times. (Figure 5)



Figure 5

After mastering the wall squat, practice squatting into a chair and holding the squat approximately 1-2" above the chair seat. This type of chair squat is

commonly called a "hover squat" because of the pause above the chair. **(Figure 6)** 





The hover squat may be quite challenging for a pregnant woman and should be practiced with precise form to avoid injury.

How to do a Hover Squat

1. Start by standing in front of the chair, heels close to the chair and legs placed shoulder width apart.

2. Push the hips back as if sitting into the chair. Imagine reaching back toward the chair with your rear to sit down.

3. Knees should be directly over the ankles and weight should be solidly in the heels.

4. Be aware of, and don't allow, the knees to collapse either inward or outward. The knees should track the toes.

5. Pause approximately 1-2" above the chair seat and hold for a count of 1 second.

6. Lightly sit on the chair for one second.

7. Gently press up to 1-2" above chair seat and hold for a count of 1 second.

8. Return to beginning position.

By practicing correct squatting techniques before the birth of her baby, a woman will be stronger to safely pick up her baby. **(Figures 7 and 8)** 



Figure 7



Figure 8

One issue a new mother may develop from repetitively lifting her baby is Carpal Tunnel Syndrome or tendonitis. Carpal Tunnel syndrome is pressure on the median nerve. Swelling can pinch the nerve and cause tingling or numbness. Tendonitis causes similar symptoms but is more localized in the thumb area. A new mother can take preventative measures during pregnancy to help prevent both problems. One way she can help avoid them is by performing a series of stretches that will help to strengthen her hands and forearms. Strengthening

exercises before delivery can help her avoid problems later. (All of these stretches also help anyone who works on a computer for many hours a day).

This series of stretches can be practiced multiple times daily. The first stretch is Fingers Wide stretch. **(Figure 9)** 



Figure 9



Figure 10

When performing Fingers Wide, stretch the arms straight out in front and stretch the fingers as wide as possible. Hold the stretch for 10-15 seconds. Repeat several times.

The next stretch is to make circles with closed fists. (Figure 10)

When performing the wrist circles, try to press the fists slowly through their full range of motion.



Finally, stretch the fingers backward using the opposite hand. (Figure 11)

Figure 11

Use caution with this stretch and do not over flex the fingers or overstretch the tendons and ligaments on the bottom of the forearm and wrist.

In addition to doing strengthening and stretching exercises for her hands and wrists, a new mother should try to pick-up and hold her baby in a way that keeps her thumbs from holding most of the baby's weight. Instead of lifting the baby with the thumb and forefinger under the armpits, she should try to lift the baby by placing one hand under the baby's bottom with the other hand cradling the baby's head.

Performing the above stretches regularly will help a woman to develop greater hand strength and motion. The additional strength will prove to be a great asset to her as she moves through pregnancy and becomes mother to a very active and growing child. Practicing proper lifting of the baby from the beginning will also help her to build the right muscle memory and good habits that may spare her injury.

Other issues that a pregnant woman may encounter stem from the greater flexibility during pregnancy and hypermobility of the joints. While hypermobile joints do assist in the birth, they can also create problems post-pregnancy. Hypermobility can make joints more prone to injury during this time because the joints can easily move beyond their normal range of motion. Some of the issues that can arise are knee, pelvic, low back and other joint pain. Usually the joint pain will clear up after several weeks as the body reverts to pre-pregnancy levels of hormones.

Because of the additional relaxin in her system, a new mother's joints are still recovering from pregnancy in the weeks, and sometimes months, following the birth of a baby. She should avoid doing any movements involving twisting her knees. Twisting the knees, especially while they are bent can lead to strained ligaments and tendons. Twisting of the knees can also on occasion cause meniscal tears in the cartilage, which can range from being relatively minor to requiring surgery.

To help her avoid twisting or straining the knees, she should use chairs, tables or sofas to assist her in getting up and down with the baby whenever she is unable to squat. One way to rise up and down from picking up the baby is to perform a kneeling lunge while using a chair.

How to Use a Kneeling Lunge to Pick up the Baby

1. Begin to the side and rear of the baby.

2. Place one foot in front of the other with the rear knee on the floor with knees hip width apart.

3. Crouch down in the hips as when squatting and pick up the baby using the hips as much as possible.

4. Return to starting position with torso upright and free hand on the chair. **(Figure 12)** 

5. Press down with the hand on the chair and lift straight up, using the legs to come to standing. **(Figure 13)** 







Figure 13

Assisted lifting with a chair will also provide a handy location to place bottles, diapers or other items so that she doesn't have to twist and bend to grab them while holding the baby.

In summary, motherhood is a wonderful time in woman's life but may also be challenging in many ways. Besides the changes in her body, a woman will probably find that her whole life changes dramatically, causing additional stress. A few simple strengthening and stretching exercises, as well as good planning before the birth of her baby will help alleviate some of the causes of unnecessary stress and injury. Maintaining a strong and healthy body both during and after pregnancy will help her to enjoy the birth of her baby even more!

#### <u>Susan Grossman</u>



#### About Susan

Susan Grossman is a certified personal trainer based in Warsaw, Indiana. She began her career in martial arts where she developed a passion for fitness training as a complete art form. She uses this passion to provide her clients with a holistic, balanced and safe approach to fitness training. She works with many individuals in the beginning stages of their fitness journey, as well as, many individuals who are over seventy years of age and those with mild to moderate health considerations. Susan also teaches yoga and instructs kettlebell classes at her studio.

She has been married for nearly twenty years and enjoys camping and horseback riding with her husband.

#### **Qualifications:**

- Second Degree Blackbelt in Taekwondo Certified American Muscle and Fitness Personal Trainer and Sports Nutritionist
- Hardstyle Kettlebell Certification through Dragon Door
- Turbo Kick Certified Instructor Currently studying Anusara Yoga for "Inspired" designation
- Owner of Warsaw's Secret Studio Bachelor Degree in Business Administration EZine Platinum Level Author

# <u>Chapter 2</u> Warren.T.Martin

#### Warren's Advice

The pregnant client will progress through an approximately 40-week gestational period from conception to delivery. This time is broken down into three main subdivisions, each about 13 weeks long. These are known as trimesters. Each trimester brings with it new changes that can affect a client's exercise program. Research has shown that women who actively engage in exercise have a more comfortable pregnancy and may have a shorter labor and less need for medical interventions.<sup>1</sup>

#### **Trimesters and Common Physical Changes in Pregnancy**

#### Trimester 1:

- Cessation on menstruation
- Spotting or irregular bleeding
- Pelvic pain
- Fatigue
- Nausea and/or vomiting
- Breast tenderness
- Frequent urination
- Weight gain

#### Trimester 2:

- Enlarged abdomen
- Fetal movements begin
- "Braxton Hicks" contractions may begin (mild, infrequent "practice" contractions)

- Increased energy
- Back pain
- Abdominal discomfort
- Constipation
- Heartburn
- Leg cramps
- Darkening of skin
- Itchy skin

#### Trimester 3

- Significantly weekly weight gain(approximately 0.75 pounds per week)
- "Braxton Hicks" contractions continue
- Vaginal pain
- Increased Fatigue
- Shortness of breath
- Heartburn
- Sciatica
- Pressure in lower abdomen
- Hemorrhoids
- Incontinence
- Varicose veins
- Vascular spiders
- Stretch marks

It is well known that a well sound exercise and nutritional program for a healthy pregnant woman is the best idea. Notice that I said healthy pregnant woman. If the doctor gives directions otherwise then it is totally important to listen and follow his or her advice!

Just as any client and exercise I put them through safety and long term health trumps any other motive! This rule is so much more important when it pertains to the pregnant woman because harm can happen to the woman or the fetus. Planned and structured exercise and nutrition programs are an absolute necessity and should not be set to the side. Each program should be based on an individual basis just as anyone else's program are designed. No empty promises should be brought up by the fitness professional as well. And lastly, the whole experience with the pregnancy should be fun and enjoyable.

The things I will be covering in this chapter are:

- Postural changes that can cause major issues during and after pregnancy ;
- Precautions for women in this special population;
- What and how to assess yourself;
- How to design exercise training programs;
- Proper nutritional strategies;

#### **Musculoskeletal System Changes While Pregnant**

The musculoskeletal system of a pregnant woman changes significantly throughout her pregnancy which causes a pregnant woman's center of gravity to change. Increased lordosis (or, excessive arching) of the lumbar spine and kyphosis (or, rounding) of the thoracic spine are common changes in posture. This happens to give room for the baby to grow. These two changes in posture are known as upper and lower cross syndrome.

Also each of these conditions has a major impact on low back pain, mid-back pain, fatigue, sciatica (nerve pain down the butt to leg), SI Joint pain, and headaches. All these problems incorporating proper flexibility, core stabilization training, and balance training into the pregnant woman's exercise program. They also demand the execution of each exercise with proper technique. So the importance of finding someone very qualified in human movement or corrective exercise is essential for your safety.

