

Back Pain in Pregnant Women: More Than a Snapshot

Is low back pain (LBP) during pregnancy normal? If studies are right and half of all women have low back pain sometime during pregnancy, does that support the idea that this symptom is to be expected during pregnancy? Available studies provide only a snapshot of what's going on with women, pregnancy, and low back pain. The answers to these and other questions are not to be found in the many small studies already published.

That's why the results of this very large study conducted in Iran involving more than 1,000 pregnant women have gained international attention. Iranian women ages 15 to 41 and who were pregnant were included in this project. For some of the women, this was their first pregnancy, while others had as many as eight pregnancies. All women were in their first, second, or third trimester ranging from five to 41 weeks gestation (age of developing fetus).

The women came from 18 health centers across rural and urban areas in northern Iran. Anyone with spinal deformities or previous spine surgery was not included in the study. Other health concerns such as spine tumors, osteoporosis, bone fractures, inflammatory disorders, or other chronic conditions were also reasons women were excluded from the study.

The goal was to find out how common low back pain is during pregnancy. The researchers also wanted to know what risk factors for low back pain might be present and what makes the pain better or worse (relieving versus aggravating factors). Information was collected using a survey of personal questions and several standard research tools.

The Visual Analog Scale (VAS) was used to assess pain intensity. The Oswestry Low Back Pain and Disability Questionnaire (ODQ) measured function such as ability to walk, sit, carry out daily activities, and participate in social life. The women also completed a pain drawing to help show the location of their pain and other symptoms. For this study, low back pain was defined as pain between L1 and L5, including the sacroiliac joints.

Conducting a study of this size helps improve the validity of the findings. Results are more statistically significant and reliable when the data is collected on more than just a few women. Analyzing the data showed some interesting patterns. For example, pain was progressively worse over time, so that the most severe pain was reported at the end of the pregnancy (third trimester). Younger women and women who had been pregnant multiple times (called multiparity) had higher rates of pain. Consistent with findings of other studies, they also found that pain was more likely to occur in women who had previous episodes of back pain (whether during pregnancy or not).

There were other important findings from this study. Women in rural areas were less likely to develop back pain during pregnancy. The authors suggest this may be due to the fact that women in rural settings are more active. It may mean that physical activity and exercise could turn out to be a preventive step in eliminating back pain during pregnancy. In all women, those who were more active and who exercised were less likely to develop back pain. This outcome supports, but does not prove, the role of physical activity and exercise as a deterrent to low back pain during pregnancy.

All together, risk factors for low back pain in pregnant women included:

- younger age

- multiparity (multiple pregnancies)
- urban (city) location
- obesity and inactivity
- perceived poor health
- previous history of low back pain anytime

As for aggravating and relieving factors, rest (sitting, lying down) helped reduce pain. Standing for long periods of time increased painful symptoms. Women who had help with daily household chores were also less likely to develop back pain suggesting that motherhood itself (or perhaps the activities associated with motherhood) are risk factors for low back pain.

The results of this study confirm what has been found in smaller studies. Back pain is common and potentially disabling during pregnancy. This study will continue beyond the findings here. The effects of treatment will be studied in phase 2. The final goal is to find ways to prevent low back pain during pregnancy for all women regardless of age, gestation, parity (which number birth), and past history of back pain. Right now, it looks like physical activity and exercise may be the golden key to solve the problem. Optimal type of exercise, frequency, intensity, and duration remain to be determined.

Reference:

Mohammad A. Mohseni-Bandpei, PhD, et al. Low Back Pain in 1,100 Iranian Pregnant Women: Prevalence and Risk Factors. In *The Spine Journal*. October 2009. Vol. 9. No. 10. Pp.795-801.