

## Assessing and Addressing Erectile Function Concerns in Patients Postprostatectomy

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### Case Study

Mr. J, a 52-year-old African American male, returns to the clinic for routine post-surgical follow-up six weeks after a bilateral nerve-sparing radical retroperitoneal prostatectomy for prostate cancer. Mr. J's surgery was performed at a major comprehensive cancer center by an experienced urologic surgeon. As part of the informed consent process prior to surgery, Mr. J's surgeon informed him about the risk for postoperative erectile dysfunction. He received relevant cancer center statistics and general information regarding postoperative recovery of erectile function specific to the operative procedure and was told about the availability of postoperative erectile function rehabilitation. He completed the International Index of Erectile Function (IIEF) (Rosen et al., 1997) prior to surgery. On the questionnaire, Mr. J indicated that he was able to achieve and maintain an erection most of the time during sexual intercourse, found sexual intercourse highly enjoyable, had a high level of confidence in his ability to get and keep an erection, and felt moderately satisfied with his sex life.

At the six-week postoperative visit, the nurse planned to assess and address Mr. J's concerns regarding postoperative recovery of erectile function. The nurse asked Mr. J

to complete the IIEF to assess his postoperative erectile function. Mr. J verbalized his concerns that he had not noticed penile tumescence or nocturnal erections since the removal of the urinary catheter placed during his surgery. His confidence was very low that he would be able to get and keep an erection because he had largely recovered from surgery. The nurse used this opportunity to review the general information regarding postoperative recovery of erectile function specific to his operative procedure, introduce the topic of erectile function rehabilitation and recovery, institute a teaching program, and allow Mr. J to discuss his concerns.

### Clinical Problem Solving

#### What is the incidence of erectile dysfunction in patients who undergo radical retropubic prostatectomy?

In the immediate postoperative period, virtually all patients will experience erectile dysfunction. When highly experienced surgeons in major academic centers perform bilateral nerve-sparing retropubic prostatectomies, recovery rates of erectile function range from 60%–85% within 24 months of surgery (Burnett, 2005). In patient populations in which only one nerve is spared or if community-based urologic surgeons perform

the procedure, recovery rates are more variable (30%–70%) (Burnett, 2005; Chang, Wood, Kroll, Youssef, & Babaian, 2003). Less than 5% of patients who undergo a non-nerve-sparing procedure achieve functional erectile recovery; however, patients who undergo bilateral sural nerve grafts at the time of the non-nerve-sparing procedure have a 50%–60% recovery rate of functional erections at the two-year follow-up (Chang et al.; Kim et al., 2001).

#### Which preoperative factors affect the recovery of erectile function?

Three preoperative factors influence the incidence of erectile dysfunction postprostatectomy. The first is the level of preoperative erectile function. Men who have diminished ability to achieve or maintain an erection and may require the use of a phosphodiesterase-type 5 (PDE5) inhibitor such as sildenafil, tadalafil, or vardenafil in the preoperative period are at increased risk for poor recovery of function postoperatively. This risk factor is believed to be related to a morphologic deterioration of the corpus cavernosa, most commonly seen with aging (Montorsi, Briganti, Salonia, Rigatti, & Burnett, 2004).

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### Do You Have an Interesting Clinical Experience to Share?

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