#### What Causes These Postural Changes?

#### **Endocrine System While Pregnant**

There are many hormonal changes that take place during pregnancy that have an effect on joint laxity. One hormone in particular, relaxin, softens ligaments and

connective tissue of the ankles, feet, hips, knees, shoulders, and pelvis, which can make it easy for pregnant women to overstretch, creating relative flexibility. Overstretching can be avoided by selecting the appropriate stretching technique and ensuring that you can perform the exercises with perfect form.

#### **Cardiorespiratory System While Pregnant**

Though respiratory changes may create obstacles, they should not deter you from exercising. During pregnancy, many cardiorespiratory changes take place. For example, stroke volume increases by 10%, heart rate increases by approximately 20%, and cardiac output increases 30-50%.

Body position during exercise is important as well after the first trimester, due to obstruction of the venae cava (or, the two major veins of the body) decreases cardiac output. Therefore, laying on your stomach should be avoided during exercise after the first trimester.

\*Beginning clients (who have never worked out) should train between 50 to 65% of maximal heart rate. These beginners could also simply estimate their target heart rate to be 20-25% lower than their non-pregnant target heart rate.

\*\*Advanced clients (who have been consistently exercising, prior to pregnancy) can achieve up to 80% of maximal heart rate and/or a rating of perceived exertion of 13-14 on an original Borg scale (of 20) or 3-4 on a modified Borg scale. (This is based on your doctor's approval)

#### **Metabolic System While Pregnant**

During pregnancy, the metabolic system is functioning twofold thereby increasing heat production. Since exercise generates an increase in body temperature, it is important that you regulate core temperature by wearing lightweight clothing, keeping hydrated and exercising in a temperaturecontrolled room. For example electric fans may be used during stationary cycling or other indoor exercise.

#### Assessing Yourself to Set Goals

Here are a few questions to ask yourself to figure out what you really want. Many times the goals wanted are not practical. For example to want to exercise to be fit or lose fat are just not smart when it comes to pregnant exercisers.

• What do you want your life to be like when you are nine months pregnant? What kinds of activities do you want to be able to do?

• What do you want your life to be like when your child is celebrating his/her first birthday?

• What kinds of activities do you want to be able to participate in, both by yourself and with your child?

• What do you want your life to be like when your child is celebrating his/her fifth birthday?

• What kinds of activities do you want to be able to participate in, both by yourself and with your child?

- What would you try to accomplish in life if you knew you couldn't fail?
- What kinds of activities do you find so interesting and engrossing that you lose your sense of self-awareness?

I understand that you are concerned about weight gain, and fearful that you may be unable to lose the weight after giving birth. Proper workout design will make it easier to get that body back quickly after having your beautiful baby. Still, weight gain during pregnancy is both healthy and inevitable, with doctors recommending that most pregnant women gain 25-35 pounds. Trying to minimize weight gain during pregnancy can have negative psychological and physical effects.

**Exercising while pregnant contributes to a more comfortable pregnancy and labor, and helps build a "fitness base" that can make returning to exercise (and losing weight after birth) easier.** Research shows that within six weeks of giving birth about a third of new mothers have resumed vigorous exercise, and those women adjust better to being a parent, feel better about themselves, and are more likely to participate in fun activities such as socializing and engaging in hobbies.

#### **Nutrition and Pregnancy**

Proper nutrition plays a significant role during pregnancy. The goal is to consume sufficient energy and nutrients in order to support proper growth and development of the fetus and support the pregnant woman's physiological changes. Nutritional status is closely linked to the outcome of the pregnancy.

These are guidelines for proper intake of energy, macronutrients, folic acid, iron, calcium, and fluids will be addressed. Dietary vitamin and mineral intake should be increased, in conjunction with a prescribed pregnant multivitamin. This data

is intended to inform and is not intended to diagnose/treat, or replace a physician's recommendations.

With a basic understanding of general nutrition recommendations for the pregnant client, and with the appropriate care and guidance of a qualified professional, nutritional status can be improved.

#### **Eating Guidelines**

Neither total energy expenditure nor weight has been shown to increase significantly during the first trimester. Thus, an increase of 300 calories per day is only recommended during the second and third trimesters.

Slightly more calories may be needed for women who are exercising during pregnancy because their energy expenditure will be higher. Additional calories may be required to ensure that there is no caloric deficit. This can be easily monitored by tracking weight gain. Most women of normal pre-pregnancy weight will experience a weight gain of 25-35 pounds during pregnancy. Weight gain during the first trimester should be minimal (approximately 3.5 pounds), with the majority of the weight gain (approximately 1 pound per week) occurring during the second and third trimesters.

#### <u>Suggestions listed are intended to serve as general guidelines for an</u> <u>otherwise healthy pregnant female</u>

- Total Calories 300 more than usual recommendations, in 2nd & 3rd trimester
- *Protein 1.1 g/kg/day (or, 71 g)*
- Carbohydrates 175 g (or 45-65% of TCI) Fiber 28 grams
- Fats 20-35% of TCI
- Fluid 3 L (or about 13 cups)
- Iron 27 mg
- Calcium 1000 mg
- Folic Acid 600 mg

#### Vitamins:

• B vitamin, folic acid (or, folate), is associated with proper neural tube development, normal cell division, and the prevention of birth defects. Research has shown a significant correlation between pregnant women with poor folic acid levels and babies born with neural tube defects (such as spina bifida). The RDA is 600 mcg. per day of folate during pregnancy and prior to conception. Good sources of dietary folate include dark green leafy vegetables, asparagus, broccoli, orange juice, and fortified grains and cereals. Folic acid status should be addressed even before conception, when possible, in order to lower the risk of birth defects. If conception is likely, it is advised that a woman ingest a pre-natal multivitamin containing folate to ensure adequate folic acid levels during the critical phases of fetal development.

• Pregnant women should take a prescribed pre-natal multivitamin to supplement their dietary intake of nutrients. Due to the potential of toxicity with excessive preformed vitamin A intake, the pre-natal multivitamin should have beta-carotene listed as the form of vitamin A. Beta-carotene (as opposed to other forms of vitamin A) is converted to vitamin A only as the body requires it, therefore, eliminating the risk of toxicity.

• Be advised that there is a lack of research on the safety of additional supplementation of vitamin C and E, beyond that supplied by a pre-natal multivitamin.

• Iron needs are higher during pregnancy due to an increase in blood volume, in preparation for blood loss during birth. The fetus also stores iron because, when nursing after birth, breast milk provided to the newborn is very low in iron. Low iron stores in the pregnant woman are associated with premature delivery, low birth weight, anemia, and maternal infection. Heme-iron, found in red meat, is the most available form in the diet. Nonheme iron, found in leafy greens (such as spinach), is not an ideal dietary source. The RDA for iron is 27 mg. per day during pregnancy.18 Again, a doctor prescribed pre-natal multivitamin is an excellent way to ensure sufficient iron stores. Anemia (resulting from low iron) is a fairly common condition during pregnancy, which may result in a physician prescribing an additional iron supplement.

• During pregnancy, calcium is necessary for fetal bone ossification and may also reduce the risk of maternal high blood pressure. 20 Calcium is also needed for muscle contraction and nerve transmission. As with all other

nutrients mentioned, the fetus will draw on the pregnant woman's stores to supply the needed nutrients. If the mother has sub-optimal calcium intake, her stores will be low after birth. Should another pregnancy quickly follow before nutrients are shored up, the risk of osteoporosis increases. Dairy products are the major dietary source of calcium. The 2002 RDA of calcium was 1000 mg. per day.18 However, some experts recommend 1300 to 1500 mg. per day during pregnancy. A minimum of three servings of dairy products each day should be consumed. A serving is considered equivalent to one 8-ounce glass of milk, which provides about 300 mg. of calcium. Although, pre-natal multivitamins contain calcium, it is not unusual for a physician to prescribe additional calcium supplementation, if dietary intake is insufficient or there will not be a considerable amount of time between pregnancies.

#### **Basic Exercise Guidelines for the Pregnant Client:**

#### Mode:

• Low-impact or step aerobics that avoid jarring motions, treadmill walking, stationary cycling and water activity.

#### **Frequency:**

• 3 - 5 days per week for the previously sedentary; (TOO MUCH – 3 TO 5 DAYS)

- 5-7 days per week for active clients Cardio Intensity:
- Beginning clients: 50-65% of HRmax (Zone I training).
- Advanced clients: up to 80% HRmax (Zone II training) and/or a Borg scale reading ranging from "moderate" to "somewhat hard". Stage I and Stage II

#### **Duration:**

- 20 30 minutes of per day for previously sedentary clients.
- There may be a need to start out with only 5 minutes of exercise and progressively increase to 30 minutes, depending on the severity of conditions and client's pre-existing level of fitness

#### Assessments:

• Overhead Squat Test by a qualified NASM Corrective Exercise Specialist if available

#### Flexibility:

- Static, active stretching and SMR\*
- Stretching only should be done seated or standing after the 1st Trimester

#### **Resistance Training:**

- 2-3 days per week at 12-15 repetitions.
- Stability, Strength, and Corrective Training are advised
- (use only Corrective and Stability after first trimester)

#### **Special Considerations:**

• Avoid exercises in a prone (on stomach) or supine (on back) position, after 12 weeks of pregnancy.

