Chapter

<mark>is prosta</mark>te surgery right for you?

What Happens in this Chapter

- Reasons for recommending surgery
- The inside story on TURP for BPH
- Pros and cons of other BPH options
- The inside story on prostate cancer surgery
- Pros and cons of other cancer options

Whether you have benign prostate enlargement or prostate cancer, your medical history, physical examinations, lab tests, and imaging technologies are guides that help your physician recommend which treatments he or she thinks are best for you. However, the decision to proceed with treatment is yours. In some cases, test results are indisputable, the diagnosis certain, and the benefits of treatment obvious. But sometimes things aren't so clear-cut. Understanding the benefits and drawbacks of your options may help you make this important decision.



Benign Prostatic Hyperplasia

IF YOU HAVE BPH, THERE ARE THREE TREATMENT OPTIONS TO consider: watchful waiting, medication, and surgery. The pros and cons of these options are summarized in the chart on page 35. Most commonly, physicians tend to start with the least invasive options. Surgery is usually reserved for men whose symptoms do not improve with medication, or when BPH starts to cause serious medical problems.

BPH: The Case for Watchful Waiting

Watchful waiting is the medical term for a "wait-and-see" approach. You and your physician will keep a close eye on your symptoms, but do nothing unless something changes.

Large clinical studies indicate that BPH symptoms improve or disappear on their own in 20 to 50 percent of cases approximately. Therefore, many men do not need any treatment. However, about a third of those who choose to wait and see will experience progressive worsening of their symptoms and some may eventually lose the ability to empty their bladder. The IO-year risk for developing acute urinary retention (see page 9) is about I3 percent—or odds of slightly better than I in IO. The risk for requiring surgery for BPH is about 5 percent (or odds of I in 20). These low probabilities make watchful waiting quite attractive, especially when BPH symptoms are mild and not too bothersome.

Living with Mild Prostate Enlargement

Most men adjust to mild urinary symptoms—a visit to the washroom before leaving home, scouting out the public lavatory at the mall, taking the aisle seat at the movies, and reducing fluid intake after dinner or before bedtime.

Certain medications can aggravate BPH symptoms. If you have allergies or catch a cold, you'll have to think twice about taking

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[SELF-HELP]

How to Decide?

- In general, start with the less invasive treatments.
- Your own health condition may mean that one or more of the alternatives is not available to you.
- If in doubt, get a second (or third) opinion from another physician. Tell them you are seeking another opinion. This is normal. Your family doctor or friends will be able to suggest alternate names.
- As with all illnesses, your condition can change over time and you may need to revise your decision.
- You are entitled to change your mind if you feel that you have made a wrong choice.

non-prescription medications known as **adrenergics** because they mimic the effects of **adrenaline** (also called **epinephrine**). This is the "fight-or-flight" hormone that evolved in mammals to speed up the body for coping with such emergencies as outrunning a lion or avoiding an oncoming car. Many decongestants contain a synthetic version of adrenaline, called **pseudoephedrine**, which relaxes the lung's bronchial passages, stimulates the heart rate, and constricts blood vessels. Another problem with adrenergics is that they constrict muscles in the prostate and bladder making it harder to urinate. Antihistamines, such as diphenhydramine (Benadryl), can also slow urine flow in some men.

Anyone who has BPH and hypertension (high blood pressure) or congestive heart disease, and is taking diuretics, such as chlorthalidone or hydrochlorothiazide, should discuss the risks and



benefits of this drug regimen with his doctor. Diuretics (also called "water pills") decrease the amount of fluid in your body by encouraging the kidneys to produce large quantities of urine. This might be a good thing for hypertension, but clearly there's a conflict for someone who has lower urinary tract symptoms or is prone to urinary retention. However, no one should stop taking diuretics without medical supervision since these drugs are an important treatment for cardiovascular disease.

"I encourage men to enhance their knowledge base, to educate themselves so that they understand some of the "techy" terms like PSA and digital rectal exam and that they understand the results that come from the tests."

