



## JAMES BUCHANAN BRADY UROLOGICAL INSTITUTE

### NERVE-SPARING LAPAROSCOPIC RADICAL PROSTATECTOMY

## OUR SURGEONS

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## APPOINTMENTS

To make an appointment with Dr. Christian Pavlovich at Johns Hopkins Bayview Medical Center, please contact Ms. Wanda Walker, **410-550-0013** or call the appointment line at **410-550-7008**.

For Dr. Mohamad Allaf call **410-955-6100**.

A brief phone interview will be conducted during which time information regarding your age, PSA, biopsy results will be obtained. A formal consultation date will then be arranged. Please bring all pathology and biopsy reports, PSA values, and your local urologist's last notes to your appointment or have them faxed to our office prior to your consultation appointment.

**Your original biopsy slides MUST be reviewed by our pathology department prior to your visit.**

Please have your local urologist's office request your slides from the original lab and forward them to the address below via UPS, Fed-Ex or DHL. The slides will be automatically sent back to the original facility from which they came after our review. The Johns Hopkins report should be available for review at the time of your visit.

For Dr. Pavlovich:  
**Johns Hopkins Bayview Medical Center**  
4940 Eastern Ave  
Dept of Pathology Suite AA-153

Baltimore MD 21224  
Attn: Ms. Dean

For Dr. Allaf:  
**Johns Hopkins Medical Laboratories**  
1620 McElderry Street  
Reed Hall Room 315  
Baltimore, MD 21205  
Phone 410-955-2405  
Fax 410-614-7712

For **directions to Johns Hopkins Hospital and Johns Hopkins Bayview Medical Center** please [click here](#)

## PRIOR TO THE SURGERY

### What to expect during your preoperative consultation

During your preoperative consultation your surgeon will review your history, medical records, PSA values, and any available radiology films or reports.

You will then undergo a full physical examination followed by a discussion of treatment options for your stage of prostate cancer.

Your glass pathology slides will be submitted for review to the Johns Hopkins Pathology Department. Results of this review require 1-2 weeks after which the slides will automatically be sent back to the original facility from which they came.

If your surgeon decides that you are a candidate for laparoscopic prostatectomy, you will then meet with a Patient Service Surgery Coordinator. Any scheduling changes can be made directly through the OR coordinator at **410-955-4048** for Johns Hopkins patients or Ms. Chanda Nelson at **410-550-0412** for Johns Hopkins Bayview patients. For Bayview patients, all billing and insurance inquiries are handled by Ms. Laura Wheeler at **410-550-3339**.

**Note:** It is the responsibility of the patient to inform the OR coordinator or Ms. Nelson of any scheduling changes/cancellations at least 4 weeks in advance of the surgery date out of courtesy to your surgeon, the operative staff, as well as other patients.

### What to expect prior to the surgery

Since insurance companies will not permit patients to be admitted to the hospital the day before surgery to have tests completed, you must make an appointment to have pre-operative testing done at your family doctor or primary care physician's office within 1 month prior to the date of surgery.

**For Johns Hopkins Hospital Patients:** These results need to be faxed by your doctor's office to the Pre-operative Evaluation Center at **443-287-9358** two weeks prior to your surgery. Please call The Documentation Center at **410-955-9453** two weeks before your surgery date to confirm that this information was received.

**For Johns Hopkins Bayview Medical Center Patients:** These results need to be faxed by your doctor's office to the Pre-operative Evaluation Center at **410-550-1391** one week prior to your surgery. Please call The Documentation Center at **410-550-2495** before your surgery date to confirm that this information was received.

Once your surgical date is secured, you will receive a form along with a letter of explanation to take to your primary care physician or family doctor in order to have the following preoperative testing done prior to your surgery.

- Physical exam
- EKG (electrocardiogram)
- Urinalysis

## Preparation for surgery

### Medications to Avoid Prior to Surgery

• Aspirin, Motrin, Ibuprofen, Advil, Alka Seltzer, Vitamin E, Ticlid, Coumadin, Lovenox, Celebrex, Voltaren, Vioxx, Plavix and some other arthritis medications can cause bleeding and should be avoided 1 week prior to the date of surgery (Please contact your surgeon's office if you are unsure about which medications to stop prior to surgery. Do not stop any medication without contacting the prescribing doctor to get their approval).

### Bowel Preparation and Clear Liquid Diet

- Drink only clear fluids for a 24-hour period prior to the date of your surgery. Please follow the diet below.
- Drink one bottle of magnesium citrate (can be purchased at your local pharmacy) the afternoon before your surgery.
- Do not eat or drink anything after midnight the night before the surgery.