• \*SMR after first trimester may not be tolerated in all clients.

• Client should NOT foam roll the inside of the lower leg as this may induce premature uterine contractions – stay on the lateral gastrocnemius and peroneal regions.

• Avoid sore varicose veins and areas with swelling.

#### Sample 1<sup>st</sup> Trimester Workout; Corrective Exercise Phase

#### Warm-Up:

- 1. Foam Roll: IT-Band, Piriformis: Hold each tender spot for 30 sec.
- 2. Static Stretch: Gastroc, Kneeling Hip Flexor, Adductors, Lats; Hold 30 sec
- 3. Cardio: Elliptical Trainer 5-10 min Stage 1(HR at 65%-75%)

#### Core & Balance:

- 1. Floor Bridge 1-2 sets; 10reps; 3 sec hold
- 2. Single-leg Balance 1-2sets; 10 reps; 3 sec hold

#### **Resistance Exercise:**

TOTAL BODY: Ball Squat to Curl 1-3sets; reps 15; intensity 40%; Tempo is Slow

CHEST: Bench Dumbbell Chest Press 1-3 sets; reps 15; intensity 40%; Tempo is Slow

BACK: Seated Row Machine 1-3sets; reps 15; intensity 40%; Tempo is Slow

SHOULDERS: Standing 2-leg Scaption 1-3 sets; reps 15; intensity 40%; Tempo Slow

TRICEPS: Bench Dumbbell Triceps Extension: 1-3 sets; reps 15; intensity 40%; Tempo Slow

#### Cool Down:

1. Static Stretch: Gastroc, Kneeling Hip Flexor, Adductors, Lats

2. Cardio: Elliptical Trainer 5-10 min Stage 1

This is a great example of what to do when you start a program. It is very important to understand that there is NOT a "One Program Fits All" especially when it comes to pregnant exercisers.

It is very important that not only technique is stressed but also proper progressions depending on your beginning level of fitness, goals, and stage in the pregnancy. If you are interested in getting a full complete individualized workout that will provide the best most enjoyable pregnancy possible, call or email me ASAP. Even if you are planning on becoming pregnant you should not wait. Check out my website to get more information on how I can help. It will be the first step in caring for your new BABY!

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#### Warren.T.Martin



#### About Warren

Best Selling Author, BS, NASM-PES, NASM-CES, MMACC

Mobile 501-472-1177

<u>www.spreaker.com/page#!/user/wmfitness</u> - WMFitness Podcasts - fitness information and workouts

www.facebook.com/CoachWMF - WMFitness facebook Fan Page

<u>www.wmfitness.com</u> - Main blog site and program info. Podcasts and featured exercises <u>www.mytrainerwarren.com</u> - Complete featured exercises and fitness competitors/ trainers under Warren Martin Fitness

<u>www.fitness100percent.com</u> - Complete information from Professional Athletes and Professional athletes trained by Warren Martin. Detailed info in all areas of fitness along with testimonials!

- Warren has over 18 years professional work in fitness, (pre and post grad).
- Over 10 years professional work in fitness, (post grad).
- He spent 6 years in the Marine Corp.
- Trains pros, other trainers, strength coaches, youth and people in the community.
- Has completed over 40 continuing educational credits and specializations.
- BS in Wellness & Programming Fitness.

- NASM Performance Enhancement specialist.
- NASM Corrective Exercise specialist.
- MMA Strength & Conditioning Coach.

• Specializations: Youth Fitness, Senior Fitness, Weight Management, Fat Loss, Muscle Development, Lower Back Injury, Neck/Shoulder Injury, Foot/ Ankle/Knee Injury, Cardio Specialist, SQA performance, Golf performance, Prenatal/Postnatal, and much more.
# <u>Chapter 3</u> Kellie Adkins

# Kellie's Advice

Pregnancy is a time of great change and transformation. As your baby grows inside your womb, your body adapts and shifts to accommodate that new life. Pregnancy is a beautiful, magical process. Practicing yoga while you are pregnant is act of self-care that results in a profound benefit for your baby: a relaxed mommy! As you read the following information on prenatal yoga and holistic health, regard it as an opportunity to learn more about the amazing process your body is going through.

Keeping yourself healthy during pregnancy is the best thing you can do for your baby's current and future health. Women who eat right, exercise, and practice mindfulness have happier, healthier babies, report less pain during delivery, and have speedier recoveries. Mommy's health {or lack thereof} is strongly correlated with baby's health -- and this correlation lasts a lifetime! That means, by practicing mindfulness, eating right, and performing yoga poses during your pregnancy, you can positively affect your baby's lifelong health.

#### **Prenatal Nutrition**

Pregnant women have increased nutritional needs and require more calories and more essential vitamins and minerals. In addition to eating a 'rainbow diet' –a diet rich in foods of many colors –be sure to take a high quality prenatal vitamin daily.

Throughout your pregnancy, be sure to choose whole foods that are rich in vitamins and minerals as this will provide the best nutrition for you and your baby. Whole foods are minimally processed foods as close to their natural form as possible. Whole grains, dark leafy greens, bright orange vegetables, and organic dairy should comprise the bulk of your diet. Be sure to include a high quality source of protein at every meal: lean, well-cooked meat or poultry, beans, tempeh, tofu, lentils, nuts, nut butters, or white fish. Avoid soft cheeses, unpasteurized milk, undercooked meat, raw fish {as in sushi}, and fish like tuna,

shark, swordfish, and catfish. Be sure to drink adequate water and avoid sugary sodas and caffeinated beverages, too.

#### Why Prenatal Yoga

Yoga is a mind-body exercise that increases flexibility, strength, and focus. Yoga improves breath capacity, At its most basic, yoga is union. Yoga comes from the Sanskrit word "yug" meaning to yoke, bind, attach, or join. Yoga refers to the yoking together of body, mind, spirit/emotions in breath, movement, meditation, service, and/or devotion. Any practice that serves to connect us – inseparably – to this present moment can be called yoga; however, the term usually refers to a set of physical exercises {and, in some cases, the complementary breathing and meditation exercises} known as Hatha Yoga. Most elegantly described at the "yoga of force," Hatha yoga purifies the body, mind, and spirit through manipulation of prana {life force} using postures, breathwork, and meditation to achieve a state of union {yoga}.

Hatha yoga {heretofore referred to as just 'yoga'} is comprised of conscious breathing, mindful movement, and meditative concentration and is one of the best ways to prepare your body for the work of labor and delivery. More than just labor and delivery preparation, though, yoga provides an excellent set of physical and psychological tools for dealing with the minor discomforts of pregnancy and the challenges of new motherhood.

Throughout your pregnancy, your body is changing to accommodate the growth of the child within. Each trimester brings new changes as the baby grows and the due date nears. It's important to understand these changes in your body before practicing prenatal yoga. While prenatal yoga is safe for most mommies-to-be, it's imperative you receive permission from your primary prenatal care provider before beginning a yoga practice. In certain cases, such as high-risk pregnancies, it's recommended you not begin a yoga practice until after you deliver.

Learn to interpret your body's needs and to heed your internal cues for rest. While most of the *asanas* {poses} offered in this chapter are suitable for most pregnant women, some of them need modifications and support after a certain point in your pregnancy. For this reason alone, it's highly recommended you find a qualified prenatal yoga teacher in your area. Use this book as a home study guide, not as a substitute for a trained prenatal yoga teacher.

Furthermore, because the risk of miscarriage is the highest in the first trimester, it is recommended you wait to begin a prenatal yoga practice until your second

trimester. The first trimester is an exhausting time for soon-to-be mommies; in the first few weeks of pregnancy, your baby is doubling its size almost daily! It's normal and natural for mommies-to-be to feel nauseous, dizzy, tired, and cranky during this time. Give yourself permission to rest deeply and practice conscious breathing and guided meditations instead of the poses during your first trimester.

### Mommy mantras for the first trimester

*My* most important job is to rest.

*The best thing for my baby is my deep relaxation.* 

When I take care of myself, my baby feels protected and safe.

## Mommy mantras for the second trimester

When I relax my body, my baby feels calm and secure.

*My* body knows exactly how to make a healthy, happy baby.

*I* strengthen my body for my baby's safety and my own health.

## Mommy mantras for the third trimester

*My* body is the best home for my baby.

*My* body knows how to deliver a healthy, happy baby.

*Labor is my opportunity to practice single-pointed focus.* 

## More than the Physical

Yoga is much more than just physical postures: it is a complete practice involving attention to the breath, the body, and the mind. While the postures are excellent ways to improve balance, coordination, flexibility, strength, and stamina, it is the breathing and mindfulness techniques that enrich our lives on and off the mat. While you're pregnant, begin to incorporate some conscious breathing and mindfulness into your daily routine: especially as you give your body the rest it needs during the first trimester.

