

# NIH Clinical Center Patient Education Materials

## Prostate Cancer and Life after Surgery: Education Regarding Prostate Surgery and Side Effects of Surgery

Having prostate surgery may cause fears or anxieties about incontinence, sex, and intimacy. Many of these anxieties can be relieved by understanding procedures and what to expect. Please review this document, and ask any questions that you may have. We hope to address your questions and help you deal with any life changes following treatment. The NIH offers counseling and support services, including those in the Recreation Therapy Department.

We ask that you bring this document with you to the NIH Clinical Center when you are admitted for treatment. Thank you for the opportunity to participate in your care.

### Introduction

The prostate is a gland that surrounds the urethra in men. It makes semen, the fluid that carries sperm. As a man ages, the prostate gland often becomes enlarged, and the risk for prostate cancer increases. Prostate cancer often has no symptoms.

There are many treatments for prostate cancer, including hormone therapy, chemotherapy, radiation, and surgery. Each treatment option will be discussed with you by your doctor to determine the best plan for you. This document will discuss prostate cancer, its surgical treatment (called radical prostatectomy), and life after surgery.

### Prostate surgery

There are different types of prostatectomy surgery. Examples of surgical approaches taken at the NIH include:

- **Open Radical Retropubic Prostatectomy** is performed from an incision made from the belly button to pubic bone.
- **Robotic-Assisted Laparoscopic Radical Prostatectomy** is performed by making numerous small incisions in the abdomen and using a video camera and long tools to reach the surgery site. A robotic system is used to assist the doctors with a laparoscopic surgery. The robotic-assisted laparoscopic method is used at the NIH Clinical Center.
- **Radical Perineal Prostatectomy** is performed by making an incision between the scrotum and anus.

In addition to the prostate gland being removed, the attached seminal vesicles (glands that produces semen) and /or lymph nodes (part of the immune system that cancer can spread to) are also removed. The urethra (tube connecting the bladder to the penis) is cut to remove the prostate but then re-attached. This allows for normal urine passage and urine control following surgery.

Almost always, the doctors are able to perform a nerve-sparing radical prostatectomy; this allows the nerves controlling erections to be left in place and supports the return of sexual function. This type of surgery is not possible for all men. Even if the nerves are left intact, the goal is to return to the level of sexual function that you had prior to the surgery; it is not likely to improve your sexual function.

Risks of surgery include: blood clots, heart attack, stroke, infection, and blood loss. Some risks of a prostatectomy include loss of control over bowels or bladder (bowel or urinary incontinence), difficulty with erections (impotence), and injury to organs /nerves in the region. Your doctor will discuss all risks and potential outcomes prior to your surgery. You are encouraged to ask questions to help you understand the procedure and potential risks.

### **Preparing for surgery**

There are some medications that should not be taken before surgery, such as aspirin, Coumadin, or blood thinners. Please review all of your medications with your doctor, including vitamins and over-the-counter medications. Ask your doctor if you should make any changes during the week leading up to surgery. Kegel exercises are important to learn before surgery, because performing kegel exercises after surgery will help you regain urinary control. Kegels are addressed in the “After Surgery” section of this document.

The night before surgery, you will not be allowed to eat or drink anything except for the medications given to you by your nurse. You may be given medications to empty your bowels the night before your surgery.

### Sperm banking and harvesting

Prostate cancer treatments can impair a man’s ability to father children naturally. Some men choose to preserve and store their sperm for future use. There are numerous commercial sperm banking companies that preserve and freeze sperm until they are needed. If you, or your partner, are considering biological children in the future, sperm banking may be a good option. Sperm harvesting, extracting sperm directly from the testicles, might be an option after surgery. After harvesting sperm from the testicular tissue, a single sperm is injected into a female’s egg(s); and the resulting embryo is implanted into the woman’s uterus. Please discuss sperm banking or harvesting with your doctors before your cancer treatment begins.

### **After surgery**

#### Ambulation, breathing, and diet

Within a few hours after surgery, you will need to get out of bed and walk around. Ambulation, moving around in bed, and wearing compression stockings, help prevent blood clots. Also, you may get an injected medication to help prevent blood clots. To prevent pneumonia, you will be encouraged to use an Incentive Spirometer (a device that encourages you to take deep breaths). Your nurse will teach you how to use the Incentive Spirometer and will help you out of bed. You should walk at least 3-4 times a day starting the first day after surgery. You will likely resume a regular diet by the next day. Following minimally-invasive robotic-assisted prostatectomy, you may be well enough to go home 1-2 days following surgery.

#### Foley catheter and scrotal edema

A Foley catheter is a tube that is inserted through the penis into the bladder to drain urine into a bag. When you leave the operating room, a Foley catheter will be in place. The catheter is necessary to allow healing of the urethra that was cut during surgery. It is common for the urine draining into the Foley bag to be blood-tinged. The appearance of blood in urine will diminish within hours to days. Alert your nurse if you feel uncomfortable or urine stops draining. The informational sheet called “Foley Catheter Care” will instruct you about cleaning and care. The catheter will stay in place for approximately one week and will be removed by your nurse or doctor during a follow-up visit.

Occasionally, there is urine leakage from the penis around the Foley catheter. It may be necessary to wear an absorbent pad to manage leakage. Also, there may be some urine leakage from the penis after the Foley catheter is removed. Full urinary control may take weeks or months to regain, and, rarely, incontinence (the inability to control urination) persists. Absorbent pads or briefs will be necessary until full control of the bladder is obtained. There are many products, specifically designed for men, available to manage leaking or incontinence. These products can be found at most grocery or pharmacy stores. There are other treatments to help with incontinence, so make sure to talk to your health care provider about these options.