### Clear Liquid Diet

Remember not to eat or drink anything after midnight the evening before your surgery. Clear liquids are liquids that you are able to see through. Please follow the diet below.

- Water
- Clear Broths (no cream soups, meat, noodles etc.)
  - Chicken broth
  - Beef broth
- Juices (no orange juice or tomato juice)
  - Apple juice or apple cider
  - Grape juice
  - Cranberry juice
  - Tang
  - Hawaiian punch
  - Lemonade
  - Kool Aid
  - Gatorade
- Tea (you may add sweetener, but no cream or milk)
- Coffee (you may add sweetener, but no cream or milk)
- Clear Jello (without fruit)
- Popsicles (without fruit or cream)
- Italian ices or snowball (no marshmallow)

## THE SURGERY

### The Operation

Nerve-sparing laparoscopic radical prostatectomy is a well established procedure at Johns Hopkins and is performed with the assistance of an experienced and dedicated laparoscopic surgical team including nurses, anesthesiologists, operating room technicians, many of whom you will meet the day of surgery.

Laparoscopic prostatectomy is performed through 4 to 5 small 1-cm keyhole incisions across the mid abdomen (Figure 1). Through these small incisions, your surgeon uses fine laparoscopic instrumentation to precisely dissect the prostate gland, seminal vesicles, and vasa deferentia from the urethra and bladder. The instruments can be placed transperitoneally (through the abdomen) or extraperitoneally (under the rectus muscles and in front of the bladder) depending on which approach is more suitable for the patient.

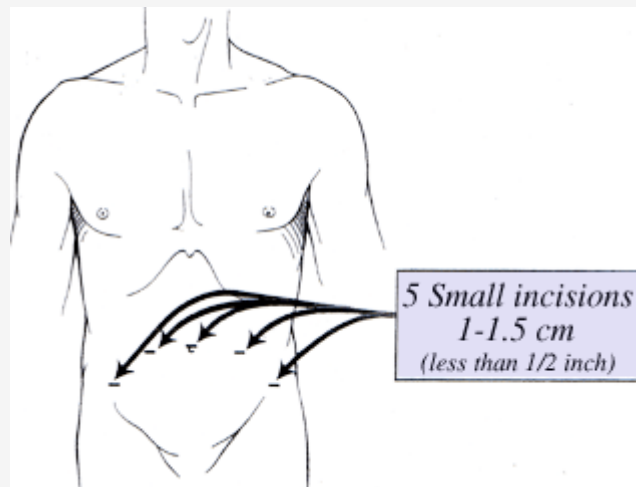


Figure1

This is in contrast to the conventional open radical retropubic prostatectomy where a lower midline abdominal incision is required for dissection and removal of the prostate gland.

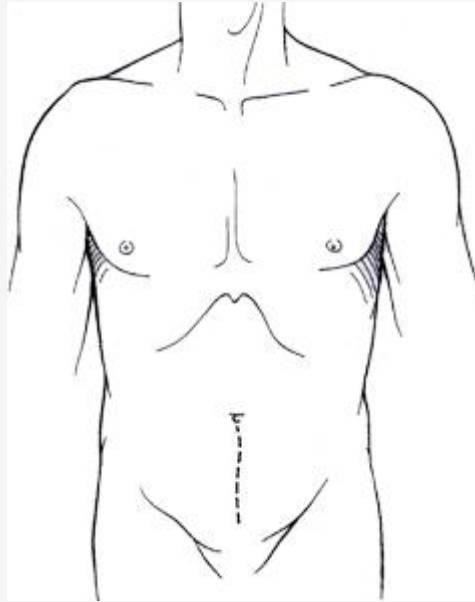


Figure2

The surgery is performed adhering to the same anatomic principles of open surgery, but without the surgeon's hands entering into the patient's body cavity. A robotic arm is also used to control the telescopic lens. The high-definition telescopic lens is attached to a camera device that projects the image onto a video monitor.

This provides the surgeon with excellent visualization and details of the prostate gland and the surrounding neurovascular structures, allowing for precise dissection of the prostate and suturing of blood vessels. Once the prostate gland is dissected free from the bladder, rectum, and urethra, it is placed in a small plastic bag and eventually removed by extending one of the keyhole incisions to accommodate the prostate. The bladderneck is sewn back to the urethra to restore continuity of the urinary tract using laparoscopic suturing techniques inside the body. A Foley catheter is placed through the penis to drain the bladder and allow healing of the bladder-urethra connection. In addition, a small drain is placed around the surgical site, exiting one of the keyhole incisions.

