



CU SPORTS MEDICINE Exercise during Pregnancy

From the moment you find out you're pregnant until the birth of your baby, exciting and overwhelming changes characterize your life and body. Many women worry about their ability to maintain an active lifestyle during pregnancy or hope to prevent excessive weight gain. Other women consider beginning an exercise program as part of an effort to make better lifestyle choices and deliver a healthy baby.

What do we know about the safety of exercise during pregnancy?

Every woman and every pregnancy is completely different. That's why it's critical to work with your obstetrician to decide on your activity plan. Certain medical conditions put you at risk for injuring either yourself or your baby. **Listen to your doctor.** Pregnancy is NOT the time to begin an energetic exercise routine, especially if you've been a couch potato! However, a healthy woman can begin or maintain a program of regular *moderate* exercise during her pregnancy. If you're an athlete, athletic performance doesn't seem to be affected during the first 2 to 3 months of pregnancy. You may be able to continue training well into your pregnancy (depending on your sport). Work with your doctor to modify your exercise intensity and training schedule.

There are several studies which show that fit and active women can exercise vigorously during pregnancy and deliver healthy babies. Women who exercise regularly report feeling better during their pregnancy than sedentary women. They also may gain less fat weight.

Guidelines for Exercise

Cardiovascular activities that are low-impact or non-weight bearing (swimming, walking, and cycling) are more likely to be carried on throughout your entire pregnancy. Water aerobics or swimming not only decrease joint stress but can reduce fluid retention. Other forms of regular aerobic exercise might include aerobics classes (particularly low impact), stair-stepping, jogging, hiking, elliptical trainers, and cross-country skiing.

How hard?

Formulas for target heart rate are probably somewhat off due to cardiovascular and blood flow changes during pregnancy. There is some evidence that vigorous intense exercise (above 150 beats per minute) causes bursts of rapid heart beats in the fetus. This may indicate stress. ***It's probably best to exercise at a moderate level based on your own feelings of exertion.*** However human studies have not shown bad effects on mother or baby when exercising at vigorous intensities or using traditional heart rate ranges. Standard recommended intensities are 60 to 75% of maximum heart rate for unfit women and 70 to 85% for women that exercise regularly. How hard you feel you are exercising has been shown to be a

(OVER)



more reliable indicator of work intensity during pregnancy than heart rate. Listen to your body! Pregnant women often naturally lower exercise intensity during late pregnancy. Smart move, ladies!

How often?

Avoid the “weekend warrior” syndrome. Ideally, a pregnant woman should do cardiovascular exercise at least 3 to 4 days per week. If you exercise more frequently, consider a variety of activities and drink plenty of fluids. Doing a variety of activities will help reduce overuse injuries.

How long?

Short aerobic exercise intervals (15 to 20 minutes at a time) may help prevent heat stress to you or your baby. However, there is no evidence to suggest that a more typical 30 to 60 minute workout is harmful.

Strength Training

Strong muscles will prepare you for the lifting required when your new baby arrives. (This includes all the “stuff” you’ll also be lugging around such as car seat, stroller, and diaper bag.) Depending upon the position you intend to use during your delivery, you’ll need good strength in your “squatting” muscles. Low back pain, a common complaint of pregnant women, can be helped by specific strengthening and flexibility exercises. A physical therapist who understands your body’s changes during pregnancy is the best person to suggest specific exercises.

Correct posture, breathing and lifting technique are very important.

Avoid straining or holding your breath during challenging lifts. During the latter part of your pregnancy when your balance isn’t as good, it is probably smarter to use exercise machines rather than free weights. Not much information is available about heavy lifting during pregnancy. It is probably best to avoid heavy loads and use a standard conditioning approach. This would be 8 to 12 reps, for 1 to 3 sets, to momentary muscular fatigue. This should be done 2 to 3 times per week.

The American College of Obstetrics and Gynecology recommends that women avoid exercise while lying on their backs after the first trimester. This position can decrease blood flow to the baby. For example, pelvic tilt exercises should be performed in the side-lying, sitting, standing, or “all fours” positions. Prolonged, motionless standing should also be avoided.

Do you lose urine when sneezing, laughing, coughing, jumping, or exercising?
Pelvic floor exercises help prevent stress incontinence (involuntary loss of urine) during pregnancy and in preparation for postpartum recovery. A physical therapist or childbirth educator can provide expert instruction.

