Sexual dysfunction is a couple's disease, and is common in both women and men. With the introduction of effective oral therapies for the treatment of erectile dysfunction (ED) in men, increased media attention has brought “female sexual dysfunction” (FSD) into the limelight. Epidemiologic studies have demonstrated that whereas more than 50% of men aged 40 to 70 years have sexual dysfunction, this problem may in fact be even more prevalent in women. Whereas psychological and interpersonal relationship issues had been thought to be the primary causative factors of FSD, we are now learning that, similar to sexual dysfunction in men, FSD can often be attributed, at least in part, to pathophysiologic changes, such as chronic disease states, aging, and medications, as well as other physical factors, such as pelvic and colorectal surgeries. In addition, FSD has been shown to respond to treatment of the underlying condition and to other specific therapies. In this chapter, we will look at the various classifications, causative factors, diagnostic evaluations, and therapeutic alternatives for women with sexual dysfunction, with a special emphasis on the impact of pelvic floor disorders and colorectal surgery (CRS) on FSD.

Epidemiology

Sexual dysfunction is a disease affecting men and women of all ages. The Massachusetts Male Aging Study, one of the largest epidemiologic studies, revealed the high prevalence of ED. In fact, it was shown that 52% of men between the ages of 40 and 70 had ED. Subsequent epidemiologic studies in women suggested that FSD was also an extremely prevalent problem. A report in the Journal of the American Medical Association suggested that 43% of women, aged 18 to 59, had FSD. In fact, the prevalence of FSD in this study was greater than that of ED. Of note, FSD is more prevalent in patients with a history of sexual abuse and is often reported in women with a history of sexual coercion. In a study reported at the Annual Meeting of the American Urologic Association in 2000, Nehra and associates looked at the prevalence of FSD in the partners of men with ED. One hundred fifty women were evaluated, aged 25 to 82 years. The study revealed that 56% of these women had FSD, and demonstrated specific vascular risk factors, including cigarette smoking, hypercholesterolemia, hypertension, and prior pelvic surgery. Based on population surveys, this would suggest that more than 30 million women in the United States might have FSD. Unfortunately, despite this high prevalence, it has been estimated that less than 5% of women with FSD are being treated.

Several explanations for the phenomenon of FSD have been proposed. These include embarrassment on the part of the patient to discuss personal sexual matters or a feeling that her concerns would be “brushed aside,” embarrassment or lack of time on the part of the physician (man or woman), and lack of education regarding the prevalence, significance, and treatment options available for FSD.

The question arises as to why the identification and treatment of FSD is important. Despite the belief of many physicians that the treatment of sexual dysfunction is not a “medical” priority, it is crucial to remember that normal sexual function is an important part of the essential intimacy between a woman and man (“the COUPLE”). Furthermore, sexual dysfunction often leads to loss of self-esteem, depression, and alienation from one’s partner. In addition, similar to its counterpart in the male (ED), FSD is a spectrum of disease and may be an early warning sign of significant unrecognized systemic vascular disease indicating an increased risk for heart attack or stroke.

Sexual Dysfunction and Aging

It has been suggested that in both women and men, sexual dysfunction is age-related and progressive. The Massachusetts Male Aging Study demonstrated that the incidence of ED clearly increases as men enter the sixth, seventh, and eighth decades of life. This increased prevalence with aging is less clear in women. Unlike ED, we can see a significant prevalence of FSD in women of all ages, such as young
mothers after childbirth, premenopausal smokers, as well as peri- and postmenopausal women.

There are, however, specific factors related to aging that are often associated with FSD and need to be addressed. As women age, there is a progressive decrease in overall physiologic function. In addition, as estrogen levels diminish, genital and vaginal atrophy may be seen. This can be associated with decreased vaginal lubrication and pain during intercourse, or dyspareunia.

Female sexual dysfunction can also be the result of pathophysiologic changes resulting from chronic disease processes, such as atherosclerosis, cardiovascular disease, lipid disorders, and diabetes. Psychological issues, such as depression, are often seen in association with women with sexual dysfunction, and may be a causative factor. In addition, the loss of a lifelong partner, or other partner-specific issues, including ED and chronic disease, are often contributory.

**Sexual Dysfunction and Incontinence**

The association of FSD and urinary incontinence has also been shown. In fact, it has been estimated that in up to 43% of women with urinary incontinence, evidence of sexual dysfunction is also present. Considering that less than 30% of physicians ask their patients with urinary incontinence about their sexual function, this may be an underestimate.

**Diagnostic Classifications**

In 2000, a new classification of FSD was developed by a consensus panel of experts in the field of sexual medicine (Table 5-1.1). The categories include sexual desire disorders, sexual arousal disorders, orgasmic disorders, and sexual pain disorders.

The definitions of the new classification system took into account that there should be some degree of “personal distress” caused by the disorder for it to be a problem. Additionally, the presence of sexual dysfunction in the male partner or any impact of the FSD on the partner was not part of the classification or definition. This system can be used whether FSD results from medical or psychosocial factors. In addition, each of these categories was independent of the other, and overlap between categories could often be seen. For example, women may complain of both poor arousal and pain with intercourse. Additionally, a woman with FSD may experience loss of libido, but arousal and lubrication can be normal.

**Hypoactive Sexual Desire Disorder**

Hypoactive sexual desire disorder is the persistent or recurrent lack of sexual thoughts and/or receptivity to sexual activity, which causes personal distress. Hypoactive sexual desire may be associated with psychological or emotional disorders, as well as physiologic factors, such as androgen insufficiency. Sexual aversion disorder is a subcategory of hypoactive sexual desire.

**Sexual Arousal Disorder**

Sexual arousal disorder is the persistent or recurrent inability to attain or maintain sexual excitement, which causes personal distress. This disorder includes poor vaginal lubrication, decreased genital sensation, and poor vaginal smooth muscle relaxation. Arousal disorders are primarily physiologic in nature and can often result from pelvic and colorectal surgery and other pelvic disorders, various medications, atherosclerosis, cigarette smoking, and vascular disease. This disorder most closely parallels ED in the male. In fact, a condition of hyperactive sexual arousal disorder, analogous to the priapism state in the male, has also been described.

**Orgasmic Disorder**

Orgasmic disorder is the persistent or recurrent loss of the ability to achieve orgasm with sufficient sexual stimulation and arousal, and which causes personal distress. Orgasmic failure may be associated with changes after nerve injury from colorectal and pelvic surgery, spinal cord injury, androgen insufficiency, as well as psychosexual factors.

**Sexual Pain Disorder**

Sexual pain disorder is the persistence or recurrence of genital pain associated with sexual stimulation and intercourse, which causes personal stress. Dyspareunia, pain upon intromission, and vaginismus, or the reflexive “closing” of the vaginal introitus, are types of sexual pain disorders. Pelvic trauma, such as seen with childbirth injuries and CRS, as well as psychological trauma, may be associated with this disorder.