Meditation is an excellent labor and delivery aid and can ease some of the psychological strain caused by the discomforts of pregnancy. Meditation and the simple act of turning inward can also help you both during pregnancy and after you deliver in handling the strains of new motherhood. Anyone can meditate: in fact, learning how to calm and control our mind is one of the keys to developing

lasting happiness. Meditation is non-denominational and is a tool for learning how to improve your focus and enhance your concentration.

The traditions of mindfulness meditation have centuries of rich experience and method validating their techniques. Modern neuroscience now further validates the efficacy of meditation and mindfulness training with groundbreaking studies which show these techniques to improve focus, enhance memory and recall, reduce anxiety, and lower the body's stress response. The simplest form of meditation is a breath awareness meditation and anyone practice this because we are all breathing all the time!

Pregnancy is an excellent time to embrace meditation because your baby's hormonal system is uniquely linked to yours; by learning to control your own thoughts, you also control your physiological state. When you are stressed, your baby feels stress. Similarly, when you relax, your baby relaxes. Meditation is simply a conscious, deliberate form of relaxation which anyone can practice.

BEFORE you start meditating....

1. Clean your space: a clean room {or meditation area} will set the foundation for a clear, calm mind

2. Turn off your cell phone {or put it on silent}

3. Commit to giving yourself this time  $\{\sim 15 \text{ minutes per meditation}\}$ 

4. Let go of any expectations and judgments. There is such thing as a 'bad' or a 'good' meditation session: the point is the *process*, the path *is* the goal. If your mind wanders throughout the session, understand and recognize the wandering mind as part of the practice.

*To remain COMFORTABLE during meditation....* 

1. Feel free to lie down and use a relaxing aromatherapy eye pillow

2. Sit on a meditation cushion or several firm pillows with your back against a wall

3. Keep your shoulders and jaw relaxed

Remember, meditation is simply the art of being aware: aware of the distracting thoughts, aware of the sensations, aware of our emotions. Beneath the turbulent surface of thoughts lies a calm, clear, and focused mind.

#### **Breath Awareness Meditation**

On your next inhale breath, imagine you are breathing into your lower belly: breathing health and happiness to your baby. Give your inhale breath a soothing color —blue, green, or radiant white—and offer the nourishing inhale breath to your baby. As you exhale, feel your body releasing stress and tension from the back, the hips, and the jaw. Inhale again and breathe life, light, and a soothing color down to your baby. Exhale again and relax a little more deeply. If you are feeling tired, let the inhale breath invigorate you: let the exhale breath calm you. Repeat this practice for five to ten minutes.

When we think of yoga, we mostly think of the physical postures {called *asanas*}; however, the postures are just one branch on the great tree of yoga. Many people think we must be flexible or thin to practice these postures. On the contrary, yoga postures are designed to give us more flexibility: being flexible is hardly a requirement. Below are some basic postures to get you started on your yoga practice. The descriptions and pictures below are in no way a substitute for a qualified yoga teacher, though. Be sure to seek out a certified yoga teacher in your area who specializes in Prenatal Yoga.

Once you are safely in the second trimester, begin to practice the poses shown below. With few exceptions, these poses are safe throughout the remainder of your pregnancy. Practice these poses during your pregnancy —and throughout your labor—for a happy pregnancy and a healthy delivery.

#### **Conscious Breathing exercises**

By specifically training in breath awareness and appropriate breathing techniques throughout your pregnancy, you can experience less pain, stress, and tension during the labor and delivery process. Nose breathing is best – when possible – because the nose is the ideal filter for the air before it passes to our lungs. Nostril breathing allows us to filter bacteria, mold, and viruses, and warm the air before it hits our lungs. It also allows us to slow down the inhalation. This particular aspect of yogic breathing that has immediate physiological result of slowing the heart rate and activating the calming response. Try the technique below and practice this whenever your feel overwhelmed or stressed.

#### **Alternate Nostril Breath**

There are many ways to do this breath, and depending on season, body type, or emotional state, you may want to change it. Here is the 'general' technique:

Fold the first 2 fingers of your right hand in and place the ring finger on the left nostril, the thumb on the right nostril. Take a deep inhale through BOTH nostrils then

Close L, Exhale R

## Inhale R, then close R, Exhale L

## Inhale L, then close L, Exhale R {that was 1 round}, repeat

## **Benefits:**

Evens out the bodies systems, promotes better communication with both sides of the brain. Balances emotions, calms anxiety, increases respiratory capacity, slows breathing. Invigorates or calms, depending on technique.

## **Beginning a Postural Practice**

Once you are safely in your second trimester and your primary prenatal care provider clears you for exercise, begin practicing the poses detailed below. Try to allow at least 30 minutes for a full practice, with plenty of time for relaxation afterward. It's better to do a little yoga every day {even 10 minutes} than try to cram a long session in once a week. Remember to listen to your body, to drink water before, during, and after, and to take breaks whenever you need.

BEFORE you start the poses:

# What you'll need

1 sticky mat

2 blankets

- 1 10-foot yoga strap
- 2 firm blocks
- 1 yoga bolster or 2 firm pillows
- 1 eye pillow {optional}



#### What to wear

Please wear clothes that you can easily breathe and stretch in. Leggings and tee shirts are perfect. We practice yoga barefoot, though you may want to have socks and a long sleeve wrap for Relaxation Pose.

#### When to begin

Begin practicing gentle poses like Relaxation Pose on your side or with a bolster under your knees, Cobbler's Pose, and Easy Seat as soon as you become pregnant. Practicing more than those gentle postures during your first trimester, however, is not encouraged. During your first trimester, nap frequently, take long walks, and make yourself a cup of decaf green tea.

#### How to practice

The experience of pregnancy is unique to every woman. Listen to your body at all times. The yoga postures and sequences included here are intended to challenge you just enough, while easing the discomforts of pregnancy, and preparing your body for the work of labor and delivery. Please practice yoga or go to yoga class as regularly as possible; regular practice will do both your body and your baby the most good.

#### Good to know

After 20 weeks, please do not lie on your back. If you experience any of the following symptoms, stop practicing immediately and call your primary prenatal care provider:

vaginal bleeding sudden high fever frequent vomiting {more than a few times an hour} regular, rhythmic contractions severe persistent headache lack of fetal movement sharp pains of any kind dizziness arrhythmic heart beat leaking of fluid from the vagina sudden swelling {edema} frequent burning urination severe shortness of breath

### The Poses

#### **Easy Seat**

Sit comfortably on your mat and allow your legs to cross. If this forces your back to round or your knees to become uncomfortable, elevate your bottom on the blanket or the pillows. Try to keep your shoulders above your hips and your stomach slightly firm. Let your shoulders relax away from your ears and tilt your chin down slightly to lengthen the back of the neck. Rest your hands on your knees and soften your hip creases. Allow your lower body to relax and take several deep breaths.





#### **Cobbler's Pose**

Sit comfortably on the mat and bring the soles of your feet together. If this forces your back to round or your knees to become uncomfortable, elevate your bottom on the blanket or the pillows. Try to keep your shoulders above your hips and your stomach slightly firm. Let your knees soften out to the sides. If your knees are uncomfortable here, you can slide a block underneath your outer hips to relieve the discomfort. Rest your hands on your feet or shins and remain here for several breaths. If you'd like more stretch, lean forward over your feet, supporting yourself on your hands.



#### **Relaxation Pose**

Lie down on your back {unless you're over 20 weeks, then lie on your side} and slide a bolster or pillow underneath your knees. Relax your arms to your sides,

turning the palms up. Place the eye pillow over your eyes and focus on your breathing. Remain here for at least five minutes.



#### **Tree Pose**

Stand near a wall for support and lift one leg up, pulling the knee into your chest. From there, take the leg out to the side and place the foot against the shin or the thigh of the standing leg. Straighten your spine and firm your stomach slightly for support. Keep pressing the standing leg foot evenly into the floor. Keep one hand on the wall for support or take your hands together at heart center in prayer position. Remain here for at least five breaths then repeat the second side.



#### **Triangle Pose**

Stand at the front of your sticky mat then step out to the side with the right foot. Your body will be facing the long edge of the mat. Point your front foot {left foot} directly forward and angle your back foot {your right foot} in slightly. Stretch your arms out straight from the shoulders then shift your hips back toward your right foot and lean your upper body over your left leg. Place your left hand on a block and stretch your right arm up toward the ceiling. Stretch your arms from wrist to wrist and press firmly into your feet. Look down toward the floor. When you're ready to come out of the pose, bend your front knee and press up to a standing position. Repeat the second side.



#### **Side Angle Pose**

Stand at the front of your sticky mat then step out to the side with the right foot. Your body will be facing the long edge of the mat. Point your front foot {left foot} directly forward and angle your back foot {your right foot} in slightly. Stretch your arms out straight from the shoulders and bend deeply into your front knee. Ensure the knee remains over the ankle, not turning in or out or moving beyond. Lean your torso over your front thigh and set thhe back of the left forearm down onto the thigh. Extend your right arm straight up from the shoulder. Remain here for as long as you like. When you're ready to lift up, press into a standing position and change sides.



