Being diagnosed with prostate cancer can be emotionally challenging. It is important to learn as much as possible about your cancer and available treatments. There is more than one effective treatment for prostate cancer and the type of treatment or treatments you choose depends on a variety of issues including your age, overall state of health, stage of disease, tumor characteristics and patient preference. Prostatectomy (surgery to remove the prostate) can be an effective way to control prostate cancer.

The purpose of this educational material is to:
1. Increase the patient’s and loved ones’ knowledge about robot-assisted surgery to treat prostate cancer.
2. Reduce anxiety about the surgery.
3. Prevent post-operative complications.
4. Help with physical and emotional recovery after the prostatectomy.

THE BASICS

The prostate is a small gland, about the size of a walnut, located in a man’s pelvis that has two functions. First, the prostate gland, along with the seminal vesicles, produces some of the fluid that makes up semen. Second, it is involved in urine control (continence). The prostate is near several structures including the rectum (lower portion of the large bowel) and the bladder. The urethra (tube that carries urine from the bladder to the outside of the body) passes through the middle of the prostate. The nerves that control a man’s ability to have an erection run very close to the prostate.
There are three primary goals of robot-assisted laparoscopic radical prostatectomy:

1. To remove all the prostate cancer, which includes removal of the prostate gland and seminal vesicles that are adjacent to the prostate gland. The seminal vesicles are removed because a cancer that starts in the prostate can easily spread to these attached glands. Removal of the prostate gland and seminal vesicles means that you will no longer have an ejaculation (release of fluid) during orgasm and you will no longer be able to father children.

2. To minimize damage to nerves adjacent to the prostate that control erections. Sometimes one or both of these nerve bundles must be surgically removed to make sure all of the prostate cancer cells are removed.

3. If indicated, to remove lymph nodes adjacent to the prostate to find out if any cancer cells have spread to them.

It is important to have a full discussion with the surgeon about the potential benefits as well as the possible adverse side effects of prostatectomy before the surgery.

DEFINITIONS

Prostatectomy—surgery to remove a man’s prostate. Prostatectomy can be accomplished with a long, open incision in the lower abdomen or using a laparoscope and several smaller incisions.

Laparoscopic surgery—Also sometimes called “minimally invasive” or “bandaid” surgery. This technique uses a laparoscope, which is a small, thin telescopic rod that includes a digital camera and light to see the patient’s internal organs and structures. The laparoscope is inserted through a small (approximately ½ inch) incision in the abdomen. Five additional incisions are made for insertion of instruments to separate and grasp tissue, flush the operative cavity with saline, and to control bleeding.
Before the laparoscope can be inserted, the abdominal cavity is inflated using carbon dioxide gas. The gas creates just enough space between the abdominal organs to permit easier insertion of the laparoscope and a better view of the internal structures. After surgery, the carbon dioxide is safely absorbed by the body and exhaled by the lungs.

Recovery from laparoscopic surgery is quicker and less painful compared to open prostatectomy because, although there are more incisions, they are much smaller in size resulting in less trauma to the body.

Robot-assisted surgery—a computer and robotic system that provides a better view of the body’s structures and allows the surgeon to more precisely manipulate tissue compared to laparoscopic surgery without the robot. The robot consists of several mechanical “arms” that control special instruments that mimic normal hand movements but with increased accuracy and dexterity. The surgeon sits at a computer console next to the patient in the operating room and directs the activity of the mechanical arms and the attached instruments. You can learn more about the da Vinci™ Robotic System on the Internet at www.davincisurgery.com.

PRE-SURGERY PLANNING

Be sure to take a written list of all your medicines including the dose, schedule and why you are taking the medicine when you go to your appointment with the surgeon. Ask the surgeon about which medicines you may or may not take in the days before surgery. If you take blood thinning medicines they will need to be stopped before surgery. Check with your physician about how soon to stop taking the medication. If you are unsure any of your current medicines are blood thinners, the surgeon’s office staff has a list that you can review.

In addition to a medical history, the surgeon will need to know if you any allergies.
After you have had your first appointment with the surgeon and you have decided to have robot-assisted laparoscopic prostatectomy, the surgeon’s office staff will identify a surgery date, time and hospital where the surgery will occur. The surgeon’s office staff will notify you via telephone about when and where to report for surgery.

