

## The Effect of Exercise on Back Pain in the Second and Third Trimester of Pregnancy

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**Abstract :** To analyze the effect of regular physical activities on the back pain of pregnant, a quasi - experimental and field method were used of all pregnant referring to the prenatal clinics of Qom province, 40 women (20 in the 2nd and also another 20 in the 3rd trimester) were selected and divided to test and control groups. At the beginning and at the end of the program, all participants completed the Quebec back pain questionnaire, while a special training program with a heart rate of 50-65% of maximal was applied for a period of 2 months for the test group. Analysis showed a significant reduction of back

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**pain in test group of pregnant in the 2nd trimester  
( $P<0.05$ ).**

**key words**  
**Back pain, Pregnants, Walking, Second and  
Third Trimester of Pregnancy.**

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- 1 - Posture
  - 2 - Lordosis
  - 3 - Lumbar Pain
  - 4 - Posterior Pelvic Pain

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1 - Paired – Sample T Test  
2 - Independent – Sample T Test

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12. Garshasbi. A and Faghih Zadach. (2005). "The effect of exercise on the intensity of low back pain in pregnant women". *International J of Gynecology and Obstetrics*, Vol 88, PP: 271-275.
13. Gatten. S.J.Y. (1988). "On the job back exercise. *American J of nursing*, 88: PP: 656-659.
14. Holstein, Barbara,(1988). "Shaping up for a healthy pregnancy", *life Enhancement publication*, Illinois, USA.
15. Huch. R, Erkkola. R. (1990). "Pregnancy and exercise". A short review. *British J obstet and Gynec*, 97: PP:208-214.
16. Hummel. P. (1987). "Changes in posture during pregnancy". *Amsterdam: Vrije university*.
17. Hytten. FE, (1991). "Weight gain in pregnancy". editor, *clinical physiology in obsterics. oxford, black well scientific publiciations*, PP: 173-203.
18. Kelly - Jones. Alyse and McDonald. Genne, (1997). "Assessing musculoskeletal back pain during pregnancy". *J Primary care uptodate for OB/ GYNS*, Vol: 4, PP:: 205-210.
19. Mellby, et al. (1982). "Assessment of abdominal and back extensor function spine". *J spine*. PP: 211-219.
20. Ostgard. H.C. (1994). "Gunilla zetherstrom, reduction of back and posterior pelvic pain in pregnancy; spine", 19(8):PP: 894-900.
21. Owen, B.H. (1986). "Posture exercise can help preven LBP injery, occupational health and safty", 55(6): P:33.
22. Sandler. S.E, (1996). "The management of low back pain in pregnancy", *J Manual Therapy*, Vol. 1, PP: 178-185.
23. Schoppink L, Van Tulder M, Koes B, Beurskens A,, de Bie R. (1996). "Reliability and Validity of the Dutch adaption of the Quebec back pain disability scale". *phys*. 76: PP: 269-275.
24. Reneman MF. lorrtsma W, Schellekens JMH, Geoken LNH,(2002). "Concurrent validity of questionnaire and performance - based disability measurment in patients with chronicnon - specific low back pain", *J Occup. rehabil*. 12: PP:119-129.