### Wide Leg Forward Fold {Standing}

Stand at the front of your sticky mat then step out to the side with the right foot. Your body will be facing the long edge of the mat. Turn both feet toward the long edge of the mat so that the pinky toe and the outer heel align. Lean forward, placing your hands on blocks directly underneath the shoulders. If you feel dizzy or lightheaded come out of the pose immediately. Hold the pose for as long as you like, bending your knees when you're ready to lift up.



#### **Fire Log Pose**

Sit comfortably with your sitting bones on the floor or elevated on a blanket. Cross one ankle over the opposite thigh. Keep the ankle flexed {do not allow the ankle to sickle} so the sole of the foot faces out to the side rather than up. Allow your shins to stack one atop the other. You'll feel this in the outside of the both hips. Hold here for at least two minutes. If you need more stretch, walk your hands forward, keeping your spine long. Release and repeat the second side. If needed, lean back on your hands keeping one foot firmly on the floor and the other ankle atop the thigh.





## Wide Leg Forward Fold {Seated}

Sit on your sticky mat and open your legs into a wide v-shape. Walk your hands forward as far as you can while keeping the toes pointing up toward the ceiling. If you need, rest your chest on a pillow or bolster.



#### **Child's Pose**

Come to all fours on your sticky mat. Bring your big toes together and your knees a little wide and sink your hips back toward your heels. If you need, rest your chest on a pillow or bolster and place a blanket behind your knees.



#### Table

Table is a place to practice equanimity and balance. As the baby grows, your balance is affected more and more. Practice table to return to generate more awareness of your center and to gently tone the muscles of the abdomen and lumbar spine. Give your stomach muscles a gentle 'hug' in here to support both your baby and your lower back. Table is an excellent, supportive place to labor and some women even deliver from this position. Practice this pose throughout your pregnancy.



#### **Spinal Balance**

Spinal balance is table with one arm and the opposite leg lifted. Keep your abdominals slightly firm as you lengthen the arm forward from the shoulder and the leg back from the hip. Aim to keep your palm turned in and your toes turned down. This is optimal alignment for your shoulder and hip, respectively. Hold this for 3 to 5 breaths and be sure to repeat the second side.



**Pelvic tilts** 

Come to all fours on your sticky mat. Ensure your hands are directly underneath your shoulders and your fingers are spread out. Keep your knees hip-width apart. On an inhale breath, let your belly drop down and your tailbone tilt up toward the ceiling. If you feel ok, pull your shoulders away from your ears and look up. On an exhale breath, arch your spine like a cat, pressing your upper back toward the ceiling and curling your tailbone down and in. keeping your arms straight and strong, move back and forth between these two movements several times.





#### **Bridge Pose**

Lie on your back and bend your knees, placing the feet directly beneath the knees. Lift your bottom up and press the backs of the arms firmly into the mat. If you'd like, place a bolster or stack of blankets beneath your hips. Hold 3-5 breaths {or up to 2 minutes} and come down to rest. Repeat once or twice.



#### **\*\***Special concerns for the third trimester

Avoid unsupported low squats {sit on a bolster or stack of pillows} after 36 weeks.

If your baby is breech after 36 weeks, practice the Bridge Pose.

Lie on your side during Relaxation Pose.

## Conclusion

Pregnancy is the perfect time to begin taking better of your body. You will benefit tremendously from the practices of yoga –integration of the body, the breath, and the mind. Remember, you are the authority on your body. Enjoy your pregnancy as best you can and nourish yourself and your baby with your prenatal yoga practice.

# Kellie Adkins, M.Sc., ERYT500, RPYT, RCYT



## <u>About Kellie</u>

Kellie Adkins is a holistic health coach and the founder of the Wisdom Method<sup>TM</sup>: a conscious evolution of mindful movement which unites the wisdom traditions of yoga, Ayurveda, and Eastern thought, with the foundational sciences of cognitive neuroscience, nutrition science, and positive psychology.

Kellie holds the highest level of national registration for yoga teachers, is a certified Prenatal and Children's yoga teacher, and is a well-respected authority in her field. Kellie holds a 500-hour therapeutic yoga certification, and has completed hundreds of hours of continuing education in prenatal yoga, children's yoga, yoga therapeutics, yin yoga, anatomy, and Ashtanga yoga.

Kellie's graduate training in nutrition {M.Sc. Nutrition & Food Science} included graduate research on the efficacy of functional foods for women's health and labwork in nutritional neuroscience. During her graduate studies, she worked closely with undergraduates to implement health behavior changes and nutrition education. Kellie's runs a private health and wellness coaching business via Skype and works with clients all over the world.

Kellie loves combining her yoga and health knowledge to help others create a more vibrant life. She is the creator of a 21-day lifestyle change virtual program –the Radiant Health Intensive –which combines therapeutic yoga sequences, healthy recipes, nutrition knowledge, meditation instruction, and insight exercises to help others create lasting, radiant health {in only 20 minutes a day}.

Kellie founded & directs the Wisdom Method<sup>TM</sup> School of Yoga – a Yoga Alliance registered, integrative yoga school offering basic, specialty, &

advanced yoga studies. Kellie leads teacher trainings and retreats nationwide and wellness coaching via phone or Skype.

During her free time, Kellie is an avid writer and regular contributor to several well-known health and yoga blogs.

Contact Kellie for information about wellness coaching, holistic nutrition, or virtual trainings.

- Coaching: <u>http://kellieadkins.com/wellness</u>
- Virtual programs: <u>http://radianthealthintensive.com</u>
- Facebook: <u>http://facebook.com/kellieladkins</u>
- Twitter: <a href="http://twitter.com/kellie\_adkins">http://twitter.com/kellie\_adkins</a>
- YouTube: <a href="http://youtube.com/kellieadkinsyoga">http://youtube.com/kellieadkinsyoga</a>
- Blog: <u>http://kellieadkins.com/blog</u>

# <u>Chapter 4</u> Dr.Marisa R. Silver

# Marisa's Advice

The day a women finds out that she is pregnant is one of the most gratifying days of her life. It's filled with the emotion of bringing a whole new life into the world and it becomes very evident that she will be a "condo" for this baby for 9 months to follow.

The 1<sup>st</sup> trimester is the most important. The countdown of your baby's birth begins two weeks before you conceive, or on the first day of your last menstrual cycle. Pregnancy lasts an average of 280 days, or 40 weeks from the start of your last period. When one first finds out they are pregnant, there are certain consumables that should be avoided, the most obvious is alcohol.

Drinking alcohol can permanently damage a baby's intellectual and physical development. Over the counter medication should be avoided unless prescribed by your doctor. Unpasteurized milk, juice, raw fish, meat, eggs and soft cheeses such as brie should also be avoided, because they can contain harmful bacteria. Although fish is a good source of protein, a pregnant woman should avoid swordfish and shark due to high levels of mercury.

Many women are nervous about exercising during the first trimester. There has been no proven connection between exercise and miscarriage. While miscarriages do happen during the first trimester, they are most likely caused by genetic abnormalities of the embryo or a pre-existing disease.

Always consult with your doctor before you start an exercise program. For women who were inactive before pregnancy, I suggest starting with 15 minutes of exercise three times a week. The exercise program may gradually be increased to 30 minutes over time as one gets stronger.

However, if you are having a difficult time with your first trimester such as vomiting, nausea, bleeding or fatigue, I suggest consulting your doctor and wait until the second trimester to begin exercising. If you are a person that exercised before pregnancy there is no need to stop. After the first trimester, avoid exercising on your back, because the weight of the baby can constrict your blood flow. There are long term benefits to prenatal exercise, less back pain, more energy, greater self esteem and more strength during birth. The American College of Obstetricians and Gynecologists recommends moderate exercise for at least 30 minutes every day.

Staying hydrated is crucial during pregnancy, water is important in supporting the production of extra blood volume and plasma necessary for a healthy pregnancy. Additionally, this increase in blood volume is essential for nutrient transport, placenta function and temperature regulation. Other benefits include preventing cramping and Braxton hick's contractions. Pregnant women should have between 5-10 ounces of water before exercising and 5 ounces of fluids every 20 -30 minutes while exercising. Throughout the day, a pregnant woman should have at least 2 quarts of water a day. More than half of pregnant women find themselves dehydrated during some time of their pregnancy and become hospitalized due to dehydration.

### The importance of exercise during pregnancy:

1. Has been proven to lessen the overall weight gain and subcutaneous fat deposits (fat under the skin.) It also helps muscle mass and increases the metabolism, which can help prevent gestational diabetes.

2. Prepares the body for labor by increasing and maintaining endurance for labor.

3. Increases beta – endorphin levels that can lower a women's pain perception during labor.

4. Promotes retention of muscle, bone and connective tissue.

5. Reduces backaches, constipation, bloating and swelling.

## **Precautions of exercising during pregnancy:**

1. The hormones that are produced during pregnancy cause ligaments to become relaxed. This will make your joints more mobile and put you at a slightly higher risk of injuring a joint. It is important to try and avoid jerky, bouncy and high impact motions.

