

The Female Pelvic Floor

So Little Said About So Much



By Dr Oseka Onuma

Female pelvic floor disorders (PFD) affect millions of women throughout the world. The social and economic impact of PFD makes it one of the most important, though least recognized 'family' of conditions that leads women to seek medical or surgical attention.

Women who have sought help for advanced pelvic floor prolapse and urinary incontinence have been shown to suffer from decreased body image and quality of life. PFD include conditions such as urinary and faecal incontinence, pelvic organ prolapse and sexual dysfunction. Whilst the symptoms are generally not life threatening, the impact on an individual can be severe, interfering with an individual's ability to participate in many life areas and having to deal with the associated stigma. Older women consistently report higher rates of pelvic disorders than their younger counterparts. In the USA, urinary incontinence is the second most common reason for requesting nursing home placements. Pelvic floor disorders have been demonstrated to affect an increasingly younger population of women, and for many, the symptoms begin during or after their first pregnancy.

Female pelvic organ prolapse is thought to affect 31% of women between the ages of 20 – 59 years. The incidence increases with age and is estimated to be responsible for 20% of women awaiting major gynaecological surgery (UK statistics). Women have an 11% lifetime risk of at undergoing least one operation for pelvic organ prolapse and the re-operation rate is about 30%. Pelvic organ prolapse can result in pelvic floor dysfunction manifesting as urinary stress incontinence, voiding difficulty, faecal soiling and incomplete bowel evacuation, reduced sensation during intercourse, the impression of an open, patulous vagina and the passage of vaginal flatus. Many women, when closely questioned will admit to placing their finger within the vagina, within the rectum or on the perineum (so-called 'digital splinting') in order to

achieve an empty rectum. The labia can become enlarged over time with an increase in discomfort with rubbing on clothing or during intercourse. Many will be told or assume that these problems are part and parcel of being a woman. In the majority of cases this is simply not true. There are many options available for correcting these problems and thus giving back to women the quality of life that they would hope for and expect. There are a number of factors that have been associated with pelvic organ prolapse and urinary incontinence. These include increasing age and parity (number of children), big babies, menopause, obesity, occupations or illnesses that result in chronically raised pressure within the abdomen, greater than one termination of pregnancy, home delivery and a positive family history. Childbirth is one of the strongest risk factors for pelvic organ prolapse. Evidence suggested that this is related to disruption of the pelvic floor tissues and denervation of the pelvic floor muscles.

During pregnancy a multitude of changes takes place within the woman's body. These generally facilitate the progress of the pregnancy towards a successful conclusion; the delivery of a healthy baby to a healthy mother. Within the first third months of pregnancy (1st trimester) dramatic alterations take place in emotion, hormonal status, physiology and anatomy. Many of these developments will take place before others note the 'bump' of pregnancy. In order to accommodate the growing baby, relaxation of the muscles and connective tissue of the abdomen and pelvis needs to occur. The bony structures of the pelvis do not change, but the ability of the composite bones to move relative to each



Labia minora elongation, hypertrophy and hyperpigmentation.



Perineal body detachment and posterior vaginal wall prolapse.



The cervix outside the vagina in severe uterine prolapse.



The top of the vagina outside the body; vaginal vault prolapse.

other does. Progesterone and Relaxin are the main hormones involved in this process. Without an increase in the concentrations and activity of Progesterone and Relaxin, the female abdomen and pelvis would remain restrictive, growth of the baby compromised and vaginal delivery impossible.

Thus, at a singular, very important level, the malleability of the female pelvic floor structures is what every woman contemplating a pregnancy would wish for. On the other hand, pregnancy and delivery are noted to be the primary causes of damage to the female pelvic floor. Note that pregnancy and delivery have been distinguished as separate processes. Not every pregnancy ends in delivery. Even in those that end as early miscarriages or where the pregnancy is medically terminated, the dramatic changes in hormonal status and connective tissue function have already begun to take place and some of these changes produce effects on the pelvic floor that contribute towards the panorama of pelvic floor dysfunction in later years.

The mode of delivery impacts on the risk and degree of pelvic floor damage. The so-called 'normal vaginal delivery' occurs when the baby's head descends through the mothers' birth canal and is delivered through the entrance to the vagina (introitus). 'Normal' it may be, but the head stretches, tears and disrupts muscle, connective tissue and ligaments as it passes through the pelvis. Other types of delivery that tend to cause even more damage include instrumental deliveries, in particular the forceps and ventouse (suction cup) delivery. These instruments are used in circumstances where a normal delivery has not been achieved or where there is a perception that allowing the delivery process to continue would place the baby at risk of reduced oxygen supply. Use of instruments, whilst facilitating delivery of the baby, increase the incidence of pelvic floor muscular, connective tissue and nerve damage. Lacerations, tears and the formation of scar tissue are more common. Outcome? Better for baby, potential long-term damage to pelvic floor function for mother.

Symptoms of damage to the pelvic floor may become apparent during the first or subsequent pregnancy or several years after the last pregnancy. Most women, when closely questioned, will report symptoms of pelvic floor dysfunction following delivery of their first baby, but a combination of factors (coping strategies, impression that no solutions existed, too busy and putting the family first) results in many women not seeking medical attention until their symptoms become more confronting; leaking urine when on the trampoline or playing sport, inability to have intercourse due to pain, awareness of a lump in or protruding out of the vagina, elongated labia causing discomfort when wearing close fitting clothing or underwear). These symptoms gradually erode women's perception of their femininity, often resulting in avoidance of intimacy with partners. Other common symptoms of pelvic organ prolapse include the feeling of pelvic heaviness, the feeling of something falling, a bulge noticed at the entrance to the vagina, the impression of sitting on something and pain during intercourse. Predisposition towards prolapse may be a result of abnormal connective tissue resulting from abnormal collagen, imbalance between synthesis and degradation or an imbalance between collagen types.

Dr Onuma is a tertiary level gynaecologist and pelvic reconstructive surgeon accepting direct referrals from primary care givers and complex referrals from other specialists in the areas of female urinary incontinence, female pelvic organ prolapse. He teaches trainees and specialists' minimal access incontinence and advanced laparoscopic gynaecological surgery. He acts as a preceptor for some international companies demonstrating and teaching products used for incontinence, pelvic floor reconstruction and female menstrual dysfunction. Dr Onuma has lectured nationally and internationally on issues related to consent to treatment in the practice of medicine, the management of female urinary incontinence, pelvic organ prolapse, sexual function surgery and menstrual dysfunction. He is an invited participant and trainer on female pelvic floor and laparoscopic training meetings and provides urodynamics assessments and reports for his own patients and those of other specialists.

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