

## Neuromuscular and Biochemical Changes During Pregnancy

During pregnancy, most women experience a number of neuromuscular and biochemical problems which respond favorably to gentle, safe, noninvasive chiropractic care. These include:

- release of the hormone relaxin causes muscle and ligament relaxation
  - allows joints to more easily misalign
- increased weight gain
  - increased demand and fatigue on spinal and pelvic muscles
  - increased stress on spinal and pelvic ligaments
  - increase in lumbar and thoracic spinal curves which further increase the above
  - increased joint stress and thus occurrence of vertebral and sacroiliac joint misalignments
- change in weight distribution
  - increased demand and fatigue on spinal and pelvic muscles
  - increased stress on spinal and pelvic ligaments
  - increase in lumbar and thoracic spinal curves which further increase the above
  - increased joint stress and thus occurrence of vertebral and sacroiliac joint misalignments

The above changes primarily affect the pelvic and spinal ligaments, muscles, joints and other supportive soft tissues. These changes cause sprain/strains of pelvic and spinal structures, as well as alteration of the normal spinal curvatures and spinal biomechanics. The result is an increased stress on the body leading to pain and discomfort.

## Chiropractic Treatment of the Neuromuscular and Biochemical Problems

Doctors of chiropractic can alleviate the uncomfortable symptoms arising from the muscular, ligamentous, and biomechanical stresses encountered during pregnancy. We accomplish this through the use of a number of highly specialized procedures and techniques:

- GENTLE SPINAL ADJUSTIVE PROCEDURES - specifically designed for use in the pregnant female
  - assist in maintaining a spine free from vertebral misalignments and fixations - optimizing spinal biomechanics
  - keep pelvis and spine in correct position/posture
  - assist in pain relief by (1) reflexively reducing pain levels, and (2) reducing spinal and pelvic stresses which produce soft tissue pain

- keep tissues and biomechanics functioning optimally to minimize complications during birth
- THERAPEUTIC EXERCISES AND STRETCHES - safe for use during pregnancy
  - keep spinal musculature strong, balanced, and pain-free
  - enable spinal muscles to maintain the spine and body in a neutral, correct posture
  - keep mom active and mobile
- DIETARY AND NUTRITIONAL COUNSELING - unique to the pregnant mother
  - prevent neural tube and other birth defects
  - increase the chances for a healthy baby
  - assist the mother in maintaining optimal energy levels
  - keep mother happy and healthy during stressful periods
- GENERAL PREGNANCY INFORMATION - general info on pregnancy
  - answer mother's questions
  - improve mother's health
  - optimize birthing process
  - enhance baby's health

## Frequently Asked Questions

**Is Chiropractic Care Safe During Pregnancy?** Chiropractic care during pregnancy is safe for both mother and fetus. Spinal adjustments are especially gentle during pregnancy as far less force is required to correct subluxations. This is due to the increase in hormones causing significant muscle and ligamentous relaxation. Special "adjustive" positions are also used to provide comfort and safety for both mom and fetus.

**How Often Should I Receive Chiropractic Care During My Pregnancy?** The frequency of care varies for a number of different reasons. Typically, regular care during a non-complicated pregnancy will range from once per week to once per month.

## Chiropractic and Pregnancy Scientific Studies

### Low Back Pain During Pregnancy

In this study, researchers identified the sacroiliac joints of the pelvis (frequently "adjusted" by chiropractors) as being responsible for the majority of low back pain cases in pregnancy. This is due to the significant number of hormonal and

biomechanical changes occurring in the pelvis during pregnancy. Researchers found 7/10 women were helped by spinal manipulation in this study.

Bery G, Hammar M, Moller-Nielsen J et al. *Obstet and Gynecol*, 72:71-75, 1988.

#### TextBook on Chiropractic & Pregnancy

According to Dr. Fallon, author and internationally recognized "chiropractic pediatrician", statistics from her office "have demonstrated that chiropractic adjustments effectively reduce the average amount of time spent in labor." Her data shows a nearly 25% reduction in the average labor times in those receiving chiropractic care versus the generally accepted average labor time - in women who had given birth in the past, there was a 33% reduction in average labor time.

Fallon J. International Chiropractic Association. 1994 - Arlington, Virginia.

#### Italian Study on Chiropractic & Pregnancy

Postpartum pain was relieved in 90 of 120 patients who received chiropractic adjustments.