Following surgery, scrotal or penile swelling may occur. If this does happen, let your nurse know. To ease your discomfort and lessen swelling, a scrotal support may be used. While lying or sitting, a rolled blanket or towel can be placed under the scrotum for support. While standing/walking you can use a scrotal support similar to a jock-strap; these come in different sizes and will be provided to you by your health care team.

### Drain and incisions

Sometimes a drain is necessary to help remove extra fluid. The drain most commonly used is a Jackson Pratt drain (JP drain). Typically, the drain is located low on the abdomen. Your nurse will manage the drain and, if necessary, will teach you how to care for it. A dressing is placed around the drain and changed when soiled, or at least daily. Often, the drains are removed after a few days, but, occasionally, the drain will need to stay in place longer. You will be instructed on how to care for the drain if you are discharged from the hospital before the drain is removed. The document “How to Care for the Jackson-Pratt Drain” will be provided if necessary. The incisions made during a prostatectomy are usually closed with surgical glue or steri-strips. During washing, do not scrub the incision sites. Monitor the wounds frequently for signs of infection, including redness, swelling, increased pain, or fevers.

### Pain management

Medications will be prescribed to manage pain after surgery. These medications may be taken by mouth or given directly into your veins (intravenously). Some medications are given on schedule, while other medications will not be given unless you alert your nurse that you are in pain. To manage pain well, you need to let your nurse know that you are having pain before your pain becomes severe. Pain is easier to manage while your pain level is still low. It may not be possible to be free of pain, but it is possible to have your pain be tolerable. A stool softener may be prescribed along with the pain medications, because narcotic pain medications can cause constipation.

Bladder spasms or painful urination are common for some men after prostatectomy surgery. There is specific medication to treat bladder spasms that can be prescribed. Please alert the medical team if you are having discomfort.

### Activity restrictions & kegel exercises

Some activities will be limited following surgery so that your surgical site can heal. Do not lift anything over 10 pounds for 4-6 weeks. Do not submerge your surgical wounds in a bath, hot tub, or pool. Do not drive while the Foley catheter is in place or while taking narcotic pain medications.

Perform kegel exercises both before and after surgery. This exercise strengthens your pelvic floor. Both men and women may benefit from kegel exercises, because it may help with urinary and bowel control. Ideally, you should learn how to perform kegels correctly and practice before your prostate surgery. Please refer to the document “Pelvic Floor Muscle Training Exercises” by Medline Plus.

### Erectile Dysfunction

Erectile dysfunction (ED) is common after prostate surgery. The ability to have an erection after surgery depends on several factors: age, overall health, ability to achieve and maintain an erection before surgery, and if the nerves need to be removed during surgery. The nerves and blood vessels that control erection are located near the prostate. Most of the time, depending on the severity of disease, doctors are able to leave those nerves and vessel intact, which may allow for the possibility of natural erections.

Treatments for ED are aimed at returning you to your prior level of sexual ability and likely will not go beyond your baseline ability. There are many ways to treat erectile dysfunction, including a variety of medications, including oral pills, injections, urethral suppositories, vacuum erection devices (VED), and, if necessary, penile implants. It is important for you to discuss options with your doctors. Insurance may cover some of the treatments for ED.

You may be discharged with a prescription for sildenafil (Viagra), tadalafil (Cialis), or other erectile dysfunction medication. These medications, used daily for a few weeks to months after surgery, improve blood flow to the penis and are thought to aid in the long-term recovery of an erection. However, it is possible that erections will take up to a year or even longer to return following prostatectomy. ED drugs should not be used before the Foley catheter is removed; please follow the directions provided on the medication.

### Intimacy and sexuality

Even if erections are not possible for you following surgery, intimacy with your partner can be achieved in a variety of different ways. People usually think that erections, ejaculation, and orgasms are all linked, but they are really different.

Three separate sexual functions typically occur with penile genitalia: erection, ejaculation, and orgasm. Erection occurs when blood flow increases to the penis following mental or manual stimulation, and the shaft becomes engorged and stiffened or “hard”. Ejaculation is the expulsion of fluid from the urethra by internal organs (the prostate and the seminal vesicles). Men have dry ejaculations after prostatectomy, because fluid-filled ejaculations are no longer possible due to removal of the prostate and surrounding glands. However, it is still possible to feel pleasure and orgasm. Orgasm can be obtained, as stimulation still sends pleasure signals to the brain. Some men report a lessened sensation of orgasm. Occasionally, men report pain during orgasm, and, sometimes, urination occurs with orgasm (this is called climacturia). There are treatment options if these side effects occur.

Changes to genitalia size and function may occur after prostate surgery. Penile retraction or shortening may occur, but this may resolve within a few years after surgery. The nerves and blood vessels that supply the penis are located near the prostate. Destruction or disruption of nerves, blood vessels, and muscular tissue can occur during surgery.

You are encouraged to discuss sex and intimacy with your doctor, because there are medications that can affect your pleasure. It is important to remember that many of these side effects lessen over time. The American Cancer Society has information available on their website called “Sexuality for the Man with Cancer.”

### **Conclusion**

Having prostate surgery can impact your life. Please notify your nurse or doctor if you have questions, concerns, fears, or anxieties; also make sure to notify them of pain or other physical symptoms. The NIH Clinical Center has numerous resources that can be utilized. The goal of prostate surgery is to cure your cancer.

This information is prepared specifically for persons taking part in clinical research at the National Institutes of Health Clinical Center and may not apply to patients elsewhere. If you have questions about the information presented here, talk to a member of your health care team. Products/resources named serve as examples and do not imply endorsement by NIH. The fact that a certain product/resource is not named does not imply that such product/resource is unsatisfactory.

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