

Pelvic Muscle Strength After Childbirth

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SUMMARY: MOAD study participants were asked to participate in a supplementary study assessing pelvic muscle strength. The primary objective of the study was to look at the effect of childbirth on pelvic muscle strength.

At the time of the analysis, 666 moms agreed to participate in this additional study. The 89 moms who did not participate declined due to multiple reasons, including but not limited to Latex allergy.

Using a “Peritron perineometer”, pelvic muscle strength was measured after the standard MOAD exam was completed. The Peritron consists of a vaginal sensor, connected to a handheld microprocessor. The sensor is inserted into the vagina while the woman contracts her pelvic muscles. This exercise is known as a kegel exercise. Women were asked to squeeze as hard as possible and to maintain the contraction as long as possible. They were also instructed to allow the pelvic muscles to relax when the muscles tired and the contraction could no longer be maintained. Two contractions were completed and for each contraction a peak pressure and duration of contraction were measured.

Age, race, parity and obesity were not associated with pelvic muscle strength. Both peak muscle strength and duration were less in women who had vaginal births compared to those women who had all deliveries by cesarean. Furthermore, pelvic muscle strength was significantly reduced for vaginal deliveries with forceps. Decreased muscle strength and duration of contraction were associated with vaginal delivery of an infant >4kg (~9 lbs), episiotomy, perineal laceration (a vaginal tear with childbirth), and anal sphincter laceration (a vaginal tear that included injury to the rectum). Analysis of the data also suggested that among those with at least one vaginal delivery, reduced pelvic muscle strength seems to be a risk factor for pelvic floor disorders.

This research was presented at a scientific meeting in October 2012 by Dr. Sarah Friedman, MOAD physician. The full text can be read below:

http://www.hopkinsmedicine.org/johns_hopkins_bayview/docs/medical_services/obstetrics_gynecology/research/MOAD/PelvicMuscleStrength_FullText.pdf