Ron

BPH: The Case for Drug Therapy

Medication has become a popular treatment choice for BPH. In the United States, the number of prescriptions written monthly for BPH drugs increased from less than 400,000 to more than one million between 1993 and 1996. The obvious advantage of drug therapy is that it provides effective relief of BPH symptoms without surgery.

Two classes of prescription medications are used: **alpha blockers** and **5-alpha-reductase inhibitors**. For a more detailed discussion of the medications used to treat BPH, see Chapter II. Saw palmetto, an over-the-counter herbal medication, may also help alleviate some of the mild symptoms of BPH (seee page II3).

So if these medications are effective, why does anyone opt for surgery? For one thing, although alpha blockers and 5-alphareductase inhibitors can slow up the progression of the disease, either alone or in combination, studies show that this does not work for all men. Symptoms can worsen during drug treatment and the risk of developing acute urinary retention still exists. Symptoms

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return soon after you stop taking the drugs, so you may need to take medication for the rest of your life. Also, some of the drugs aren't currently covered by public or private drug plans, so this approach may prove to be expensive. Some men also find side effects, such as dizziness, ejaculatory problems, or nasal congestion, troublesome. Although drug therapy alone can be an effective method of treating BPH, regular check-ups with your doctor are a must if this is the route you choose.

BPH: The Case for Surgery

Surgery for BPH is considered "elective"—that is, it's your choice if and when you have the procedure. For many men, their choice depends on how well they can put up with reduced urinary flow and frequent urination (especially during the night). Some can tolerate urinary tract symptoms with little difficulty; others cannot. However, you may not really have a choice under certain circumstances, such as if you experience a decline in kidney function, repeated episodes of blood in your urine, multiple urinary tract infections, and bladder stones. Surgery is also a good option if you develop **diverticulae**, abnormal pockets of tissue in the bladder that can trap urine and cause infection.

The Advantages of TURP

The surgical gold standard for treating BPH is **transurethral resection of the prostate (TURP)**. This procedure involves removing the prostate tissue that surrounds the urethra to relieve the pressure. TURP is described in detail in Chapter 6.

Studies have repeatedly shown that, after TURP, patients don't have to urinate as often and their urinary flow is much stronger.

The benefits of TURP are long-lasting, and the procedure reduces the chance that you'll need additional drug therapy. There's only a I in 20 chance that you'll need repeat surgery after 5 years. Repeat



surgery becomes necessary if prostate tissue re-grows and obstructs the urinary passage, but this second procedure poses no greater risk than the original operation.

Recovery from TURP is fast because the procedure is done via the urethra, with no surgical incision. Once the catheter that was inserted in the urethra is removed after surgery, you should be able to urinate right away and will notice an immediate improvement in symptoms. You should be able to return to normal daily activities (light duties only) in as little as I week after the procedure, although complete healing usually takes about 6 weeks. TURP also generally causes few complications. Severe complications are extremely rare.

The Downsides of TURP

Although most patients do well after TURP, a few suffer a complication called **urinary retention**, in which they are unable to empty their bladder. A variety of factors contribute to this complication, such as an individual's overall health, whether he experienced acute urinary retention before the operation, and inflammation and bleeding caused by the surgery. If this happens to you, a catheter will be inserted into your bladder and removed several days later when you have healed properly. If there is excessive bleeding, the catheter will need to be irrigated with fluid in order to flush out any blood clots that may have formed.

If urinary retention occurs on a regular basis, a technique called intermittent self-catheterization (ISC) may help. The patient is taught to insert a catheter himself whenever urinary retention occurs, to relieve himself. For most men, this solution is only necessary for a short period and the bladder settles down in time. For a rare few, ISC may be needed indefinitely.

Another downside of TURP is that it can cause at least temporary sexual dysfunction (erection difficulties) in about 1 in 25 patients. It

can also cause urinary leakage, or incontinence, in up to I in IOO patients. About 75 percent of patients will experience **retrograde ejac-ulation**, a harmless condition in which some (or all) of the ejaculate goes into the bladder, rather than out of the penis, during orgasm.