About one week before your scheduled surgery you will have a final planning meeting with the surgeon. This meeting will provide a time to discuss more specifically what type of surgery is planned, the purpose of the surgery, pre-operative preparation, and what to expect after surgery. It is helpful if your support person who will be caring for you at home after surgery comes with you to this meeting. It is a good idea to bring a list of questions and a way to take notes that you can review later.

The surgeon’s office will give you an instruction sheet listing pre-surgery medical work-up, like blood work, chest x-ray and EKG (heart test) that you will need to have done before the day of surgery. Plan to see your primary physician at least one week before surgery for your pre-surgery medical work-up.

The surgeon’s office will give you prescriptions for the following medicines that you should have filled at your pharmacy before the day of surgery:

1. Vicodin® (hydrocodone and acetaminophen)—use Vicodin® as needed to control pain not relieved by ibuprofen.
2. Colace® (docusate)—take one capsule two times per day in the morning and evening to prevent constipation and bloating. The combination of surgery, anesthesia and pain medication (especially Vicodin®) results in temporary bowel difficulty in most patients. Stop taking the docusate when your bowel movements become normal.
3. Lidocaine jelly—apply a generous amount, as needed, to the tip of the penis where the catheter is inserted. The jelly will lubricate and numb the area.
4. Cipro® (or other antibiotic if you are allergic)—take one tablet two times per day (early in the morning and late in the evening so that the doses are about 12 hours apart) for as long as the urinary catheter is in place to decrease the chance of infection. Antacids that contain magnesium or aluminum can interfere with the absorption of Cipro® so if you are using these types of medications, take the Cipro® at least 2 hours before or at least 6 hours after taking an antacid.

In addition, it is suggested that you have ibuprofen, e.g., Motrin®, Advil®, which is available over the counter at any drug store, on hand for use after surgery.

You should pre-register at the hospital 3 to 10 days before your surgery date so that your check-in on the day of surgery goes smoothly. The pre-registration staff person will tell you what time to be at the hospital on the day of the surgery and what hospital department to report to.
THE DAY BEFORE SURGERY

Eat and drink only clear liquids. Good choices include:

- Jello\textsuperscript{TM} (flavored varieties are fine as long as they do not contain bits of fruit or fruit pulp)
- Juices like apple, grape and cranberry that do not contain pulp
- Chicken, beef or vegetable broths (bouillon or consommé)
- Strained lemonade or fruit punch
- Clear sodas and sports drinks
- Honey
- Ice pops without bits of fruit or fruit pulp
- Tea or coffee without milk/cream

At 10:00 A.M. drink one bottle of magnesium citrate (any flavor; available without a prescription at any drugstore). The magnesium citrate might taste less bitter if it is chilled. Magnesium citrate is a powerful laxative so be sure to stay home with ready bathroom access after drinking it. You should feel a strong urge to empty your bowels 30 minutes to two hours after drinking the magnesium citrate.

Nothing to eat or drink after midnight the night before surgery. Please discuss with your surgeon about taking your routine cardiac and blood pressure medicines with a sip of water the morning of surgery. Usually patients taking oral diabetes medications should not take them the morning of surgery. Discuss this with the physician who prescribed your diabetes medication. If you are on insulin, consult your Endocrinologist or the physician who has prescribed the insulin.

ON THE DAY OF SURGERY

On the morning of surgery, report to the hospital admitting department at the scheduled time. When you arrive at the pre-surgery area, a nurse will take your vital signs, complete a pre-surgery health review, start an IV in your arm, and provide teaching about post-surgery pain control. You will sign an informed consent (written permission to perform the planned surgery). The anesthesiologist who will give you anesthesia to put you to sleep during surgery will talk with you and answer any questions about anesthesia.

Your family can stay with you while you are in the pre-op area. Once you are moved to the surgery suite, your loved ones should wait for you in the family surgery waiting area. The surgeon will inform your loved ones when your surgery is complete and you have been moved to the recovery room.