The length of operative time during laparoscopic prostatectomy can vary greatly (1.5 – 3.0 hours) from patient to patient depending on whether a pelvic lymph node dissection is performed and depending on the size of the prostate gland, shape of the pelvis, weight of the patient, and presence of scarring or inflammation within the pelvis due to infection or prior abdominal/pelvic surgery. Blood loss during laparoscopic prostatectomy is routinely less than 300 cc. Transfusions are almost never required. Donation of blood prior to surgery is not recommended.

## Potential Risks and Complications

Although this procedure has proven to be very safe, as in any surgical procedure there are risks and potential complications. The safety and complication rates are similar when compared to open surgery and robot-assisted laparoscopic radical prostatectomy. Potential risks include:

- **Bleeding/blood clots:** Although blood loss during this procedure is relatively low compared to open surgery, a

transfusion may still be required (in <1% of patients) if deemed necessary by your surgeon either during the operation or afterwards during the postoperative period. Blood clots forming in the leg and migrating to the lungs are rare but very serious conditions that may occur after any general surgery, particularly pelvic surgery such as radical prostatectomy with pelvic lymph node dissection. This potentially life-threatening complication occurs in some 1-2% of patients, and is generally treated with 6 months of anticoagulation.

- **Infection:** All patients are treated with intravenous antibiotics, prior to the start of surgery to decrease the chance of infection from occurring within the urinary tract or at the incision sites.
- **Adjacent Tissue / Organ Injury:** Although uncommon, possible injury to surrounding tissue and organs including bowel, vascular structures, pelvic musculature, and nerves could require further procedures. Transient injury to nerves or muscles can also occur related to patient positioning during the operation.
- **Hernia:** Hernias at incision sites occur extremely rarely, as the larger keyhole incisions are closed under direct laparoscopic view.
- **Conversion to Open Surgery:** The surgical procedure may require conversion to the standard open operation if extreme difficulty is encountered during the laparoscopic procedure (e.g. excess scarring or bleeding). This could result in a standard open incision and possibly a longer recuperation period but occurs in < 1% of cases.
- **Urinary Incontinence:** As in open surgery, urinary incontinence is common but usually self-limited following laparoscopic prostatectomy. Continence improves over time with the use of Kegel exercises, which help strengthen the urinary sphincter muscle.
- **Erectile Dysfunction:** Similar to open surgery, a nerve-sparing technique is attempted during laparoscopic dissection of the prostate gland unless there is obvious involvement of the nerve tissue by tumor. The return of erectile function following prostatectomy is a function of the age of the patient, degree of preoperative sexual function, technical precision of the nerve-sparing technique, and time.
- **Urethrovesical Anastomotic Leakage:** Transient small urinary leakage can occur at the connection between the bladder and urethra following radical prostatectomy and usually resolves without further intervention within a few days to up to a week. The urinary catheter will remain in place until the leakage has stopped.

## WHAT TO EXPECT AFTER SURGERY

### During your hospitalization

Immediately after the surgery you will be taken to the recovery room, then transferred to your hospital room once you are fully awake and your vital signs are stable.

- **Hospital Stay:** Length of hospital stay for most patients is 1 day (1 night included).

