## The Effectiveness of Physical Therapy in Post-Cesarean Recovery: Addressing Functional Limitations and Low Back Pain

## **Abstract**

**Background:** Cesarean sections are the most common surgical procedures performed on women of childbearing age, with a global surge in prevalence. While essential for maternal and fetal health in many cases, C-sections are associated with increased risks of long-term musculoskeletal complications. These include diastasis recti abdominis (DRA), chronic low back pain (LBP), and impaired functional mobility. These complications increase risk for future physical disability and significantly impact postpartum quality of life.

**Objective:** This study aims to compare the effectiveness of early initiation of postpartum physical therapy versus standard postpartum care in reducing the incidence of chronic low back pain (LBP) and improving functional ability in women recovering from cesarean sections.

**Methods:** A systematic review of 40 studies published since 2000 was conducted, focusing on physical therapy interventions for women with cesarean sections and other abdominal surgeries. Key outcomes included LBP prevalence, functional mobility, and core stability. Studies were critically appraised using a standardized framework, yielding 5 highly relevant articles, 11 moderately relevant, and 24 with peripheral insights.

**Results:** Research strongly supports the benefits of physical therapy in reducing low back pain and improving functional outcomes in women after cesarean section. Targeted interventions, including core stability training, supervised exercise programs, and education on diastasis recti management demonstrated enhanced postpartum recovery. Women receiving physical therapy reported better quality of life and greater independence compared to those receiving standard postpartum care.

**Discussion:** Untreated postpartum complications like LBP can result in chronic disability and significantly diminish quality of life. This research emphasizes the critical need for early physical therapy interventions to address abdominal wall dysfunction, restore core stability, and mitigate chronic pain. In addition, observed disparities in physical therapy referrals for cesarean section patients underscore the urgent need for standardized postpartum care protocols that prioritize access to timely and appropriate physical therapy.

**Conclusion:** Early postpartum physical therapy is crucial for improving functional outcomes and quality of life in women recovering from cesarean section. Physical therapists must advocate for routine referrals and educate patients on the benefits of early rehabilitation. Future research should investigate barriers to consistent physical therapy access and propose targeted improvements in postpartum care protocols.

## References

Abdelhalim, N. M. (2022). The efficacy of isokinetic strength training versus core stability training on the trunk muscle strength and quality of life after surgical repair of incisional hernia in adolescents. Turkish Journal of Physical Medicine and Rehabilitation, 68(4), 501–508. https://doi.org/10.5606/tftrd.2022.9899

Di Stasi, S., Chaudhari, A. M., Renshaw, S., Wei, L., Ward, L., Arhos, E. K., & Poulose, B. K. (2023). Abventure-P pilot trial of physical therapy versus standard of care following ventral hernia repair: Protocol for a randomized controlled trial. PLOS ONE, 18(7). https://doi.org/10.1371/journal.pone.0289038

Fan, C., Guidolin, D., Ragazzo, S., Fede, C., Pirri, C., Gaudreault, N., Porzionato, A., Macchi, V., De Caro, R., & Stecco, C. (2020). Effects of Cesarean Section and Vaginal Delivery on Abdominal Muscles and Fasciae. Medicina (Kaunas, Lithuania), 56(6), 260. https://doi.org/10.3390/medicina56060260

Kwon, Y. J., Hyung, E. J., Yang, K. H., & Lee, H. O. (2014). How different modes of child delivery influence abdominal muscle activities in the active straight leg raise. *Journal of physical therapy science*, 26(8), 1271–1274. https://doi.org/10.1589/jpts.26.1271

Yang, Y., Yang, H., Ji, J., Zhao, Y., He, Y., & Wu, J. (2023). Predictive value of abdominal wall scar score for pelvic floor function rehabilitation, vaginal microecology and complications after cesarean section. PeerJ, 11, e16012. https://doi.org/10.7717/peerj.16012