



## Exercise and Body Dynamics in Pregnancy

### Body changes in Pregnancy:

Early in pregnancy your body begins to produce relaxin a hormone that causes stretch in ligaments and joints. As a pregnancy advances, the mother's pelvis begins to tip backwards to balance the forward weight of the developing fetus with expansion of the uterus. This increases the arch in the lower back. These changes can put stress on the spine, enhancing its natural S shape, and can also strain other muscles and ligaments. The expanding uterus also presses against abdominal muscles. This can cause a condition called diastasis recti, in which the two large parallel bands of muscles that meet in the middle of the abdomen separate. This can also contribute to lower back pain and if severe make it difficult to lift objects or do other routine daily activities.

A greater number of women are choosing to exercise in pregnancy as the recommendations by the American College of Obstetrics and Gynecology (ACOG) and other organizations have changed in recent years. Exercise during pregnancy can be beneficial to the health of the fetus and mother. Physicians should be aware of the contraindications to exercise, the warning signs to terminate exercise, and the latest recommendations by the ACOG. In the absence of contraindications, the authors believe that physicians should help to develop a reasonable exercise protocol for women based upon their previous activity levels. It is incumbent upon physicians to be aware of the unique physiologic factors present during pregnancy that may predispose women to injuries. Treatment of injuries sustained during pregnancy must balance the risks to both the mother and fetus.

### Benefits of prenatal Fitness

- improved strength and stamina for labor and delivery
- increase circulation to help swelling in hands and feet
- improved metabolism
- decreased fatigue
- easier recovery
- Ease or prevent back pain and other discomforts
- Boost your energy level
- Prevent excess weight gain
- Reduce the risk of gestational diabetes, pregnancy-related high blood pressure and postpartum depression

### Pacing it for pregnancy

For most pregnant women at least 30 minutes of moderate exercise daily is recommended, but even shorter or less frequent workouts can help you stay in shape and prepare for labor. If you haven't exercised for a while, begin with as little as five minutes of physical activity a day. Build up to 10 minutes, 15 minutes, and so on, until you reach at least 30 minutes a day. If you exercised before pregnancy, you can probably continue to work out at the same level while you're pregnant — as long as you're feeling comfortable and listen to your body. In general, you should be able to carry on a conversation while you're exercising. If you can't speak normally while you're working out, you're probably pushing yourself too hard. Remember to stretch before and after each workout. Drink plenty of electrolyte fluids to stay hydrated. No matter how dedicated you are to being in shape, don't exercise to the point of exhaustion.

#### Ways to Get Motivated:

- Start small. You don't need to join a gym or don expensive workout clothes to get in shape. Just get moving. Try a daily walk through your neighborhood. Vary your route to keep it interesting.
- Find a partner. Exercise can be more interesting if you use the time to chat with a friend. Better yet, involve the whole family.
- Use a headset. Listen to music or a book while you exercise. Use lively songs to energize your workout.
- Try a class. Many fitness centers and hospitals offer classes designed for pregnant women. Choose one that fits your interests and schedule.
- Get creative. Don't limit yourself. Consider hiking, rowing or dancing.
- Give yourself permission to rest. Your tolerance for strenuous exercise will probably decrease as your pregnancy progresses.
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The safest and most productive activities are [swimming](#), [brisk walking](#), [rowing](#), [stationary bicycling](#), [yoga](#) (hot yoga only if you have previous experience and increase electrolyte drinks before and after) [low-impact aerobics](#), and [strength training with low weights](#). These activities carry little risk of injury, benefit your entire body, and can be continued until birth. [Tennis](#) and [racquetball](#) are generally safe activities, but due to balance changes your movements might be shifted. [Jogging/running](#) can be done in moderation. Modified abdominal exercises can be beneficial in strengthening core muscles, but care must be taken to not stress a diastasis.

#### Exercise to avoid

- Holding your breath during any activity
- Activities where falling is likely (such as skiing and horseback riding)
- Contact sports such as softball, football, basketball and volleyball
- Activities that require extensive jumping, hopping, skipping, bouncing or running
- Deep knee bends, full sit-ups, double leg raises and straight-leg toe touches
- Bouncing while stretching
- Exercises that require lying on your back for long periods.
- Waist twisting movements while standing
- Exercise in hot, humid weather

#### Signs to watch out for:

- Dizziness
- Headache
- Shortness of breath
- Chest pain
- Abdominal pain
- Vaginal bleeding