- **Diet:** You can expect to have an intravenous catheter (IV) overnight. (An IV is a small tube placed into your vein so that you can receive necessary fluids and stay well hydrated; in addition it provides a route to receive medication.) Most patients are able to tolerate clear liquids after surgery, and a regular diet by the following day. Once on a regular diet, pain medication will be administered by mouth instead of by IV or shot.
- **Post-Operative Pain:** Pain medication can be controlled and delivered by the patient via an intravenous patient-controlled analgesia (PCA) pump or by injection (pain shot) administered by the nursing staff. You may experience minor transient shoulder pain (1-2 days) related to the carbon dioxide gas used to inflate your abdomen during the laparoscopic surgery.
- **Bladder Spasms:** Bladder Spasms are commonly experienced as a moderate cramping sensation in the lower abdomen or bladder and are quite common after prostatectomy. These spasms are usually transient and often decrease over time. If severe, medications can be prescribed by your doctor to decrease the episodes of these spasms.
- **Nausea:** You may experience transient nausea during the first 24 hours following surgery, which can be related to the anesthesia. Medication is available to treat persistent nausea.
- **Urinary Catheter:** You can expect to have a urinary catheter (Foley) draining your bladder (which is placed in the operating room under anesthesia) for approximately 1-2 weeks after the surgery. It is not uncommon to have blood-tinged urine for a few days to a week after your surgery.
- **Pelvic Drain:** The pelvic drain is placed in the operating room and drains the pelvic space around the bladder-urethra anastomosis. This drain is usually removed prior to discharge when the drainage is minimal.
- **Fatigue:** Fatigue is common and should start to subside in a few weeks.
- **Incentive Spirometry:** You will be expected to do some very simple breathing exercises to help prevent respiratory infections by using an incentive spirometry device (these exercises will be explained to you during your hospital stay). Coughing and deep breathing is an important part of your recuperation and helps prevent pneumonia and other pulmonary complications.
- **Ambulation:** On the day after surgery it is very important to get out of bed and begin walking with the supervision of your nurse or family member to help prevent blood clots from forming in your legs. You can expect to have SCD's (sequential compression devices) along with tight white stockings on your legs to prevent blood clots from forming in your legs while you are lying in bed.
- **Constipation/Gas Cramps:** You may experience sluggish bowels for several days following surgery as a result of the anesthesia. Suppositories and stool softeners are usually given to help with this problem. Taking a teaspoon of mineral oil daily at home will also help to prevent constipation. Narcotic pain medication can also cause constipation and therefore patients are encouraged to discontinue any narcotic pain medication as soon after surgery as tolerated.

## What to expect after discharge from the hospital

**Pain Control:** You can expect to have some incisional discomfort that may require pain medication for a few days after discharge, and thereafter Tylenol should be sufficient upon returning home to control your pain.

**Showering:** You may shower at home. Your wound sites can get wet, but must be patted dry. Tub baths can soak your incisions and therefore are not recommended in the first 2 weeks after surgery. You may have adhesive strips across your incisions. They will either fall off on their own or can be removed in approximately 5-7 days.

**Incisions and suture:** Your incisions will be closed with sutures beneath the skin, which will dissolve within 4 – 6 weeks. (Figure 6).



Figure 6. Postoperative Incisions

**Activity:** Taking daily walks is strongly advised. Prolonged sitting or lying in bed should be avoided and can increase your risk for forming blood clots in the legs as well as developing pneumonia. Climbing stairs is possible but should be limited. Driving should be avoided for at least 2 weeks after surgery. Most patients return to full activity and aerobic exercise (swimming, cycling, jogging) an average of 3-4 weeks after surgery. Absolutely no heavy lifting (greater than 20 pounds) or heavy exercising (contact sports, tennis, golf, skiing) for six weeks or until instructed by your doctor.

**Medications:** You can resume your usual medications after surgery with the exception of aspirin or other blood thinners, which can increase the risk of bleeding.

**Follow-up Appointment:** Prior to discharge from the hospital, you will be given postoperative instructions by your surgeon.

In addition you will be instructed on when to follow up in the office for removal of your Foley catheter (typically 1-2 weeks after the date of surgery). An X-ray test of the bladder and urethra (called a cystogram) may be requested to confirm that the bladder and urethra are healed prior to removal of the Foley catheter. If requested to have this x-ray postoperatively,

for Johns Hopkins Hospital patients please call **410-955-6707** or for The Johns Hopkins Bayview Urology Clinic patients please call **410-550-7008**.

**Pathology Results:** Pathology results are usually available approximately 7 days following surgery. These results will be reviewed with you in the office. Alternatively, you can contact your surgeon by phone or email at one week.

**Long-term Follow-up:** A prostate-specific antigen (PSA) test is drawn at 6 weeks following surgery. Patients are re-evaluated periodically thereafter. This can be easily accomplished over the telephone for patients who do not live close to the Baltimore area.

## Discharge Instructions

### CATHETER CARE:

Your catheter is very important to allow healing of the bladder to the urethra. The catheter should drain your bladder continuously. It should not be put on tension at any time. If you feel pulling or tugging, this means that your catheter needs to be fastened higher up on your leg to allow for some slack on the catheter as you move and walk. Your surgeon should be notified immediately if the catheter stops draining completely or if it falls out.

The urine collection bag must be positioned at all times below the bladder for proper draining by gravity. Drain the bag before it gets too full as this will result in a back up of urine in the bladder. Although use of the larger collection bag is advised, a smaller leg bag is available and can be worn under clothing. The larger bag is required at night as the smaller bags are likely to fill up too quickly.

