

## Exercise during Pregnancy

For years it was believed that pregnant women should spend nine months prone on the couch, resting comfortably. Doctors feared that the jarring motion of aerobics or running could damage the fetus, and prescribed rest for even the most intense of professional athletes. Fortunately, the tide has turned. Pioneers such as James Clapp, M.D. and Elizabeth Noble have proven through their work that exercising actually makes for an easier pregnancy and delivery. In fact, Dr. Clapp found through a study of 500 pregnant women that those who exercised delivered a healthier baby with a stronger fetal heart rate. Even more compelling is the fact that of the women who exercised, time spent in labor was shortened by about a third, with 65% of the women delivering in four hours or less. And when you're in labor, every extra hour seems like an eternity.



The reality is that women have been active throughout pregnancy for centuries; there is no such thing as maternity leave (unfortunately) in most of the world. Exercising also seems to ease some common ailments, such as lower back pain and fatigue. However, there are some basic guidelines that should be followed:

Start slowly. Even if you never exercised regularly before, a program can be undertaken safely. If you have been following a regular exercise regime, there's no reason you shouldn't be able to continue on the same level for the first trimester. The important thing is to listen to your body- if it feels like too much, take it down a notch. This is not the time to break your previous land speed record. Particularly if you suffer from morning sickness, be aware of your limits.

Monitor your heart rate and breathing. As a general rule, your heart rate should not exceed 140 beats/minute. The fetal heart rate is tied to your own; if your heart is racing, your baby's is too. A heart rate monitor, at around a hundred dollars, is a worthwhile investment. Most feature an alarm that sounds if you exceed the safe target range. If you feel breathless, which is common during the first trimester, slow down or take a break. The first three months are an adjustment period, when your blood volume is initially too low to accommodate both you and a growing fetus- this can result in breathlessness and faintness. Adjust your exercise levels accordingly.

Avoid exercising at extreme altitude or in hot, humid environments. Now that summer is here, this is an especially important rule of thumb. Your body temperature affects the baby, and it is critical that neither of you becomes overheated. Drink plenty of water.

As the pregnancy progresses, reduce the intensity level. This tends to happen naturally.

Remember that even if you are exercising less intensely, the actual level of what you are doing is more difficult, due to the added weight of the baby.

Be careful not to over-stretch. Early in pregnancy, a hormone called relaxin fills your system. This hormone induces hyper-flexibility in the joints and musculature, which allows for the expansion of the uterus and the repositioning of the pelvic floor. It is common for women to strain muscles and ligaments during pregnancy as a result of this new flexibility. It is still important to stretch after exercising- just know your limits and try not to exceed them.

In the last trimester, avoid ballistic movements, such as jumping or running. The exercise community is divided on this one. My personal experience with clients has led me to believe that these motions can strain the pelvic floor, which is already supporting more weight than ever before. There are plenty of exercises that can be done without bouncing motions. I always believe that it's better to be on the safe side.

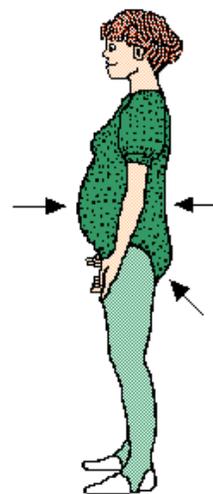
Do Kegel exercises religiously. The pelvic floor supports the bladder, uterus, and intestines. The added weight of the uterus during pregnancy can stretch out that floor, causing either the intestines or bladder to drop down. This is one of the reasons that so many elderly women suffer from incontinence. Prevention is the best medicine. Kegels involve contracting and releasing the PF muscles, similarly to stopping the flow of urination. Tighten and relax the muscle quickly several times a day.

Deciding which activities are best for you is highly individual. In the first trimester, almost any form of exercise (outside of contact sports and skiing) can be undertaken safely. During the later trimesters, running and cycling tend to become uncomfortable. Most of the women that I trained switched from these sports to swimming, hiking, water aerobics, and cross-country skiing. Every woman that I worked with lifted weights right up to the end. In my experience, the postpartum recovery period was dramatically easier for the women who exercised. I have one thirty-seven year old client who only gained twenty-two pounds during her pregnancy. Just five weeks after delivering a beautiful, healthy baby boy, she had already lost fifteen pounds and felt great!

Pregnancy causes so many physical and lifestyle adaptations, it can be overwhelming. The important thing is to be in tune with your body, and to focus on bringing new life into the world.

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**STOP** exercising and consult your physician if you experience any of the following symptoms during exercise:

\*bleeding, \* cramping, \*faintness, \*elevated blood pressure, \*dizziness, \*severe joint pain

Pregnant women **should NOT** exercise to exhaustion--stop when you are fatigued.

Listen to your body. Exercise should not be painful. Be alert to medical conditions which may indicate the need to change activities or stop exercising. Some examples are:

\* early effacement or dilation, \* premature labor, \*multiple fetuses.

Expect some discomfort, particularly in the third trimester. Learn all you can about exercise during pregnancy so you know how much discomfort is ordinary and what might be cause for concern..

Exercise regularly and consistently. You should exercise at least three times per week. If you exercise more frequently, alternate hard and easy workouts.

Do not exercise vigorously in hot, humid weather. Do not exercise at all during an illness with fever. A core body temperature that remains elevated for prolonged periods can impair development of the fetus, particularly during the first six *weeks* of pregnancy.

