

Understanding Back Pain

Back Pain During Pregnancy

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Women, who are pregnant, have a very high chance of developing back pain during the course of their pregnancy. Studies have shown that up to 80% of woman who are pregnant develop at least one episode of back pain during pregnancy. This might occur as a single episode or there may be recurrent episodes of back pain. If there is a history of back pain prior to the pregnancy there is greater likelihood that you will develop back pain during pregnancy. This is also true with sciatic pain. If there is a history of sciatic pain prior to the pregnancy, there is a greater chance of developing sciatic pain during pregnancy. Back pain in pregnancy may occur as early as 8 to 12 weeks into the pregnancy although most pregnancy-related back pain occurs after the 20th week usually during the 25th to 27th weeks. This is a period when the mother remains relatively active and there is significant weight gain and a change in low back posture.

There are four primary reasons why back pain develops during pregnancy. The most common reason is the strain created on the low back from weight gained during the pregnancy. It is not uncommon for a pregnant woman to gain approximately 25% to 30% of her body weight during the course of pregnancy. This additional weight places strain upon the low back, more specifically the intervertebral discs, facet joints, and the sacroiliac joints. Weight gain of 25 to 50 pounds during pregnancy places stress upon the back similar to continuously carrying a 25 to 50 pound bag of concrete around throughout the day. Additional weight also places stress upon the low back muscles and ligaments.

Another reason back pain occurs during pregnancy is the change which occurs in the body's center of gravity. As the abdomen protrudes further forward, there is an increase in the curve of the low back. This curve is referred to as the lordosis. The increased curve of the spine in a forward (anterior) direction is sometimes referred to as a sway back. The increased lordotic curve places additional stress and strain upon the pair of spinal (facet joints), which lie behind each disc level. The change in the lumbar curve also alters the curves of the neck and mid back (the thoracic and cervical curves) regions. The breasts become enlarged during the pregnancy, which also contributes to an increased weight on the spine. During the second and third trimesters of the pregnancy, the growing baby adds extra weight changing the mother's center of gravity, which lies just in front of the lumbar spine. The body will attempt to readjust posture by assuming a sway back with an increase in the lumbar curvature or lordosis, thereby, increasing the stress on the low back.

Another cause for back pain during pregnancy is the stretching of the abdominal muscles. Strong abdominal muscles with good tone help to maintain pelvic stability and also help to reduce the degree of the low back curve (lordosis). As the baby in the uterus enlarges, the abdominal muscles are gradually stretched to accommodate the expanding abdominal cavity. The abdominal muscles are responsible for pulling the front part of the pelvis up and forward. Compensation for the expanding abdomen requires that the pregnant mother lean back, thereby, increasing the curvature of the low back and stretching the abdominal muscles. When abdominal muscles are over-stretched, they are less capable of contracting and performing work, which further accentuates the abnormal low back posture and low back stress.

Pregnant woman also become more prone to develop low back pain during pregnancy because of the high blood levels of relaxin in the blood. The hormone relaxin serves to relax ligaments and muscles. During the pregnancy, the concentration of relaxin in the blood stream can become 10 to 15 times as high as it would be in a non-pregnant woman. The thick, dense, and tough sacroiliac ligaments and ligaments of the spine become less supportive and relax allowing for increased joint mobility. The changes in the tension of the ligaments in the pelvic region allows the pelvis to expand preparing for vaginal childbirth. The effect of relaxin on the sacroiliac joints during the late course of pregnancy contributes to the wobbling type of gait that women often develop during the latter phases of their pregnancy. This waddling gait may persist after the course of birthing. With passing time, loss of weight and with improving abdominal muscle tone and strength gait often returns to normal.

Back pain associated with pregnancy can be generally placed into one of two categories, low back (lumbar) pain and pelvic pain. Low back pain in pregnancy feels similar to the pain experienced with a muscle strain or sprain. The pregnant women may develop sciatic pain, if there is compromise of the nerve roots coming out of the spine at the level of the low back. An increase in the curve of the low back will result in narrowing of these openings. If a woman enters pregnancy with preexisting degenerative changes or disc pathology in the low back, the increased lumbar curve along with the preexisting degenerative changes increases the risk for developing sciatic pain. The pregnant women may also develop radiating leg pain due to the expanding fetus and uterus compressing the nerves which run behind the uterus.

Pelvic pain is different from low back pain. It tends to be located at the waistline extending to the lower abdomen and hip regions. Pain which arises from the pelvic region rarely goes below the knees. It can occur on one or both sides. Pregnant women are more prone than non-pregnant women to develop pelvic pain. There are many things which will cause pelvic pain in the pregnant women. The pain may be mechanical in nature arising from changes in the pelvic contents in response to an expanding uterus. There can also be obstetric causes of pelvic pain, which have absolutely nothing to do with the spine. The causes of pelvic pain may be associated with back pain, but the pain is not actually originating from the spine. There may be situations, where there is both low back (lumbar) and pelvic pain.