The tip of the penis may get sore from catheter irritation. Use plain soap and warm water to wash this area daily. You may use water-based lubricants (K-Y jelly or Surgilube) to prevent dryness and discomfort at the tip of the penis. A small amount of blood-tinged urethral secretions or even urine may leak around the catheter at the tip of the penis especially during bowel movements. This occurs due to mild straining and is completely normal.

It is common for your urine to turn pink or red-tinged as you become more active simply from the catheter rubbing against your bladder lining. If this occurs, reduce your walking and increase your fluid intake. It is permissible to bring the urine collection bag in the shower.

### DIET:

You may return to your normal diet immediately upon discharge from surgery. However, adhering to foods such as rice, soups, noodles and avoiding high fiber meals (e.g. vegetables such as celery) is advised as your intestines may take up to a week to recover from the surgery and anesthesia. Because of the raw surface in your bladder and urethra, alcohol, spicy foods and drinks with caffeine may cause some irritation or sense of the need to void despite the fact that the catheter is emptying the bladder. If these foods don't bother you however there is no reason to avoid them in moderation. More importantly is to keep your urine flowing freely, drink plenty of fluids during the day (8-10 glasses). The type of fluids (except alcohol) is not as important as the amount. Water is best but juices, coffee, tea, soda are all acceptable.

### ACTIVITY:

Your physical activity is to be restricted, especially during the first two weeks home. During this time use the following guidelines:

- a. Walking 6-8 separate short walks a day is advised to prevent blood clots from forming in the legs or pneumonia in the lungs.
- b. Climbing stairs is permitted if necessary but should be taken slowly. Climbing stairs is otherwise not a necessary activity in terms of exercise.

- c. No lifting heavy objects (anything greater than 10 lbs).
- d. No driving a car and limit long car rides.
- e. No strenuous exercise for 4-6 weeks. Following this, patients can return to their normal activities of daily living.

#### **BOWELS:**

Your bowels should return to normal after the surgery (over the course of 2-4 weeks) though pain medications can cause constipation and therefore should be discontinued as soon as tolerated. The rectum and the prostate are next to each other and any very large and hard stools that require straining to pass can cause bleeding in the urine. Use a mild laxative (e.g. milk of magnesium) or stool softener (e.g. colace) if needed and call if you are having problems.

#### **MEDICATION:**

You should resume your pre surgery medication unless told not to. We recommend staying off aspirin or aspirin-containing products until after the catheter comes out and for at least 4 weeks following surgery. You will be given a prescription for pain pills (e.g. Tylox) for incisional discomfort. Most men following robotic prostatectomy rely only on extra strength Tylenol at home and do not require narcotic pain medication. You will also be given a prescription for an antibiotic (e.g. Ciprofloxacin) to take around the time the catheter comes out. Typically it will be a three-day course of antibiotics, which we ask you to start the day prior to your scheduled cystogram appointment.

#### **HYGIENE:**

You may shower or bathe as soon as you get home. Dab your incision sites dry following a shower and avoid heavy creams or ointments on your incisions. Keeping them dry and open to air is adequate.

#### **PROBLEMS YOU SHOULD REPORT TO US:**

Johns Hopkins Hospital:

Please call Myrna Sroka, RN office at **410-502-7707**

or in an emergency the Urologist On-Call can be contacted at **410-955-6070**.

Bayview Medical Center:

Please call Lynda Mettee, PA at **410-550-1700**

or in an emergency the Urologist On-Call can be contacted at **410-550-0100**.

- a. Fevers over 101 degrees Fahrenheit as this may be a sign of infection.
- b. Heavy bleeding or clots in the urine.
- c. Calf or thigh pain or swelling as this may be a sign of a blood clot.
- d. Difficulty breathing or chest pain as this may be a sign of a pulmonary embolus or heart attack.
- e. Skin rash or hives as these may be signs of potential medication reactions.
- f. Nausea, vomiting, diarrhea which may be a sign of infectious diarrhea (e.g. Clostridium difficile)
- g. Call immediately if your catheter stops draining completely or falls out.

#### **FOLLOW-UP:**

The first postoperative appointment will be to remove the catheter, usually done at 1-2 weeks after surgery. Your surgeon will decide on the timing of this and this appointment will be arranged through the urology clinic (Johns Hopkins Hospital: **410-955-6707**, Johns Hopkins Bayview **410 550-7008**). Most people will have some difficulty initially with urinary control at the time the catheter is removed.