Minimally Invasive Treatments

Over the years the search has been on to find alternatives to TURP. Several minimally invasive procedures have been developed, some of which are still experimental and others are available only at some hospitals or at private clinics. They include techniques to shrink or destroy the prostate tissue (high-intensity ultrasound, laser treatment, transurethral electrovaporization, transurethral needle ablation, hyperthermia or thermotherapy) and procedures to stretch and "prop open" the urethra (transurethral balloon dilation and intraurethral stents).

Two techniques that have gained popularity more rapidly than the others are **transurethral microwave thermotherapy** (TUMT) and **needle ablation** (TUNA).

TUMT and TUNA can be performed as day procedures in a hospital or private clinic. TUMT uses microwaves to destroy the prostate tissue that is causing obstruction, while TUNA uses

 KEY

 POINT

Deciding to treat BPH

depends primarily on how bothered you are by your urinary symptoms. Before you decide on surgery or medications, be sure to thoroughly discuss the risks and benefits of each with your urologist. radiowaves to coagulate or "melt" the tissue. Although these techniques have not been studied very extensively as yet, and their longterm benefits are still unknown, they do appear to genuinely improve symptoms. The downside of these procedures is that they may not be covered by health care plans, in which case you may be in for a bill of several thousand dollars.

BPH Treatment—Pros and Cons

There are many factors to consider when you're deciding what treatment is best for you. This quick reference chart may help.

	Advantages	Disadvantages
Watchful Waiting	 no invasive procedures no drugs up to half of BPH cases resolve by them- selves reserved for mild symptoms and low risk of urinary retention 	 a third of men experience progressive worsening of symptoms must avoid over-the- counter cold remedies water pills for hypertension worsen symptoms silent disease progression: stones, infections, bleeding, impaired kidney function 1 in 10 odds of acute urinary retention 1 in 20 odds of surgery
Medications	 safe and effective way to relax prostate sphincter muscle less urinary frequency and urgency 	 benefits are dependent on drug drugs may be required for a long time and some drugs are costly risk of side effects risk of urinary retention still exists
TURP	 significantly less urinary frequency and urgency benefits long-lasting no drugs low risk of repeat surgery quick recovery from a one-time event 	 discomfort, hospital stay, anesthetics rarely, acute urinary retention after surgery requiring long-term catheterization erectile dysfunction in 1 in 25 (temporary in most cases) incontinence in 1 in 100 retrograde ejaculation is common

Prostate Cancer

For prostate cancer, there are currently four main options: a waitand-see approach (watchful waiting), radiation therapy, medication, and surgical removal of the prostate (radical prostatectomy). These options are summarized on page 46. Your age, lifestyle, PSA level, and biopsy results will largely shape your options. If your physician recommends active treatment, it is worth realizing that radiation and surgery appear to be equally effective. As long as the cancer is confined to the prostate, the chances of a complete cure with either treatment are extremely good.

Prostate Cancer: The Case for Watchful Waiting

Watchful waiting involves having no treatment for your prostate cancer until you start experiencing symptoms, at which time your physician will treat the symptoms only, usually with medication.

KEY POINT

Watchful waiting is not a treatment. It means doing nothing to "cure" your cancer and simply treating symptoms as they arise. If you opt for watchful waiting and your cancer spreads, your chances of a cure are greatly reduced. Your oncologist will discuss the pros and cons of watchful waiting with you, based on the characteristics of your own tumor. Watchful waiting can be very appealing to men who don't want any type of treatment for prostate cancer. Unlike some other kinds of cancer, prostate cancer can be very slow growing, taking 5 to 15 years to spread and become potentially lethal. That's why many men who develop prostate cancer late in life die *with* the disease rather than *from* it.