During pregnancy, all the connective tissue in the body becomes more lax than normal. To help prevent injury, avoid deep flexion and extension of the joints and avoid activities that require jumping or jarring motions or rapid changes in direction. If an activity becomes uncomfortable due to joint instability, modify or discontinue the activity.

Drink plenty of fluids, especially water, before and after exercise to avoid becoming dehydrated. If your exercise session is longer than 15 minutes, interrupt your workout to drink additional liquids. Drink even if you are not thirsty, as thirst lags behind the body's need for fluids.

Rise gradually from the floor to avoid a sudden, rapid decrease in blood pressure which may result in a momentary blackout. Continue walking after rising to assist return blood flow to the heart.

Exercise at a comfortable intensity, and be prepared to modify exercise intensity as your pregnancy progresses. You can gauge exercise intensity by using the talk test--you should be able to talk while exercising. Consult your physician or a qualified exercise instructor to determine your specific target heart rate.

Measure your heart rate 2-3 times during peak activity to make sure your are exercising at the proper intensity. Avoid an anaerobic or breathless pace during exercise and avoid competitive events.

Your core temperature should not exceed 100.4 degrees--do not become overheated. If you feel you are becoming too hot, decrease your exercise intensity. Avoid exercising outdoors during the hottest part of the day.

Limit strenuous activities to a duration that does not cause exhaustion. If you wish to exercise for longer time periods, alternate light and vigorous exercise.

Avoid exercises that use the Valsalva maneuver (forced exhalation against closed mouth and nostrils; for example, lifting weights while holding your breath). This can lead to an increase in blood pressure and can interfere with return blood flow to the heart.

After your fourth month is completed, discontinue prolonged exercise done lying on your back since the enlarging uterus can interfere with return of blood to the heart. If dizziness, shortness of breath, nausea, or tingling of the lower limbs occurs while exercising on your back, roll onto your left side and remain in that position until the discomfort passes. Subsequent exercise should be modified to avoid the back-lying position or to remain on the back for brief periods of time interspersed with exercise done in other positions. Experiment with exercise done for 1 minute in the back-lying position interspersed with 2-3 minutes of exercise done in other positions (i.e. side-lying or sitting).

Exercises to strengthen the muscles most stressed by pregnancy--abdominal, low back and pelvic floor--can be performed daily.

Check abdominal muscles weekly after 20 weeks gestation to determine if the rectus abdominus muscle has separated. This condition, known as diastasis recti, can occur during pregnancy, though it often occurs during delivery.

To check for diastasis recti, lie on your back with knees bent and feet flat on the floor. Place your fingertips in the center of the abdomen just above the navel. Exhale and lift your head off the floor as you press your low back into the floor. Gently press the fingertips into the gap between the two sides of the muscle.

A 1-2 finger-width gap is considered normal. A gap of more than 2 finger widths requires corrective exercise to prevent further muscle trauma (see "Exercise Examples" section).

Increased Braxton-Hicks contractions are normal late in pregnancy. However, if these contractions increase markedly during or after exercise you should:

- \* decrease exercise intensity, \* change posture, \* try a different activity

If Braxton-Hicks contractions continue regularly for more than 24 hours after exercise, notify your physician.

Follow your exercise session with a 5-15 minute cool-down consisting of slow biking or walking. Cool down until your heart rate is less than 100 beats per minute (16 beats in 10 seconds).

Your ability to exercise may decrease during the first three months of pregnancy as well as the last few weeks before delivery. You can continue to exercise until delivery barring medical problems.

A general guideline for exercise during pregnancy--consider your pre-pregnancy fitness

**Activities that can be started during pregnancy, even by those not currently participating in an exercise program are:**

- \* low impact aerobics
- \* cycling/stationary biking
- \* golf
- \* rowing machine
- \* stairmaster/stair climbing
- \* swimming
- \* walking
- \* water aerobics
- \* tennis/racquetball (only if you are in good physical condition)
- \* weight training

**Activities that can be continued during pregnancy by those currently participating are:**

- \* backpacking (only if in good physical condition)
- \* ballet (not professionally)
- \* basketball (non-competitive)
- \* body building (non-competitive; only for experienced)
- \* cross country skiing (only if in good physical condition)
- \* running (only if in good physical condition; non-competitive)
- \* softball (non-competitive)
- \* volleyball (non-competitive)

**The following activities should be avoided during pregnancy due to increased risk to the mother and/or baby.**

- \*competitive sports
- \*hang gliding
- \*horseback riding

- \*inversion
- \*scuba diving
- \*sky diving
- \*snow skiing
- \*springboard diving
- \*water skiing

**Contraindications to Exercise During Pregnancy**

Most women can continue to exercise throughout their pregnancies. However, specific risk factors for the mother and/or baby may preclude exercise during pregnancy. Women with the following conditions should not exercise during pregnancy:

- \*pregnancy-induced hypertension (high blood pressure)
- \*preterm rupture of membranes
- \*preterm labor during the prior or current pregnancy or both
- \*incompetent cervix/cerclage
- \*persistent second- or third-trimester bleeding
- \*intrauterine growth retardation

Women with the following conditions require special evaluation and supervision prior to and during exercise:

- \*chronic hypertension (high blood pressure)
- \*active thyroid, heart, vascular, metabolic (i.e. diabetes), or lung disease

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<http://www.pvc.maricopa.edu/fitness/preg/contraindications.html>