**Therefore, come to the office with a small supply of adult diapers or insert pads (ATTENDS or DEPENDS) that can be purchased at any drug store.**

Once your catheter is removed it is recommended that you avoid caffeine, alcohol, and excessive fluid intake for 1-2 months as this can aggravate incontinence.

#### **PATHOLOGY RESULTS:**

Pathology results are usually available approximately 7 days following surgery. These results will be reviewed with you in the office. Alternatively, you can contact your surgeon by phone or email at one week.

#### **IMPORTANT CONTACT INFORMATION:**

Johns Hopkins Hospital

**(410) 502-7707** (Myrna Sroka, RN)

**(410) 955-6070** (Emergency number for urologist on call Johns Hopkins)

**(410) 550-0100** (Emergency number for urologist on call Bayview Medical Center)

## **KEGEL EXERCISES**

### **PELVIC MUSCLE EXERCISES TO IMPROVE BLADDER CONTROL (MALE)**

Pelvic muscle exercises strengthen the group of muscles called the pelvic floor muscles. These muscles relax and contract under your command to control the opening and closing of your bladder. When these muscles are weak, urine leakage may result. However, you can exercise them and in many cases, regain your bladder control.

To achieve the best results when performing these exercises, imagine yourself an athlete in training. You need to build the strength and the endurance of your muscles. **THIS REQUIRES REGULAR EXERCISE.**

It is recommended that you start doing Kegel exercises six-eight weeks prior to surgery.

Begin by locating the muscles to be exercised:

1. As you begin urinating, try to stop or slow the urine **WITHOUT** tensing the muscles of your legs, buttocks, or abdomen. This is very important. Using other muscles will defeat the purpose of the exercise.
2. When you are able to stop or slow the stream of urine, you know that you have located the correct muscles. Feel the sensation of the muscles pulling inward and upward.
3. You may squeeze the area of the rectum to tighten the anus as if trying not to pass gas and that will be using the correct muscles.
4. Remember **NOT** to tense the abdominal, buttock, or thigh muscles.

Now you are ready to exercise regularly:

1. After you have located the correct muscles, set aside time each day for three to four exercise sessions (morning, midday, and evening)
2. Squeeze your muscles to the slow count of five. Then, relax the muscle completely to the slow count of five. The

five second contraction and the five second relaxation make one "set."

## TIPS

- When your pelvic floor muscles are very weak, you should begin by contracting the muscles for only three to five seconds. Begin doing what you can and continue faithfully. In a few weeks, you should be able to increase the amount of time you are able to hold the contraction and the number of exercise sets you are able to do. Your goal is to hold each contraction for ten seconds, to relax for ten seconds, and to complete 25 to 30 kegels three to four times per day.
- In the beginning, check yourself frequently by looking in the mirror or placing a hand on your abdomen and buttocks to ensure that you do not feel your belly, thigh, or buttock muscles move. If there's movement, continue to experiment until you have isolated just the muscles of the pelvic floor.
- If you are unsure that you are contracting the correct muscles, at your next exam, ask your urologist to help you identify the proper muscle contraction.
- It is important to know that full control of urination may take even up to one year to return completely following surgery. Most men experience improvement within 3-6 months. By 6 months, 70% of patients are pad-free and 90% are pad-free at one year.
- Exercise your pelvic muscles regularly for a lifetime to improve and maintain bladder control.
- Pelvic muscle exercises also improve orgasmic function. Whether you are doing pelvic muscle exercise to improve or maintain bladder control or improve orgasmic function, or both, they must be done faithfully. Make them part of your routine.
- Use daily activities such as eating meals, watching the news, stopping at traffic lights, and waiting in lines as clues to do a few pelvic muscle exercises.
- **Avoid caffeine, alcohol or excessive fluid intake for first 1-2 months after surgery** as this will exacerbate urinary leakage

## FREQUENTLY ASKED QUESTIONS

### 1. How long have LRP and RALP been performed at Hopkins?

The LRP program at Hopkins was initiated in 2001. Since then, over 1000 LRP have been performed. The outcomes have generally been excellent. Around 2005 an increasing amount of LRP surgeries started to be performed with the assistance of the DaVinci™ robotic system (termed robot-assisted laparoscopic radical prostatectomy or RALP). RALP, has been offered to an increasing amount of patient since then and hundreds are being performed annually as well. Dr. Allaf, Dr. Pavlovich and other surgeons at Johns Hopkins offer both LRP and RALP in nerve-sparing fashion, as do other surgeons (see RALP website).

