
Exercise During Pregnancy?



► Is it safe to exercise during pregnancy?

While in the past, any form of exercise during pregnancy was considered taboo, we now know that most forms of exercise during pregnancy are safe and promote health and well-being. In January 2002, the American College of Obstetrics and Gynecology (ACOG) published updated guidelines regarding exercise during pregnancy and the postnatal period.¹ ACOG recommends exercise for its overall health benefits.

If the pregnancy is normal and the woman is in good health, women can continue to exercise

throughout pregnancy. There are few hard and fast rules, but women should stop exercising and contact their doctor or midwife if they experience:

- vaginal bleeding
- shortness of breath *before* exertion
- dizziness
- headache
- chest pain
- muscle weakness
- calf pain or swelling
- preterm labor
- decreased fetal movement
- leakage of fluid

► What are the benefits and risks to exercise during pregnancy?

There numerous benefits of exercise, including improved long-term health of the heart and circulatory system, reduced rates of constipation often experienced during pregnancy, reduced rates of excessive weight gain (recommended 25 to 35 lbs maximum), improved energy levels, and improved body image.⁴ Additionally, for the first time, ACOG now recognizes that exercise may have a role in the prevention of gestational diabetes.¹

There are some maternal risks associated with exercise during pregnancy, including dehydration, sprains and strains, and back pain. It is normal to sweat more than normal during pregnancy, so pregnant women should pay special attention to maintaining proper hydration before, during and between exercise sessions. Increased weight gain during pregnancy increases forces across joints such as the hips and knees by as much as 100% during weight bearing exercise such as running. Such large

forces may cause discomfort to normal joints. Additionally, musculoskeletal ligaments become more lax, thought to be secondary to the chemicals of pregnancy, and this may be also responsible for the increased risk of sprain and strains. Due to normal anatomical changes in pregnancy, women typically develop an increased curvature of the spine (lumbar lordosis), which contributes to the very high (50%) prevalence of low back pain in pregnant women.



There is little or no evidence that normal exercise causes any risks to the baby. In at least some reports, physical activity has been associated with a small increase in contractions of the uterus.² Although there are only anecdotal reports that strenuous activity may be associated with preterm labor, strenuous activity should be avoided in the second and third trimesters in women with a history of or who are at risk of preterm labor. Additionally, studies have shown a small elevation in fetal heart rate by 10-30 beats per minute over their normal heart rate when the mother exercises, though this has never been associated with lasting effects to the fetus.²

While in the past there was some belief that increased physical activity could result in decreased fetal birth weight, ACOG recognizes that fetal birth weight is not affected by exercise in women with adequate energy intake.^{2,6} Lastly, studies suggest that exercise may create difficulties maintaining a sufficiently low body temperature.¹ Maintaining a maternal body temperature below 39 °C (102 °F) during the first 45-60 days may be safer for the developing fetus, though there have not been conclusive studies to prove this in humans.²

► Is there anyone who should avoid exercise during pregnancy?

The new ACOG guidelines recommend that patients with any of the following conditions refrain from exercise:

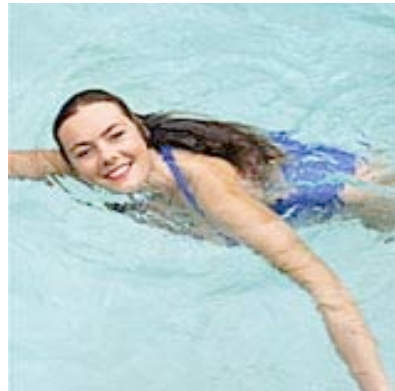
- significant heart disease
- restrictive lung disease
- incompetent cervix or cerclage
- multiple gestation at risk for premature labor
- persistent 2nd or 3rd trimester bleeding
- placenta previa after 26 weeks gestation
- premature labor during the current pregnancy
- ruptured membranes
- pregnancy induced hypertension

If you are unsure if you have any of these conditions, contact your doctor for further advice.

► What kinds of exercises are suitable during pregnancy?

Swimming is an excellent exercise during pregnancy which is both gentle and effective.³ The

buoyancy of water provides physical support to the pregnant woman and her increasing abdominal size, particularly during the last weeks of pregnancy. This allows many pregnant women to continue to exercise, rather than having to stop in the last 4 – 6 weeks. Swimming has also been shown to reduce edema (the collection of fluid in places such as your arms and legs), improve temperature regulation, and minimize the risk of joint injuries. Women who have not swum regularly before should start by swimming for 5 to 10 minutes on the first three occasions. They can then gradually increase the time to 20 minutes at a normal pace two to three times a week. Swim in water of moderate temperature 18-25°C (65-77°F), and avoid very hot water, such as steam rooms and hot tubs.



Brisk walking two to three times per week is also an effective form of exercise. The Center for Disease Control and Prevention and the American College of Sports Medicine (CDC-ACSM) have recommended 30 minutes of more of moderate activity equivalent to brisk walking at 3-4 mph on most days of the week.² Slightly more intense

exercise performed in 20-60 minute sessions 3-5 days a week will result in higher levels of physical fitness.

Stationary cycling is also an effective alternative to swimming or brisk walking, but contact your doctor or midwife if you have problems with pelvic joint discomfort (pelvic arthropathy).

► What kinds of activities should be avoided?

While women may continue to participate in many forms of individual or team sports⁵, ACOG cautions against contact sports, such as ice hockey, soccer, and basketball, or activities with a high risk of abdominal trauma or falling, such as gymnastics, horseback riding, downhill skiing, and vigorous racquet sports. SCUBA diving should be avoided throughout pregnancy because the fetus is at increased risk of decompression sickness (“the bends”). Additionally, supine exercises (exercises while on your back) should be avoided. Lastly, activities that may result in high joint stress should be pursued with caution.

References:

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5. Pivarnik JM, Perkins CD, Moyerbrailean TM. Athletes and pregnancy. *Clinical Obstetrics and Gynecology*. 2003; 46(2): 403-414.
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