2. During a normal pregnancy, a woman generally gains 20-40 pounds. The majority of the extra weight is in the front of the body. This increase of anterior weight gain will shift your center of gravity and place extra stress on your pelvis

and low back. These changes affect the center of gravity and may cause one to lose their balance and fall.

3. When you are pregnant, the increase in weight gain will make your body work harder. Exercise increases the flow of oxygen and blood to the muscles that are being worked on, and takes it away from others, so don't overdo it.

Women that had a tendency to diet before they became pregnant tend to put on more weight while they are pregnant. The Journal of the American Dietetic Association performed a study of more than 1200 pregnant women and found that dieters and binge eaters gained an average of almost four – five more pounds then a person who never dieted. Remember, large fluctuations, in one's weight during pregnancy is not healthy for the baby.

#### Nutrition during pregnancy: The do's and don'ts of prenatal nutrition.

I always say, change the way that you are eating the minute you decide that you are going to try to get pregnant. Developing a new healthy life style of eating and exercise will set the stage for the health of one's baby for present and future development. We all aspire to have a healthy child that will one day grow to be a healthy adult. Research has shown us that a healthy prenatal diet or "life Style" filled with nutrient rich foods is key in preventing heart disease, Diabetes, obesity and many types of cancers.

Try to choose foods that have quality and are rich in nutrients. Yogurt, peanut butter, beef, chicken, eggs and dairy products are good sources of protein, calcium and iron. Remember to have whole grains that are filled with fiber, magnesium and zinc, instead of white bread. Orange juice is loaded with Folate, an essential vitamin that you need during pregnancy. Folate: vitamin B helps prevent neural tube defects and vitamin C aids in absorbing iron from foods. But remember, orange juice is not a substitute for a prenatal vitamin. A proper prenatal vitamin is essential during pregnancy.

It is important to understand that you are **not** eating for two. You actually need only to increase your caloric intake by 100 Calories a day in the first trimester. In the second and third trimester, one only has to increase their calories by 300 Calories a day. Remember to only eat until you are full, do not over eat or you will regret it later. Excessive weight gain during pregnancy has been shown to be associated with longer labor and hypertension. It may be enjoyable and easy to put on weight during pregnancy but it is very difficult to take it off after the baby is born. For most women, finding time to work out is already difficult, now let's throw pregnancy into the mix and it becomes more complicated. You are tired but you know that it is important to stay fit and active throughout your pregnancy. Thirty minutes of exercise every day will be benefit you and your unborn child.

Beginning a fitness routine is as easy as just getting started, I like to advise clients to do something different every day or find a friend to work out with. Always warm up before you exercise; light stretches are a great way to get the circulation flowing in the body. Start with the upper body and begin with a few head circles, look up and down and side to side. Stretch and bring your arms up toward the sky and reach. Pregnancy changes the alignment of the spine so stretching is especially important.

### **Upper body exercises:**

1. Bicep curl: hold 1-3 lb weights in your hands. Slowly raise the hand to the shoulder while bending at the elbow. Continue with this up and down motion. This should be done 10 repletion's and 2 sets.

2. Triceps push: hold 1-3 lb weights in your hands with your arms straight down to your side. Push your arms behind you at a 30 degree angle and them bend them at the elbows and bring the weights up towards your shoulders. This should be done at 10 repetitions and 2 sets.

3. Pectoralis fly: hold 1-3 lbs weights in your hands. Bring the hands to the sides and bend the elbows at 90 degrees. Your hands should be at the level of your ears. Bring your hands and elbows in so they meet in front of your face and then bring them back to the beginning position. Repeat this 10 times and do 2 sets.

4. Baby pushups: Get down on your hands and knees making sure your hands are shoulder width apart. Bend your elbows while lowering your chest to the floor. Return to the starting position and repeat this 10 times.

Exercising with machines can be very useful and safe when pregnant. When used properly, it will give you the added lumbar support that you need while your spine is changing its curvature from pregnancy. Exercise machines are also useful when training the upper body for increasing the strength to the bicep, triceps and deltoid muscles.

These muscles will be useful to carry the baby. If unsure of how certain machines work, it might be beneficial to employ a personal trainer so that he or she can show you the proper way to use the equipment in order to avoid injury.

#### Lower extremity exercises:

1. Standing squat: stand shoulder width apart, with your hands on your hips. Gradually lower your body by bending the knees. Hold this position for 2 seconds and then straighten the knees. This can be done for 10 repetitions and 2 sets.

2. Forward lunge: stand shoulder width apart. Bring your right foot directly in front of you and bend at the knee. Make sure that your knees do not move past your toes. If you do, you are at risk of hurting your knees. Bring the right foot back to the starting position and continue the same movement with your left leg. Keep alternating this movement until you have done 10 repetitions which would be 5 lunges on each leg. Do 2 sets of this. This is a great way to strengthen your gluteus, hamstring and quadriceps muscles.

3. All four leg raise: Get on your hands and knees with your hands directly underneath your shoulders. Extend your right leg back behind you and then bring it back to the starting position. Then bring your left leg back behind you and bring it back to the starting position. Repeat this 10 times on each leg.

Now that the baby has arrived, it's time to get that weight off. Remember it took 9 months to get there so it's going to take a little time to take it off. Age and genetics play a large role in determining how long it will take. The most important factor to consider is how much weight you gained during your pregnancy. I always tell moms to just start to get up and move. You should wait a minimum of 6 weeks postpartum and always consult your physician before starting an exercise program.

Weight training will start to increase your metabolism. I like to start with 3 lb dumbbells. You can start with a similar workout that you engaged in while you were pregnant. Pushing the baby in the carriage can provide a great cardiovascular workout. Abdominal musculature seems to be the question that is most often asked about. YES, you can get your abdominal strength back. Start with 10-12 repetitions of various abdominal exercises to target all the different muscles in the abdominal region.

1. Classic crunch: Lie on your back with your knees bent and your feet flat on the ground hip width apart. Put your hands behind your head. Please remember to support your head so that you do not hurt your neck. Lift your head and shoulders off the floor as you exhale and then bring your body back down to the beginning position. Remember to push your spine down and not arch your back. 2. Backwards curl: Lie on your back with your knees bent. Inhale as you roll your knees into your chest. Keep your head, upper back, shoulders and arms on the floor. Exhale as you roll your legs and feet and lower back, to the floor.

3. Bicycles: lie on your back with your knees bent to your chest. Keep your hands behind your head. Slowly extend your right leg out in front of you as you rotate your right elbow toward your left bent knee. Lift your head when you are rotating your shoulders off the floor. Continue this by switching to your left leg in extension and bring your left elbow to your right bent knee.

The most important thing to remember is to listen to your body when exercising. If you feel that you are working out to hard there is a good chance that you are. Pregnancy is not the time to start training for a triathlon. It is the time to prepare your body for holding on to one of life's most precious miracles. Remember everything you do, breathe and eat affects your unborn child.

# Dr.Marisa R. Silver



About Marisa Marisa R. Silver, Owner In The Zone Personal Fitness, Inc. 62 Bethpage Road Hicksville, NY 11801 516-216-4279 Silverspine12@aol.com www.bodybysilver.com

# <u>Chapter 5</u> Rachel Loeb

# **Rachel's Advice**

Healthy women stop exercises during pregnancy for the same reasons any other women stop: they lose their motivation, they are doing something too expensive, or they get injured. The notion of pregnant women being fragile and weak is one of the past. Women with healthy pregnancies run, train, bike, and play for as long as their body will let them. Even this Olympics we will have a pregnant athlete competing.

During the first trimester you may feel tired and unmotivated, especially if your workout friends do not know you are pregnant, and cannot understand why you might not be performing as well. Drink plenty of water, get extra sleep, eat right, and listen to your body.

In the second and third trimesters, your body produces a chemical called relaxin which relaxes ligaments in preparation for growth. Unfortunately, while relaxed ligaments are beneficial for your pregnancy, they do have the effect of making your body less stable. Instability, combined with balance changes resulting from shifted weight distribution, can make a pregnant woman more prone to injury. Preventing and quickly managing pain and injury especially in the low back, buttocks, and hips is essential for staying fit during pregnancy, as it is more challenging for the body to recover in those areas while the body is changing and preparing for a baby.

#### Preventing injuries is equally important inside and outside of the gym.

As the belly expands and weight distribution changes, it is easy to lose balance and end up rolling on the floor, starting as early as the second trimester. One good face-plant during the 24<sup>th</sup> week might be enough to keep you off your feet for the rest of your pregnancy. Your center of gravity changes when you are pregnant, so it is important to make an increased effort to reduce the chance of falling. Wearing flat, comfortable shoes that are slip resistant will significantly reduce your chances of falling. When you wear high heels, which may have felt comfortable before you were pregnant, your pelvis has to rock forward to center your weight. After you start to show, your pelvis naturally rocks forward to allow room for the baby, so it might not be able to shift any further to make the additional compensation necessary to maintain balance while wearing heels.