Despite the appeal of

"doing nothing," watchful waiting is really only an option for a select group of men. Men in their late 60s or older whose cancer appears less aggressive and men who are too ill from other causes to undergo treatment are the best candidates for watchful waiting. If your cancer has already started progressing, you will be advised to start curative treatment without delay, i.e., radiotherapy or surgery.

If you opt for waiting, you'll need to have regular check-ups. Your oncologist will do regular PSA measurements and DRE checks to determine the status of your prostate cancer.

Deciding When to Treat

For most men, particularly younger men with localized cancer, the treatment decision hinges on factors such as TMN stage, Gleason grade, and PSA level (see Chapter 2). With these factors in mind, you and your oncologist will first discuss whether treatment for your prostate cancer is necessary, and then which treatment is best for you. "I had come from the school where the doctor kind of recommends to you what to do. But in prostate cancer you have to make the decision for yourself. It's not made for you. You have to decide on treatment based on your own lifestyle and what you can live with down the road."

Jim

Prostate Cancer: The Case for Radiation

Radiation therapy for prostate cancer has been around for many years and studies so far show that it is as effective as surgery in controlling cancer in certain kinds of patients (see More Detail box on page 38).

The two kinds of radiation treatment commonly used to treat prostate cancer are **external beam radiotherapy** and **brachytherapy**. There are a number of factors to consider when you're trying to decide if radiation treatment is right for you. Its main advantage is that you are spared a major, invasive procedure. External beam radiotherapy does not require any anesthetic and, although brachytherapy requires a general anesthetic, the process of implanting the radioactive seeds is fairly minor.

Rates of incontinence can be lower for patients who undergo radiation compared to surgery, but radiation can still have unpleasant side effects such as other urinary symptoms and irritation of the rectum. In addition, external beam radiotherapy requires a significant time commitment, which may be difficult to schedule. However, the most important downside is that the prostate gland is not removed so it cannot be examined to see how serious your cancer is.





MORE DETAIL

Radiation and surgery appear to be equally effective in treating prostate cancer in certain patients and have similar 10-year survival rates. However, bear in mind that we don't know about survival beyond 10 years. Studies comparing surgery and radiation beyond 10 years appear to show that surgery works better but these studies involved older, less effective radiation techniques. We don't yet know about the long-term effectiveness of newer radiation treatments. Also, we still don't know if radiation works as well as surgery for more aggressive tumors.

External Beam Radiotherapy

This treatment approach involves directing radiation beams to the prostate using a device called a **linear accelerator**. Standard therapy consists of IO to I5 minutes each day, 5 days a week, over a period of 7 to 8 weeks. Radiation is given in daily, low-dose bursts to give the healthy tissue surrounding the prostate a chance to recuperate.

Cancerous tissue doesn't repair itself as quickly as normal tissue, so

over time, the cancer cells cannot cope with the repeated bombardments and sustain so much damage that they are destroyed. The surrounding areas of normal tissue, however, do recover from the radiation damage.

Conformal Radiotherapy and IMRT

Conformal radiotherapy has added a new dimension to external beam radiotherapy. With the aid of computers, multiple radiation beams are made to "conform" to the shape of the prostate, which means that higher doses can be delivered safely to the cancer while sparing the surrounding tissues, especially the rectum and the bladder. The high-precision technology necessary for conformal radiotherapy (which is only available in some major radiation clinics) has led to an even further refinement: **intensity modulated radiotherapy** (**IMRT**). With IMRT, the radiation oncologist can conform the radiation dose tightly around the prostate to an even greater degree than conformal radiotherapy, allowing for even greater sparing of normal tissues. IMRT also allows the oncologist to vary the amount of radiation administered to different places on the prostate. For example, an oncologist can focus a higher radiation dose on the prostate lobe with obvious tumors.

Brachytherapy

Opinions vary, but brachytherapy alone is often reserved for patients with low-risk tumors—i.e., those with a PSA below 10 ng/mL and a Gleason score of 6 or less (see pages 17–19 and 22–24). In men with more aggressive tumors, brachytherapy can be used in combination with hormones or beam therapy.