IN THE RECOVERY ROOM

You will awake up in the recovery room where the nurses will monitor you with frequent vital signs. You will have an IV line to receive fluids and medications for pain and to prevent nausea, as needed. Oxygen may be administered by a small nose tube or small mask and a device will be attached to your finger to measure oxygen levels in your blood. EKG leads may be attached to your chest to monitor your heart rhythm. You should immediately tell the nurse if you are in pain, have nausea, do not feel well or you experience any other unexpected symptoms.
You will have a urinary catheter (Foley) in place to collect all the urine from your bladder. The catheter is held in place by a small balloon in the bladder, which can cause you to feel the urge to urinate. You might also have a pelvic (Jackson-Pratt) drain inserted through a small incision in your lower abdomen.

When you are ready to leave the post-surgery recovery room, you will be taken by gurney to an inpatient hospital room. Your family will be notified when you are settled in your room so that they can visit.

POST-SURGERY RECOVERY IN THE HOSPITAL

You will remain in the hospital for one night. Frequent deep breathing, coughing, turning and use of the incentive spirometer at least 10 breaths per hour while you are awake will help prevent pneumonia.

It is important that you get out of bed and walk as soon as possible, usually starting the day of surgery. Nursing staff will assist you with this.

Some patients experience nausea and/or vomiting after anesthesia. Anesthesia-related nausea and vomiting usually does not last for more than 24 hours after surgery. If you feel nauseated, tell the nurse so you can be given anti-nausea medicine ordered by your surgeon.

All medicines that you normally take at home will be provided for you by the hospital nursing staff, as well as any other medicines you need for pain, nausea or any other post-surgery issue that may arise. When you are discharged, you will receive printed instructions from your surgeon about re-starting your usual medicines at home.

Pain after laparoscopic prostatectomy is usually mild and well controlled with a non-narcotic pain medication, e.g., ketorolac (Toradol®), given by IV. Don’t wait for pain to become too severe before you ask for medicine from the nurse.

The urinary catheter can irritate the tip of the penis—your surgeon will have ordered Lidocaine Jelly that you can apply as needed.

Before you leave the hospital, the nurse will give you two urine collection bags and teach you how to connect and disconnect them from the Foley catheter. The smaller bag is a leg bag that can be worn under trousers during the day. The larger bag is for use at night. Feel free to change the bags as needed. At night it is important to connect the larger bag and position it below the level of your bladder to encourage proper drainage of urine. Be sure to empty the bags before they are full to prevent the urine from backing up into the bladder, which could delay healing.
You might have a pelvic drain in your lower abdomen that removes excess fluid and blood that could collect in your pelvis and increase the risk of a post-surgery infection. The small plastic bulb at the end of the drain provides mild suction to the surgical area. To work correctly, the bulb must remain flat at all times. The pelvic drain may be removed before you are discharged from the hospital, or, depending on the amount of drainage, kept in place when you go home and be removed in the surgeon’s office in about a week.

If you will be going home with the pelvic drain, the hospital nurse will teach you and your caregiver how to take care of it including emptying the collection bulb and measuring the amount of drainage. You will also be given a printed instruction sheet on drain care.

If you have trouble sleeping at night after the surgery, ask the nurse for a sleeping pill which has already been ordered by your surgeon.

Before you leave the hospital, be sure you know when your follow-up appointment in the surgeon’s office is scheduled. At that appointment you will learn the results of the pathology report (analysis of tissue obtained during the surgery), and the Foley and pelvic drainage catheters will be removed.

RECOVERY AT HOME

Most patients who undergo laparoscopic prostatectomy are ready to go home the day after surgery. The surgeon will see you in the morning to make sure you are well enough to go home, answer any questions, and confirm your follow-up appointments in the office.
Activity level and return to work

It is normal to have a general feeling of tiredness or low energy for days to weeks after surgery. Your normal level of energy will gradually return but you will probably need to rest more for the first week or so after surgery.

To protect healing tissues, do not engage in any vigorous activity, e.g., running, golf, cycling, exercise or lifting anything that weighs more than 10 pounds, for the first 4 weeks after surgery.

You may drive a few days after surgery if you feel up to it. Do not drive as long as you are taking Vicodin® since it may cause you to be less alert.

You may return to work and resume most duties after 2-3 weeks, but you can stay off work for a month, if needed.

Foley catheter

You will go home with the urinary catheter in place. The catheter protects newly stitched tissues so they heal properly and it is very important that the catheter stays in place until removed by the surgeon in about 6-10 days.

