

## Exercise Before and During Pregnancy

In general, exercise is a very beneficial activity. Aerobic exercise quickens the heart rate and breathing. Twenty minutes of aerobic exercise three times weekly reduces the incidence of heart disease and high blood pressure. It produces HDL, high density lipoproteins, which bind blood cholesterol, and leads to the production of endorphins. Exercise also helps prevent osteoporosis, since weight-bearing stress and movement encourages calcium and other minerals to deposit in the bones.

Intensive exercise can produce significant alterations in menstrual function. Some young women or girls may experience the delayed onset of menstruation. It may also cause amenorrhea or a shortened luteal phase. Physical and emotional stress, poor diet, altered hormonal secretion during exercise, weight loss and decreased percentage of body fat are possible contributing factors to persistently low levels of endogenous estrogen which can be associated with decreased bone mineral density. Common sense dictates that pregnant women should stop exercising when fatigued and not exercise to exhaustion.

Although there has been much rumored concern regarding the possible adverse effects of maternal exercise on the fetus, it appears that any temporary reduction in oxygen is well tolerated by the fetus. Maternal lactic acid levels do rise as the result of muscular fatigue and may cause the baby to be temporarily more active (therefore it is not such a good idea to exercise just before bedtime).

The American College of Obstetricians and Gynecologists has offered the following guidelines for exercise in pregnancy:

- \*After the first trimester, avoid any type of exercise that requires lying on the back. Lying on the back causes the uterus to occlude the inferior vena cava and laterally displaces the subrenal aorta. This results in the heart pumping less blood in most pregnant women, which can lead to reduced blood flow to the fetus. This can also cause supine hypotension (in 10% of women), shortness of breath or faintness in the mother as pregnancy advances.
- \*Avoid long periods of sitting still.
- \*Be prepared for body changes that may throw balance off, especially during the last trimester.
- \*Any exercise which involves the potential for even mild abdominal trauma should be avoided.
- \*Exercises which include the Valsalva maneuver (holding the breath and bearing down) should be avoided.
- \*Caloric intake must be adequate to meet the needs of the exercise as well as the pregnancy.
- \*Drink plenty of water while exercising and stop before becoming overheated. Pay attention to increasing salt intake appropriately to compensate for sodium loss via sweating.