The procedure involves implanting about 100 radioactive "seeds," usually



While most experts feel that the radiation of brachytherapy poses no danger to others, you're still advised not to hug pregnant women or let children sit on your lap for 2 months after you have had the seeds implanted. "I sailed through the radiation remarkably well. For the first 50 percent of the radiation, I had essentially zero side effects. In the second half of my program, I began to notice fatigue, which I had been warned about, and I began to notice that there was some looseness and some diarrhea, which affected me in the morning only. So I rescheduled my life so that I would tend to stay home in the morning. By noon, the diarrhea had passed, and the afternoon and evening were free to do whatever I chose to do."

iodine or palladium, into the prostate through the skin between the anus and the base of the penis (the **perineum**). The seeds are positioned in the prostate using transrectal ultrasound guidance (see page 19), to lie approximately 5 mm (1/4 inch) apart from each other. The radiation that comes from the seeds weakens significantly over a distance of only a few millimeters, so damage to nearby healthy tissues is limited, while the additive effect of numerous radioactive seeds

results in a very high radiation dose being delivered to the prostate. Typically, the procedure can be done as a I-day procedure and you do not have to stay in hospital overnight. Although the seeds are permanently implanted, their radioactivity only lasts a few months.

Prostate Cancer: The Case for Drug Therapy

Ron

About 50 years ago Charles Huggins, an American urologist, discovered that prostate cancer grows in response to male hormones (androgens), of which testosterone is the most important, and that reducing testosterone levels causes prostate cancer cells to regress. This discovery not only earned a Nobel Prize for Dr. Huggins, but also created an effective treatment for men whose prostate cancer had spread. There is now a wide range of treatments that shrink prostate cancer by interfering with testosterone.



Drug treatment is usually reserved for men who cannot have surgery or radiotherapy, for example, men whose prostate cancer has already metastasized beyond the prostate gland, or who have other medical conditions that rule out surgery or radiation. Drugs are also helpful after surgery or radiation as a preventive measure for very aggressive cancers, or as a treatment if the cancer returns.

The huge advantage of hormone medications for prostate cancer compared to "conventional" chemotherapy for other types of cancers is that these hormonal approaches target only testosterone—they do not affect other organs or body systems—so they are generally welltolerated, regardless of whether you have other medical illnesses.

The downside of these drugs is that lack of testosterone can itself cause side effects, which you have to weigh against their life-saving effects. You may feel tired and fragile due to loss of muscle strength. **Osteoporosis** (brittle bones) and **anemia** (see page 58) are also long-term risks. Loss of libido and sexual function, hot flashes, and sweating are also common complaints.

LHRH Agonists

Luteinizing hormone-releasing hormone (LHRH) agonists are artificial versions of a natural hormone, luteinizing hormonereleasing hormone. They work by stimulating the **pituitary gland**, a small gland tucked underneath the brain, to produce a hormone called **luteinizing hormone** (LH). At first this stimulates the testicles to produce more testosterone, but then a complex feedback mechanism kicks in that dampens down LH production and testosterone levels start to fall. Within about 3 weeks, testosterone levels in the body become almost undetectable and stay that way as long as therapy is continued.

LHRH agonists need to be given by injection under your skin or into a muscle by a nurse or physician every I to 4 months. LHRH agonists include goserelin (Zoladex), leuprolide (e.g., Lupron), and triptorelin (Trelstar Depot).

"They were all telling me how young I was and how I can't just wait around and let this thing get the better of me, I should be getting the better of it."

Jim

Antiandrogens

Another approach is to leave testosterone blood levels unchanged, but prevent testosterone from "switching on" the prostate cancer cells. **Antiandrogen** medications do this by blocking testosterone at the level of the prostate cancer cells. Like a false key in the ignition, they block the testosterone receptors on the outside of prostate cancer cells, preventing the testosterone "key" from entering.