- **Protect the catheter from tugging or friction.**
- **Notify the surgeon’s office immediately if the Foley catheter comes out, i.e., no longer inserted in the penis, or stops draining.**
- **Never allow a non-urologist (even if he/she is a physician) to replace the Foley catheter.**

Pain and catheter irritation

The amount of pain you feel should decrease as each day passes. Ibuprofen (Motrin®, Advil®) are good first choices for pain control. Since the dose of ibuprofen is based on body weight, ask your surgeon what amount you should take—often 3 to 4 tablets is the most effective dose. It is important to keep in mind that pain medicines taken by mouth typically take 30-45 minutes to start working. Ibuprofen should be taken with food or milk.

Pain that does not go away after taking pain medicine or is new, increased or seems unusual should be reported to your surgeon promptly. You received a prescription for Vicodin® at your pre-op visit—use this medicine for pain that does not go away after taking ibuprofen. Be aware that Vicodin® has a high risk of causing constipation and bloating, which can worsen normal post-surgery discomfort, so avoid the use of narcotic pain medicines unless necessary.

Apply the Lidocaine Jelly to the tip of your penis if you have catheter irritation.
Lower abdominal drain

To work correctly, the bulb on the drain must remain flat at all times. Empty the drain at least twice daily or more often if the bulb is not flat. Do not let the drain dangle from your wound—place it in your pocket or pin it to clothing (without causing a hole in the tube).

To empty the drain:
1. Wash your hands with soap and water
2. Remove the plug at the top of the drain, then turn the drain upside down and squeeze into the plastic cup given to you by the hospital nurse, until empty. The drainage will be bloody on the 1st day but will gradually become pinkish then clear yellow as each day passes. Drainage should not be foul-smelling or cloudy.
3. Roll the drain up, starting at the bottom to squeeze all the air out. While keeping the bulb rolled up, reinsert the plug.
4. Measure the amount of drainage and keep a written record to give to the surgeon at your post-surgery follow-up appointment in his/her office.
5. Wash your hands after emptying the drain.

Constipation

Expect to have a bowel movement within the first two days after surgery. To prevent constipation, you will receive a prescription for docusate (DOS®, Colace®, others). Take one capsule twice a day until bowel movement pattern returns to normal. Stop docusate when your bowel pattern returns to normal or if you develop diarrhea.

Additional ways to prevent constipation include drinking plenty of fluids, being as active as possible, and eating whole grains, fruits and vegetables.

If constipation occurs, add prune juice or 2 tablespoons of Milk of Magnesia daily. If you still do not have a bowel movement, drink 150 ml (about half a bottle) of magnesium citrate.

Prevention of infection

You will receive a prescription for ciprofloxacin 250 mg (or other antibiotic if you are allergic). Take one tablet twice daily about 12 hours apart as long as the Foley catheter is in place.

Your incisions

Your incisions are closed with dissolving sutures. Steri-strips® cover each incision to protect from infection. The Steri-strips® will fall off on their own after about two weeks, or you can gently remove them.

You can shower 48 hours after surgery. It is okay for soap and water to run over the incisions but do not scrub them. Do not use alcohol or peroxide to clean the incisions, and do not apply any creams, lotions or ointments to the incisions.
It is normal to have mild skin redness and some bruising around the incisions. A small amount of bloody or clear drainage is also normal. Any sign of infection—pus, increased pain, swelling, redness, or fever—should be reported to the surgeon promptly.

**Scrotal care**

Although rare, about 5% of men experience more than normal swelling of the scrotum after surgery. This swelling is not harmful and usually goes away without treatment in a week or so. If you notice scrotal swelling, elevate your scrotum on a towel when you are lying down to encourage the swelling to go away more quickly. Wearing an athletic supporter or supportive underwear during the day can also help.

