

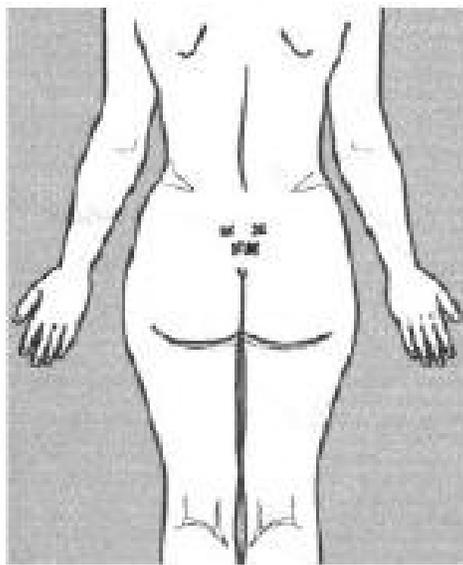
# Sterile Water Injections for Relief of Back Pain in Labor

Regardless of the various comfort measures available; such as hydrotherapy, massage, acupressure, counter pressure and position changes; some women find the pain of back labor difficult to bear. Therefore, many women today are turning to the epidural for the relief they need. However, the epidural comes with many risks to both mom and the baby. Is there any more natural alternative?

**History**-In 1965, Melzack and Wall introduced what is now known as the "Gate Control Theory" which suggests that nerve cells from touch fibers can actually close the gate on pain signals to the brain, thus giving the perception of minimized pain. Therefore, for a woman in labor, the brain has the ability to influence the course of her labor and her perception of pain.

In 1975, Melzack and Fox determined that the perception of pain could be altered by introducing a brief period of pain. This, in turn, would alleviate the chronic back pain. An example of this theory is the use of a TENS (transcutaneous electrical nerve stimulation) unit. The TENS unit sends pulses which interrupts the brain's awareness of pain and may also cause a release of endorphins which is the body's natural pain coping mechanism.

Then in 1989, Lytzen, Cederberg, and Moller-Nielsen presented their study on "Relief of low back pain in labor by using intracutaneous nerve stimulation (INS) with sterile water papules" in a medical journal. This study included 83 women with lower back pain during the first stage of labor. These women were given injections of sterile water intracutaneously over the sacrum. All but six of the women noticed instant and complete pain relief which lasted up to three hours. The procedure could then be repeated. Sixty-seven of the eighty-three were pleased with the results.



Trolle, Moller, Kronborg and Thomsen introduced their study of "The effect of sterile water blocks on low back labor pain" in the American Journal of Obstetrics and Gynecology in 1991. This study contained 272 women complaining of severe low back pain. The women were randomly assigned to receive either a sterile water injection or a saline solution block. There was a significantly higher degree of analgesic relief for those in the sterile water group (89.4%) than those in the saline group (45%). No adverse effects were noted and the patient satisfaction was high.

**The Procedure**-The woman's back is cleansed. Then 0.1-0.15cc of sterile water is injected intradermally into four places on the women's sacrum. Preferably, the procedure should be done with two people doing the injections simultaneously. The injections cause an intense burning sensation which lasts 30-90 seconds. Relief from the procedure should be noticed in 2-3 minutes. Because of the intensity of the pain, the woman should have constant support and encouragement during the time of the injections.

**Conclusion**-Sterile water injections is an excellent alternative for pain relief due to back labor. Even though it may not provide relief from contraction pain, often once the back pain is alleviated, the laboring women can cope better with her labor. Likewise, often the relaxation of the back can assist in the proper decent and positioning of the baby, leading to a shorter labor. With no known side effects and no medications entering the body, sterile water injections may become the choice for the relief of back labor for many laboring women.

## References

- Fox E.J., Melzack R. "Transcutaneous electrical stimulation and acupuncture: comparison of treatment for low-back pain." Pain 1976 Jun;2(2) :141-8.
- Lytzen T, Cederberg L, Moller-Nielsen J. "Relief of low back pain in labor by using intracutaneous nerve stimulation (INS) with sterile water papules." Acta Obstet Gynecol Scand, 1989.
- Melzack R, Wall, P. "Pain mechanisms: A new theory." Science, 150 (1965) 971-979.
- Trolle B, Moller M, Kronborg H, Thomsen S. "The effect of sterile water blocks on low back labor pain." Am J Obstet Gynecol. 1991 May;164(5 Pt 1):1277-81.