Balance and Coordination

Hormone changes after 28 to 30 weeks loosen your joints and make you more susceptible to injury. So be careful if you play tennis, squash, ski, dance, or participate in other activities requiring agility or balance. Increased body size, altered center of gravity, and changing posture will also begin to slow your movements, affect your balance, change your body mechanics and make you work harder. Use common sense! Consider cross-training or adopt some alternative, safer exercise activities during the latter stages of your pregnancy.

Other Items to Consider

You should avoid sports activities that challenge your ability to get oxygen. These would be such things as mountain climbing or scuba diving. Snorkeling is fine during pregnancy, but deep sea diving may cause decompression problems in the fetus and should not be done. A healthy, pregnant woman should not exceed an altitude of 8,000 ft during the first 4 to 5 days of short-term altitude exposure. Exercise activities such as climbing or cross-country skiing should be done at even lower altitudes. After 20 weeks, sports that carry the risk of falls or abdominal trauma may also be a problem. For example, contact sports like soccer and basketball, gymnastics, skiing, hang gliding, horseback riding and vigorous racquet sports may cause premature labor or injuries. This is the time to rely on other forms of exercise.

General Tips

- If you experience pain, bleeding, or your baby stops moving, **stop exercise and immediately check with your obstetrician.**
- During the first trimester, excessive fatigue and low energy levels may increase your risk for injury. Make sure you get adequate sleep and that your food intake meets your body's needs for increased calories, vitamins, and minerals. (During the first trimester, your calorie needs are the same as pre-pregnancy. However calorie needs increase during the 2nd and 3rd trimesters.)
- In order to meet the energy and nutrient needs of you and your baby during pregnancy you must eat an additional 300 calories and 10 grams of protein per day. (If you are pregnant with twins you should eat an additional 600 calories and 20 grams of protein.)
Pregnancy is not the time to think about losing weight. Women who are at normal weights should gain between 25 to 35 lbs during pregnancy. Weight gain should be 2 to 4 lbs by the first trimester, and then about 1 pound per week.
- A gradual cool down after vigorous endurance activity helps maintain adequate blood flow to your baby. Take 5 to 10 minutes at the end of your exercise session to perform light cardiovascular activity.
- Make SURE you are getting enough fluids. This is necessary for the increased blood volume and amniotic fluid your body is making! Don't wait to feel thirsty. Increase fluid intake to 2 to 3 quarts per day. Drink plenty of extra fluids before, during, and after an exercise session. Avoid drinking beverages containing caffeine and alcohol. These dehydrate you and can be dangerous to the baby's development.
- Routine supplements with prenatal vitamin and mineral supplements have been common in the past. However, the National Academy of Sciences now recommends only *iron* supplements (30 mg) for normal pregnancy. However active women and athletes need to consider the issue of supplementation with their physician or dietitian. Other supplements of key nutrients you may require are *calcium and folate*. Make sure you're taking in 1000 mgs of calcium and 600 micrograms (mcgs) of folate per day. Folate helps prevent neural tube birth defects for all women of childbearing years as well as during pregnancy.
- Supportive bras and undergarments to support your breasts and tummy during exercise are now available. If you can't find these under garments at a local department store, athletic store, or "pregnant mom shop", try Title 9 Sports™ catalog at (800) 609-0092.



Reasons to Discontinue Exercise and Seek Medical Advice during Pregnancy

The following guidelines come from guidelines published by the American College of Sports Medicine. Talk with your physician monitoring your pregnancy if you notice any of these symptoms:

- Any signs of bloody discharge from the vagina.
- Any “gush” of fluid from the vagina (premature rupture of membranes).
- Sudden swelling of the ankles, hands, or face.
- Severe headaches that won’t go away, visual changes, or an unexplained spell of faintness or dizziness.
- Swelling, pain, and redness in the calf of one leg (phlebitis).
- A pulse rate or blood pressure that does not decrease after you have finished exercising.
- Excessive fatigue, palpitations, or chest pain.
- Persistent contractions (more than 6 to 8 an hour) which may suggest that you have started premature labor.
- Unexplained abdominal pain.
- Not gaining enough weight (if you have not gained at least 2 lbs each month during your last two trimesters).