**When to seek immediate medical attention**

Although post-surgery problems from robot-assisted laparoscopic surgery are rare, if any of the following occurs, call the surgeon’s office or go to the closest emergency room **IMMEDIATELY**:

- Foley catheter is not draining well or comes out
- Fever > 102 degrees Fahrenheit
- Nausea that lasts for more than 24 hours or vomiting more than a few times or that interferes with your ability to drink a normal amount of fluids
- Increasing pain in the abdomen (belly) or flank (side) area
- Chest pain, difficulty breathing or feeling short of breath

**FOLLOW-UP OFFICE VISITS**

1. About one week after surgery—for removal of the Foley and pelvic catheters, and to talk about the pathology findings. Since you are likely to experience some urine leakage after the Foley catheter is removed, be sure to bring an adult incontinence pad or underwear, e.g., Depend®, to the appointment.
2. Six weeks after surgery—to see how well you are recovering.
3. Three months after surgery—for your first post-surgery PSA.

Depending on the pathology findings from your prostate tissue, a course of radiation treatment to the prostate “bed” may be advised. The surgeon will refer you to a Radiation Oncologist to talk about this treatment option should this rare situation arise.

**LONG-TERM RECOVERY**

It is normal to have an emotional reaction before and after prostate surgery. It is common to grieve for the loss of ejaculation during sexual intercourse. Other concerns include loss of ability to have an erection, difficulty controlling your urine, and feeling like “less of a man.” It is important to keep in mind that emotional adjustment to any body change takes time and patience.
Urine control

It is normal to experience urine leakage after the Foley catheter is removed. Expect to wear an incontinence pad or underwear for several weeks to months. It is important not to get discouraged since it can take up to a year for some men to regain the ability to completely control their urine.

Expect more urine to leak when you are standing, coughing, or straining, e.g., lifting something heavy. You should experience better ability to stay dry when you are lying down/sleeping. Mild urine leakage with straining may continue for years after surgery.

You may leak a small amount of urine during orgasm, but this usually occurs during the first few months after surgery and goes away as you finish healing.

Kegel exercises can strengthen the pelvic floor muscle group. When strong enough, this muscle group can prevent urine from leaking out of the bladder. Practice finding these muscles before surgery by stopping your urine stream while you urinate. Strengthen these muscles by holding tight for 5 seconds, then relax. Repeat this exercise 10 times, at least two times per hour. Gradually work up to holding your pelvic floor muscles tight for 10 seconds. Start these exercises before surgery and resume them after surgery.

Discuss how well you are regaining urine control with your surgeon. Fortunately, early detection when a prostate tumor is small and use of robot-assisted prostatectomy allows most men to regain urine control and less than 1% of men need additional help to manage urine leaking. Post-surgery radiation to the prostate bed increases the risk of urinary control problems.

Sexual function

The ability to have an erection after prostate surgery depends on a variety of factors including the quality of a man’s erections before surgery and whether or not the nerves near the prostate were removed during surgery. Return of sexual function is highly individual—some men regain all or most of their pre-surgery ability to have an erection as long as one of the nerve bundles remains intact. Other men never regain strong enough erections for penetration even when the nerve bundles remain intact.

It usually takes 6 to 18 months after prostate surgery to regain erections that are firm enough for penetration. This is an average—some men regain their erections sooner, and some take longer than 18 months.

Medications like Viagra®, Levitra® and Cialis® can help with the return of erections. Your surgeon will give you a prescription for one of these medicines as long as you do not have any medical conditions that make it unsafe to use them. These medicines are not effective without sexual stimulation and their use may not result in an erection firm enough for penetration. But since these medications bring more blood to the penis even without an erection, their use is encouraged after surgery since they might hasten recovery of the ability to have an erection.
It is important to keep in mind that everyone’s sex life evolves as we and our partners age and our health changes. Although you may have decreased erections after surgery and no longer have an ejaculation, you can continue to experience sexual pleasure and orgasm.

Discuss your concerns about sexual function with your surgeon. In addition to the medicines listed above, there are other ways to enhance a man’s ability to have an erection. You can find out more by keeping your surgeon informed about how well your erectile function is recovering.

COMMUNITY RESOURCES

South Bay Urology Center for Robotic and Laparoscopic Excellence. 20911 Earl Street Suite 140. 310-542-0199. www.southbayurology.com


Da Vinci™ robot system. www.davincisurgery.com


HOSPITAL CONTACT INFORMATION

Torrance Memorial Medical Center, 3330 Lomita Blvd, Torrance 90505
Pre-registration -- (310) 517-4754.

Providence Little Company of Mary Medical Center, 4101 Torrance Blvd,
Torrance 90503
Pre-registration –(310) 303-6160.