Again, the advantage of this approach is that antiandrogens only target cells with testosterone receptors, so other body systems are not affected. Another benefit of antiandrogens is that they block the small amount of testosterone produced by the adrenal glands, which is not affected by LHRH agonists. Antiandrogens include bicalutamide (Casodex), flutamide (Eulexin), and nilutamide (Nilandron). They are sometimes used in combination with LHRH agonists.

Prostate Cancer: The Case for Surgery

Making the decision to have surgery can be hard, even if it seems like the best and most obvious course of action.

Surgery for prostate cancer is called **radical prostatectomy**. It involves complete removal of the prostate gland and the surrounding

"He wanted to know if I wanted more time to think about it and I said, 'No, let's get on with it.'"

Ray

tissue, including a structure called the seminal vesicles that are attached to the prostate. For a detailed description of radical prostatectomy, see Chapter 6.

The operation takes 2 to 3 hours and you would stay in the hospital for about 2 days. You would be discharged with a catheter in place to drain your bladder, which would be removed by your surgeon I to 3 weeks after the procedure. It usually takes about 3 to 5 weeks to recover fully.

Help Yourself... To the Right Surgeon



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Your health care should be a partnership, so you must feel completely comfortable about your choice of surgeon. Radical prostatectomy is a major operation and considered technically difficult. A recent report published in the prestigious *New England Journal of Medicine* showed that patients suffered fewer complications when their surgeon had performed the procedure often (at least 33 times per year). Keep in mind that urologists are qualified to perform a wide variety of different surgical procedures and that radical prostatectomy is only one of many. Don't be shy. It's up to you to ask whether this is a procedure that your urologist performs frequently.

Advantages of a Radical Prostatectomy

One major advantage of radical prostatectomy is that we know it gives long-lasting control of prostate cancer. Current techniques have been around for more than 50 years and the procedure itself has been done for over 100 years—much longer than any other prostate cancer treatment. Repeated studies have shown that a high percentage of cancer patients have good long-term survival (20 years or more) after the procedure.

The other major advantage is that when the whole prostate gland is removed, a pathologist can examine the tumor in detail to see whether the cancer was confined to the prostate gland and whether all of the cancer was removed. With this information, your oncologist can determine if further treatment is needed. Knowing that the cancer was completely confined within the prostate can provide peace of mind.

Nerve-Sparing Techniques



$\left[\begin{array}{c} MORE\\ DETAIL \end{array}\right]$

Radical prostatectomy is now a more attractive option than it once was because of the arrival of improved techniques for sparing the nerves that control erections. You should discuss **nerve-sparing techniques** with your surgeon, although he or she will make the final decision on what is practical during the actual surgery, based on how extensive your cancer is.

When both nerves that control erections are spared, the probability of having erections after surgery is high—between 60 and 80 percent. However, bear in mind that this is an average. If you have other medical conditions that affect erections, such as diabetes, depression, or cardiovascular disease, the odds will be lower than this.

Disadvantages of a Radical Prostatectomy

The downside of radical prostatectomy is that it is a major operation and, like all surgeries, has risks associated with it. Remember that the risks given below are averages, and, depending on your own health, your own personal risks may be much lower (or higher). Your physician should discuss these risks with you.

Blood loss is the first downside to consider (see also pages 57-59). If your surgeon is experienced, your chance of requiring a blood transfusion, on average, is about I in 20. Blood loss, and the chance of having a blood transfusion, is greater if your surgeon is attempting a nerve-sparing procedure (see More Detail box above). The reason for this is that any attempts at controlling bleeding with heat or sutures could damage your nerves, so your surgeon, in effect, "spends" blood in order to make sure that your nerves are not damaged.

The risk of death during radical prostatectomy is low, about 4 to 9 in 1,000 patients. About 1 in 100 patients suffers a heart attack, bloods clots in the veins (which in rare cases move to the lungs), or similar "cardiovascular" problems.