Carrying a 20 pound bag might also have been easy before, especially if you are accustomed to using heavy weights at the gym. But when we are not at the gym, we do not typically focus on proper form. We now must be aware that the additional weight can easily throw you off balance, and you might not be able to regain control fast enough. Limiting what you carry will keep your body balanced and your hands free to catch yourself in the event of a fall. If you already have multiple children at home, this might seem impossible, but the risk of an injury where you can no longer lift anything ought to be sufficient encouragement to put items in a stroller and push them around or make the kids carry their own stuff.

You will almost certainly be waking up in the middle of the night to pee, even if you normally do not, and you will not be happy if a fall on the way to the bathroom prevents you from exercising that week. Light your way to the bathroom and make sure there is always a clear path.

#### Dressing for the gym

As your body changes, you will need workout clothes that fit properly. Your feet might be a size bigger now, and you might need more supportive shoes, especially if you are accustomed to wearing minimalist shoes. Even your old sports bra might now be too small. I once treated a pregnant patient who came into my office experiencing pain between her shoulder blades that was mild in the morning, but worsened throughout the day. I treated her for two weeks, and each time she saw me, she reported immediate relief in the office, only to find that her pain would return the following day. As her body changed with pregnancy, she had been adjusting her clothing size, but had never thought to adjust her bra size. Once we discussed this, I recommended she buy a larger bra, and within a couple days her pain disappeared for good.

Wearing a bra that is too tight can prevent the ribs from fully expanding, impairing the ability to take full breaths. A tight bra also has the tendency to disproportionately distribute a woman's weight towards the front of her body. Imagine a little old lady with a hump back. While certainly less extreme, the symptoms caused by a tight bra are of the same nature, putting additional strain on the muscles of the upper back and allowing the joints to lock in an unnatural position, making it difficult to stand up straight.

Because the muscles' job is to move joints, when joints are restricted from an overly tight bra the muscles strain to perform their task, resulting in spasms and pain. In addition to the potential for back pain, a bra that is too tight can also prevent the lymph nodes in the armpit from getting healthy blood flow and nutrients, which some experts believe to be linked to a variety of diseases including breast cancer.

### Pregnancy and your posture

There is a natural curved pattern in the spine that every human should have. The low back and neck form a curve one direction called lordosis, while the upper back curves the opposite way called kyphosis. As your belly grows, it is natural to have the lordosis in your low back increase as the weight of your stomach pulls it forward. The added weight can also make the curvature in your upper back increase, as the weight of your chest pulls forward and down.

This can cause pain for several reasons. It can make the joints in your low back (called facets) jam together causing pain whenever you lean backwards. Preventing this pain should be done be keeping both the upper back and the hip flexors moving properly.

This best exercise for your full spine is referred to as *cat camel*. To perform cat camel, you will get on the ground on your hands and knees, and alternate between two positions. In the first position you will tuck in your chin and look down stretching the back of your neck, extending your upper back as high as you can and tucking your pelvis under.

For the second position, look up at the wall in front of you, and drop your back downward sticking your buttocks out. Instead of your low back, try to focus on dropping your upper back as low as you can, since the weight of your stomach will already be pulling your low back down. Alternate between these two positions slowly, holding each pose for about ten seconds.

The best upper back mobility exercise known as *wall angels*. For wall angels, stand about a foot away from the wall with your back to the wall and your feet shoulder width apart. Bend your knees slightly for comfort, but this is not a quad exercise, so try not to squat. Put your pelvis against the wall first. While keeping your pelvis against the wall, push your low back, upper back, and head into the wall while looking straight forward, not up at the ceiling.

You might find it hard to have your full spine on the wall because your low back wants to maintain its curve. If this happens, try tucking your pelvis under you

more to help get your low back to the wall. Once you have mastered that position, bend your elbows and rotate your shoulders so you are putting the back of your hands on the wall roughly even with the height of your ears. This is not a shoulder mobility exercise, so if this hurts your shoulders, think of pulling your chest up and relax your arms.

When you find a comfortable position for your shoulders, move your hands up and down on the wall in about a six inch range. Repeat this motion slowly for thirty to sixty seconds. This exercise can also be done by laying on your back with your knees bent and feet flat on the floor. In this position, the same rules apply for pushing your low back into the floor. Your arms should move the same way for thirty to sixty seconds.

Now for a good *hip flexor stretch*: Kneel down on one knee with the other foot in front, and the knee bent in a ninety degree angle the whole time. Now tuck your pelvis underneath itself, focusing on pulling it forward. You should feel a stretch in the front hip of the knee that is on the ground. Hold this position for twenty to thirty seconds, and then slowly rock your hips back and forth for another twenty to thirty seconds. This will stretch the hip flexors on all planes.

# **Proper lifting**

Now that you have adequately stretched and mobilized the key areas in your body that may prevent you from lifting properly, it is important to have good lifting technique, whether setting up the baby's room at home, or working out at the gym. You have probably heard people say "Lift from your knees, not your back." The concept of flexing at your knees instead of your back when performing a lift is good, but when applied improperly, can be a good way to blow out your knees. Proper lifting technique is actually centered on the motion in the hips. As you are lifting, be sure not to lean back, as this increases the curvature in your low back, and can cause injury. Once you have lifted the object to a comfortable height, carry as close to your body as you can.

# Getting up

Getting up can become increasingly more challenging as you get bigger. When you are in a chair, move yourself to the edge of the seat and use your hands to push yourself off. Leaning back and grabbing your back only puts more stress on it. When you are lying in bed, try rolling on your side, and then using your arms again to push yourself off. Then get out of bed the same way you get out of the chair.

#### **Talking to your doctor**

Remember to keep your OB, chiropractor, physical therapist, and massage therapist informed of your pregnancy and the activity you are doing. Be sure to find doctors who you feel comfortable with, and who will respect the opinions of your other care providers. I always tell patients that the OB is taking care of the baby and the pregnancy, and as a chiropractor, I am taking of the musculoskeletal system.

He or she might have one reason to not do a certain exercise and a chiropractor might point out other exercises that should be avoided. By keeping all of your health care providers well informed, you can guarantee the best odds of maintaining a safe workout routine that best suits your body.

The understanding of exercise during pregnancy has changed significantly over the last few decades. If you have a doctor who does not allow *any* pregnant patients to exercise, try getting a second opinion from a different doctor who will carefully examine your case specifically, and may help you make better decisions about what type of activities you can do to keep you moving safely. Also, be very clear of what your exercise routine entails. Many doctors may not be familiar with certain sports.

Rock climbing for example, may be perfectly safe during the earlier months of pregnancy, provided that you use proper equipment, and climb both up and down, ensuring that no additional strain is placed on the belly by the harness. On the other hand, bouldering or lead climbing, two forms of rock climbing that can involve big falls, should not be done at any point during pregnancy.

#### Should I see a chiropractor?

Professional athletes of every sport see sports chiropractors for pain management, injury prevention, and optimal performance. There are also chiropractors that specialize in pregnancy management to reduce discomfort throughout the pregnancy and prepare the body for labor and delivery. Research shows that seeing a chiropractor can reduce labor by up to four hours. If your baby is breach, a chiropractor may be able to help relax the pelvic muscles, allowing the baby to migrate into its natural position. If you do choose to see a chiropractor while trying to stay fit during pregnancy, find one who works with athletes as well as pregnant patients, and most importantly, makes you feel comfortable.
## **Rachel Loeb, DC**



#### <u>About Rachel</u>

Dr. Rachel Loeb, Chiropractic Physician, grew up in Clarksville, Maryland. She received a Bachelors of Science from Lehigh University before getting her Doctor of Chiropractic from Logan College of Chiropractic in 2010. She now lives in St.

Louis, MO with her husband, Dan, and dog, Einstein. She has been interested in the human body since she was a competitive dancer as a child. At a very young age she saw the benefits of chiropractic in pain reduction and injury prevention.

Dr. Rachel emphasizes proper biomechanics and motion by joints and muscle through the use of adjusting, myofascial release, rehabilitation, and education about ergonomics and nutrition without the use of drugs and surgery to reduce pain, prevent injuries and arthritis, and promote general health and wellness. Besides having her private practice where she treats many pregnant patients, Dr. Rachel is also the company chiropractor for Big Muddy Dance Company, the professional jazz team of St.

Louis.

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7800 Clayton Rd, St. Louis, MO 63117 314-644-2081

# <u>Chapter 6</u> Dori Watters

#### Dori's Advice

"Staying active while pregnant" can have many different meanings to many different women. Until recently becoming pregnant meant you had to leave your training regimen behind and embark on one of the most difficult endurance events in life out of shape and unprepared physically.

Some women stop exercising all together and others "take it easy" by only walking or doing yoga. All of which are completely fine unless you've been an athlete your entire life and fitness and training is not something you just do, but something that is an integral part of your entire being. So, I'm here to tell you that it can be done.

You can continue to train at a high level throughout your entire pregnancy; you just have to be prepared to modify some things. That being said, you should always talk with your doctor prior to doing, well basically anything, while pregnant. BUT... strongly discuss with them what you should expect well expecting as far as exercise. Because fitness levels are vastly different for everyone and no one program will suit every one. That being said, I have three rules of thumb when it comes to exercise while pregnant.