### 2. What is the difference between LRP and RALP?

Both of these techniques are minimally invasive laparoscopic procedures that require 4-6 keyhole incisions.

Both require a general anesthesia and have similar early outcomes with regards to cancer control, urinary continence, and sexual function. The only difference is that in the robotic assisted technique, a sophisticated robotic system called the DaVinci™ robot is used to hold the laparoscopic instruments and allow dissection of the prostate gland and suturing of the bladder to the urethra. In the robot-assisted technique the surgeon has complete control over movement of a high definition 3-D camera as well as wristed robotic instruments that move and rotate with the facility of a human wrist.

**3. How do I know if I am a candidate for LRP or RALP?**

Most men who are considered candidates for open surgery are also good candidates for a minimally invasive approach such as LRP or RALP. Patients with a history of multiple prior abdominal or pelvic surgeries, large prostate glands (e.g. over 100 grams), or morbid obesity are often more challenging; however, these conditions are not absolute contraindications for LRP or RALP. Your surgeon will help you make the best decision.

**4. How long is the operation?**

The length of these operations may vary based on a patient's weight, size of the prostate, and the presence of scarring around the prostate gland. In general these cases can last anywhere between 1.5 and 4.0 hours.

**5. Will I need a transfusion and do I need to donate blood?**

Transfusions are rare with these minimally invasive techniques. This is one of the most significant advantages over open surgery as bleeding is drastically reduced as compared to open surgery with routinely only 100-200 cc of blood loss. Donation of blood is optional but not generally required nor recommended.

**6. How much pain will I have after surgery?**

Patients often require a small amount of intravenous and/or oral narcotic pain medication during their hospital stay but often use only extra strength Tylenol™ once discharged from the hospital.

**7. How long is the hospitalization?**

Hospitalization is usually 1 day with these minimally invasive techniques. Patients are encouraged to get out of

bed and walk the evening of surgery.

8. How long will I have to have the bladder catheter?

Removal of the catheter will be dependent on the surgeon's particular preference. In general, however, because of the excellent visualization offered by these minimally invasive laparoscopic techniques a watertight connection between the bladder and urethra can be easily achieved allowing for safe removal of the bladder catheter within 1-2 weeks following surgery. Occasionally, the surgeon may perform a cystogram (bladder Xray test) to confirm that the connection between the bladder and urethra are healed sufficiently to allow catheter removal.

9. When can I return to normal activities?

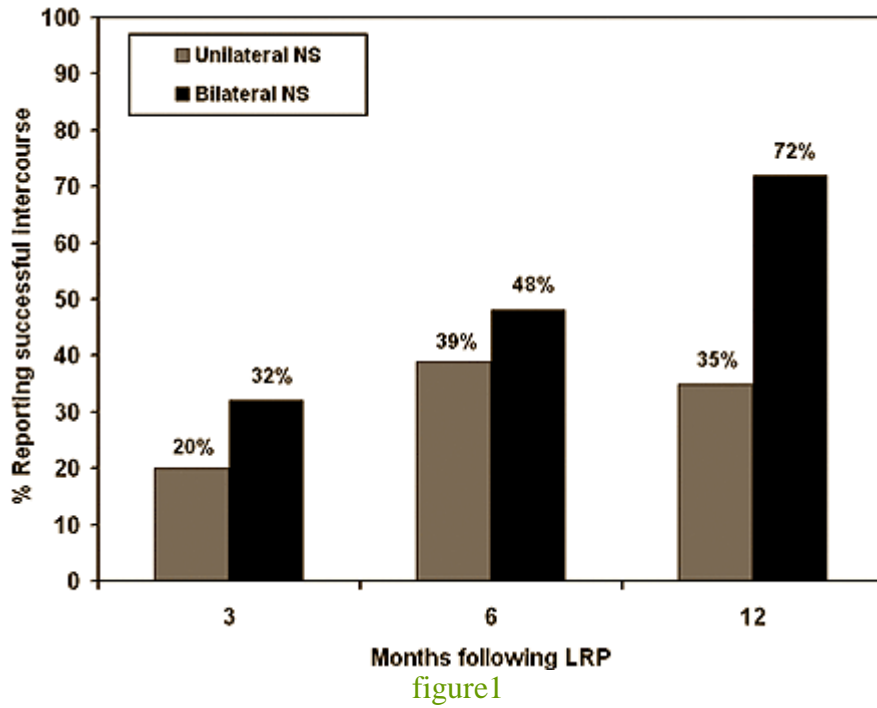
In general patients can return to most activities by 3-4 weeks after surgery. However, urinary control may take weeks to months and sexual function may take months to years to improve completely, just as in open surgery.