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Because the prostate is quite close to the rectum and is held in place by connective tissue, there's also a remote chance that the rectum could be injured. This complication is repaired on the spot and usually does not affect recovery time or bowel function.

Another problem that might develop after surgery is excessive scar-tissue formation where the bladder is re-connected to the urethra. This condition is called a **bladder neck stricture** and occurs in 2 to 10 percent of patients. A procedure done in your doctor's office, involving a small incision into the stricture, easily corrects this complication.

Erectile dysfunction is one of the most feared side effects of prostatectomy. Many men will experience at least temporary problems with erections after their surgery, although for most "We clearly established the criteria: one, remove the cancer, two, retain urinary control, and three, retain sexual control."

Ron

this is not permanent. If your erection nerves have been spared, you are less likely to have problems (see More Detail box on page 44). You are also more likely to have good erections after surgery if you had good erections before the operation. Some medications, such as those for high blood pressure or heart disease, can also affect your ability to achieve an erection and age can make a difference: the younger you are, the higher the probability that you will retain your erectile function. On the other hand, if one or more erection nerves had to be removed because the cancer had spread beyond the prostate, the likelihood of achieving erections after surgery will be lower. You are also less likely to have good erectile function after surgery if you have certain medical conditions such as diabetes, depression, or coronary artery disease.

Incontinence is another potential disadvantage of prostatectomy that you should consider (see also pages 96–100). Most men will experience at least temporary problems with incontinence after a

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Prostate Cancer Treatment—Pros and Cons

Treatment	Advantages	Disadvantages
Watchful Waiting	no invasive proceduresno drugs	higher risk of metastases (cancer spreading) compared to surgerynot a cure
Radiation	 beam therapy is non- invasive beam therapy doesn't require anesthesia 	 mild fatigue is very common beam therapy takes up to 8 weeks, 15 minutes a day, 5 days a week anesthesia is necessary with brachytherapy urinary symptoms due to irritation bowel discomfort and bleeding erectile dysfunction rates can be similar to surgery can't check out the tumor because it's left in place
Hormone Treatments	 non-surgical option may improve survival effective alternative if surgery or radiation not possible effective prevention for aggressive cancers 	 not a cure LHRH agonists need to be injected every 1 to 4 months side effects of low testosterone include hot flashes, loss of libido, sexual dysfunction, fatigue, weakness long-term risk of osteoporosis and anemia
Surgery (Radical Prostatectomy)	 still the "gold standard" for prostate cancer one operation, lasting from 90 to 180 minutes pathology report on whole prostate greater certainty about cancer spread 	 invasive procedure potential for significant blood loss general anesthesia is necessary rarely, scar tissue build-up after surgery at join of bladder and urethra catheter for up to 3 weeks usually 6 weeks to recover fully at least temporary urinary incon- tinence and erectile dysfunction

radical prostatectomy, but the odds of having permanent urinary control problems have fallen significantly in recent years—with new techniques to prevent damage to the urethra—and are now only about I in IOO. The vast majority of men have complete urinary control once they recover from surgery, although a few will report mild leakage during coughing or laughing (called **stress incontinence**).



KEY POINT

Whatever turns you on now, will turn you on after your surgery. It is important to realize that, although surgery can affect your ability to have an erection, it does not affect any other aspect of your sexuality. Even if you cannot get an erection at first, you can still get aroused, still feel sensation, and still have an orgasm. The reason for this is that surgery rarely affects the nerves that control sensation, which are more widely spread than the erection nerves.

Finally, recovery from prostatectomy can be uncomfortable because you will have to live with a catheter coming out of your bladder through your penis for I to 2 weeks.

What Happens Next?

If you and your physician decide to go ahead with surgery, the next chapter will help get you ready to take this important step towards improving your health. If you decide that surgery isn't right for you, skip to Chapter 9 to find out how you can improve your long-term quality of life. You may also want to read Chapter II if you're curious to learn more about some of the medications you might be taking.

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