1. Everything in moderation: My high school Latin teacher uttered this continuously and to this day holds true in everything I pursue. But, especially while working out during a pregnancy. Don't push your limits to extremes. That may mean taking 2-3 rest days between long runs or exchanging one of your running workouts for a swimming workout.

2. Use good form: My husband owns a phenomenal outdoor fitness program called Motor City Bootcamp, hence the bootcamp while pregnant. But, he always pushes good form. Most people get hurt when they are not aware of personal body form and alignment.

3. Listen to your body: You and only you know how you feel, so be aware of it. If you can, get in the best shape of your life before getting pregnant. The better shape you're in before getting pregnant the easier it is to understand your body

and therefore know your limitations. By no means, am I saying that anyone else should prescribe to my pregnancy fitness regimen, but rather you should navigate your own fitness protocol.

Now training while pregnant has a whole different set of obstacles and they change during the different trimesters. As some advice, I would warn anyone working out while pregnant, don't expect to feel like you did while not pregnant. Everything is going to take a little more effort and it will always have a little bit of an uncomfortable feeling because there is just so much going on with your body. But, most of the uncomfortable things can be controlled or will eventually pass with a little patience. For me, I learned to break my training while pregnant into three phases, similar to how I would train for an endurance event such as a triathlon or marathon.

For the first 3 months, probably the two most pressing issues that most women experience are extreme fatigue and morning sickness (which I would like to rename all day/night sickness because it seems much more accurate). The exhaustion was unbelievable therefore the biggest obstacle was just getting my running shoes on and laced up. Just the thought of tying the laces was exhausting let alone going for a run.

But, my athletic side usually won out and once I got myself out the door and walking toward the area where I was going to work out I felt 100% better. And much to my surprise, each workout left me much more energized and able to handle my full-time career and taking care of my family.

The nice thing about working out in the first trimester is that you're body hasn't changed much, so you can move similar to what you've been used to. The key points that my doctor told me to be careful of were not to get overheated and make sure I was staying hydrated. I would recommend investing in a fuel belt to have water with you at all times if you are going to continue to run and be careful what time of the day you will be working out, especially if you live in a warm area.

So, if the exhaustion doesn't sway you to stay on the couch, the nausea usually does. But, I would really urge women to push through the nausea because with all of my pregnancies when I got moving I felt a little like my "old self" again! The first 15-20minutes of my workouts were rough because I had to fight off the nausea, vomiting and dry heaves, but once I broke a sweat I felt amazing.

That hour after working out was the only time of the day that I could eat and drink without the nausea and vomiting. Be careful to monitor your fluid intake during those workouts as well as the types of fluids that you are drinking. Make sure it is not just water, but something with electrolytes as well. You may also want to incorporate more rest days into your training regimen, which is important in any training program, not just with pregnancy.

The second trimester is when many women start to look pregnant which leads to feeling awkward or off balance because the "prego" belly seems to pop up out of nowhere. Now that the nausea and vomiting have subsided, other "uncomfortable" obstacles have popped up in their place. The first and most pressing issue is the intense feeling of urination that is felt while running or working out. I found that it goes away after you've run for a few miles, but it can be really uncomfortable up to that point.

The other thing I experienced starting in the 2<sup>nd</sup> trimester was an unbearable pain in my left inner thigh/pelvic area. I've heard some people refer to it as Pelvic Girdle Pain and after talking with many pregnant women I found that a lot of these women experienced this pain and they let it sideline them from working out.

All I know is that it can be excruciating, but I found it to be present regardless of the activities I was doing. In fact it was the worst during my first pregnancy and I didn't run as much. I found with the later pregnancies that intense stretching after running or working out, massage therapy once a month and seeing a chiropractor kept that pain to a minimum.

I also think that a strong focus should be held on strength training. Don't worry too much about the amount of weight that you're lifting; just monitoring that you have correct form. Making sure that all the repetitions are performed with correct form decreases the chance of injury.

Another focus should be on core strength. A lot of people stop doing "crunches" while pregnant and I can understand that. But, I still feel that core strength is essential for delivery and recovery. There are plenty of modifications that can be applied to abdominal exercises. Things such as the "plank" have multiple variations and crunches off of a stability ball are always great. At least three times a week I would conclude my workouts with this ab workout.

Start with a V-sit for 30 seconds and then add a twist for 15 seconds per side where you rotate your right elbow so it almost touches the ground and then

switch sides. Flip over into a table top pose with hands and knees on the ground. Lift your right arm and left leg extending them straight out and hold for 5 seconds and then switch arms/legs. Repeat this for a total of 6 repetitions (3 per side). Do the entire routine 3 times.

I contribute my speedy recovering from all three of my C-sections to good core and upper body strength. After all of the C-sections I was home within 2 days of the operation and I was out walking within a week of the surgery. I ran a 6 hour adventure race 6 weeks after the birth of my first son and half-marathons just 7 weeks after giving birth to both of my sons. There is no way I would have bounced back so quickly if I had let my strength slip away for nine months. I don't mean to imply it was easy, because it most certainly was not. But, it was most certainly doable!

For me, the third trimester of pregnancy is when the aches and pains really start to set in. It's a constant discomfort that requires attention every day. Sleeping comfortably is a challenge at this point and because I've been told to sleep on my left side as much as possible, I often woke up in the middle of the night with aching hip pain. My lower back was in a constant knot and sciatica pain would radiate down my legs when I would sit down too long. Working out helped diminish and ease that pain significantly.

With all my pregnancies I ran up to the day I delivered, in fact I participated in a bootcamp class the morning of all three C-sections. I ran much slower at the end and had to take frequent walking breaks, but I was still able to get 4-6 mile runs in. During my last pregnancy I ran a ½ marathon at 36 weeks. But, if the impact of running was too much stress on my already aching body, I would switch to something like a swimming workout. Other routines that increased my cardio output, but decreased the high impact aspect of running was boxing workouts with a trainer by hitting focus mitts and/or walking stairs repeats.

I also found my body needed more rest days between workouts, so again that theme of "listen to your body" comes into play. On those rest days I also enlisted the care of a chiropractor and a massage therapist. It's amazing how much of the pregnancy aches and pains are related to muscular issues.

Maintaining a high level of fitness, I feel, was instrumental in having, relatively easy sort of speak, pregnancies but also played a huge role in my ability to recover quickly from both previous C-sections. I only had a 2 night hospital stay, was back to work after 3 weeks and ran a ½ marathon 7 weeks after all of the deliveries. High intensity exercising can be immensely beneficial mentally,

emotionally and physically throughout the pregnancy and during the recovery period after.

One of my go to workouts during pregnancy was bootcamp class. This workout was done in a parking deck, but can be done anywhere there are stairs or hills.

**Warm Up:** jog or walk up 3 parking deck ramps or a large hill, 50 mountain climbers with hands inclined (like on a step or curb), walk back down ramps and 50 mountain climbers

Stretch

#### Workout:

1. Walk /Run Stairwell repeats (Start on ground floor and run to top floor, run back to ground floor, then run up one less floor and back to ground floor, do this until you run just one floor)

2. Push-up/ Down-up ladder Even Numbers (10 incline push-ups, 10 down-ups (done with hands elevated on a step or curb if it's uncomfortable to place them on the ground), continue with 8 push-ups, 8 down ups, 6-4-2)

3. Walk/ Run Stairwell Repeats

4. Push-up *Down-up Ladder Odd Numbers* (9 incline push-ups9 down-ups, 7-5-3-1)

5. Walk/Run Stairwell Repeats

6. 20 Triceps Dips (off of curb), 20 squats, 20 Walking lounges-3 sets

7. 1 min forearm plank with 1 min rest - 3 sets

Stretch

## <u>Dori Watters</u>



#### <u>About Dori</u>

Dori Watters owns Watters Performance and Motor City Bootcamp, with her husband Jeff, in Detroit. She's also an Orthodontist that owns her own practice in Lake Orion, MI and coaches Motor City Bootcamp Endurance Racing.

www.jeffwatters.com

www.jeffwatters.wordpress.com

# About the Author Andy Charalambous



Andy Charalambous was born in London, England and has worked in a number of well-known health clubs and gyms as a fitness instructor, personal trainer and masseur.

He is not your average trainer! He has taken on fat loss experiments where he has gained weight in order to document how he will eventually lose the weight and fat. You can follow a few of his fat loss experiments by going to his website - <u>www.fitscribbler.com</u> - where you will find photos and images of his body transformations.

Andy also writes and creates health and fitness books and at present he has a collection of books which focus on particular areas of women's' wellbeing as well as a number of muscle building books for men. You can find these on his website too.

When he is not working he trains on the beach, cycles, swims, reads, rollerblades and does whatever he can to keep any negative thoughts at bay.

"We have more control over our lives than we think. The sooner we realize this the better the chances are of reaching our goals and fulfilling our dreams" - Andy.

# Check out Andy's author website for news on newly released books and special offers:

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