10. What is my chance of urinary incontinence?

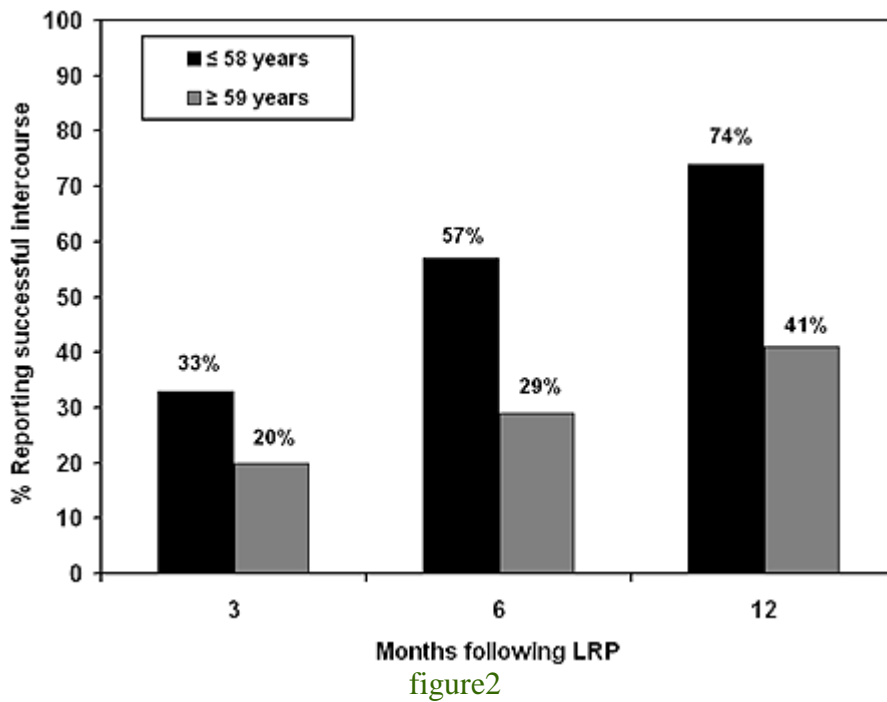
Most men experience at least some degree of stress urinary incontinence for example when sneezing or coughing. This generally improves with time and with vigilance in performing Kegel exercises. Most men regain their continence by 3 months, and younger men tend to regain it earlier. It is extremely rare to have long-term incontinence enough to warrant surgical correction (<5% of patients).

11. What is my chance of erectile dysfunction?

The return of erectile function is perhaps the most difficult outcome measure to predict. Many factors are involved in the return to sexual function following surgery including age of the patient, having an active sexual partner, whether one or both nerve bundles were spared, and time since surgery. When we evaluated preoperatively potent men who underwent nerve-sparing LRP, we found that 48% of men who had both nerve bundles spared reported successful intercourse at 6 months and 72% at one year following surgery with or without the use of oral medications (e.g. Viagra or Cialis) (see Figure 1).



Younger men (< 58 years) appear to have a higher potency rate as compared to older patients (>58 years) at one year (i.e. 74% vs. 41%) (see Figure 2).



Lastly, in younger men (<58 years old) who had both nerves spared, 82% reported intercourse at one year. These results are very similar to results reported with open nerve sparing prostatectomy performed at our

institution.

12. Will I need to follow up at Hopkins after my surgery?

Your first follow up appointment will be for catheter removal 1-2 weeks following surgery. Following this, a PSA test and office visit either to your local urologist or with your Hopkins urologist is recommended at 3, 6, 12 months and then typically annually thereafter.

13. When will the pathology results be available?

Once the cancerous prostate gland is removed it is thoroughly evaluated by the Johns Hopkins pathologists. They are able to identify the Gleason grade, location, and extent of the cancer. In general these results are made available to the surgeon in 5-7 days.

14. Will I need further treatment following surgery for my prostate cancer?

Much of the decision on whether further treatment such as radiation or hormonal therapy is required will be based upon the pathologic stage of the cancer as well as the trend in PSA values following surgery. Most patients nowadays have early cancers detected by PSA screening and therefore are by and large curable with surgery. Therefore most patients do not require additional therapy following surgery. But obviously each case is individualized.