

Top 17 Questions in Urology

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In this chapter, we'll go over common health problems in urology.

1. What does blood in my urine mean?

It can certainly be alarming to be told by your doctor that there is blood in your urine (also called hematuria) after giving a sample. Even more alarming is the actual sight of the blood. Blood is a very strong pigment and it can look like a large amount is in the toilet, even though there may be very little.

The presence of blood in the urine that you cannot see, but is found on urine tests, is called **microscopic hematuria**. Visible blood is known as **gross hematuria**.

Blood can come from any part of your urinary tract, from the small tubules in the kidney, through the ureters, the bladder, the prostate in men, to the very end of the urinary passage (the urethra).

The questions you will be asked and the investigations that are recommended are geared to finding out where the blood may be coming from. Often, however, no clear cause is found even after all of these tests – this should nonetheless be reassuring that nothing very worrisome is happening.

Some causes of blood in the urine:

- Urinary stones (even if you have no symptoms)
- Urinary tract infection or inflammation
- Injuries to the urinary tract (blunt trauma to the kidneys or urinary tract, or as subtle as a small amount of blood escaping after vigorous exercise)
- Benign enlargement of the prostate, very common in men
- Radiation therapy (if you have had radiation for cancers in the pelvis)
- Cancers of the urinary tract (bladder, kidney, prostate)

The most worrisome cause of hematuria is a tumour or cancer of the urinary tract. These are most commonly found in the bladder, but kidney and prostate cancers can also cause bleeding.

If you have blood in your urine, urinary tract cancers are not common, but you should be tested to rule them out, since the blood is often the only sign of the tumour. Bladder cancers often do not have a clear cause, but smoking is a very common cause and some occupational exposures are linked as well. Please see the Bladder Cancer chapter for more information.

What tests do I have to do?

When presenting with blood in the urine, tests are usually recommended to assess the urine, the kidneys and the bladder.

- Urine tests include a **dipstick** test to look at the amount of blood and whether any clues to inflammation of the kidney can be found.
- **Urine culture** will assess for an infection.
- **Urine cytology** tests will look for abnormal cells that are worrisome for cancer.
- An **ultrasound, CT or MRI scan** will usually be recommended as the best way to see the kidneys in detail.
- Many patients will be recommended for **cystoscopy**, in which a small camera is passed through the urethra into the bladder – the best way to look at the bladder lining to check for any abnormalities.

2. Why do I have to go to the bathroom so often?

We take for granted that our bladder habits are very predictable and regular – they don't interfere with our day-to-day lives. When something feels abnormal about our voiding, it can negatively affect our lives. Two common abnormal feelings are (1) having to urinate very frequently or (2) having to urinate very suddenly. These issues can be very frustrating, especially if there is no bathroom nearby.

There are a number of causes that can affect your bladder's ability to completely fill without signalling to us that we need to urinate. Thankfully there are effective treatments to deal with these causes.

One of the most obvious causes of **urinary frequency** is a bladder infection or **cystitis**. You feel this as bladder discomfort between your navel and pelvic bone, frequent or **urgent** voiding and burning pain with urination.

The bladder can also be overactive for a number of other reasons. Please see the Urinary Tract Infections chapter for more information. Urologists have long recognized the phenomenon of **overactive bladder (OAB)** in women, and are becoming more aware of it in men as well.

Urinary frequency (urinating a lot) and urinary urgency (sudden feeling of having to go to the bathroom) are symptoms of OAB. The reasons for it are not well understood, but in these patients the bladder seems to have a “mind of its own,” and will create the desire to urinate very frequently. It can be treated with behavioural techniques known as **bladder training**, or with a common class of medications called **anticholinergics**, which reduce the spasticity of the bladder muscle in these cases.

Urinary frequency is also common in men with benign prostate enlargement, who may have difficulty fully emptying their bladders. People with “lazy” bladders may also have the same sensation, because the bladder will become full sooner than if it had been able to empty completely.

Your urologist will also keep in mind that less common causes of overactivity in the bladder might have a **neurological** cause in the brain or spinal cord. Your doctor may ask some questions about seemingly unrelated neurological symptoms to better assess this.

3. Why do I have to get up so often at night to urinate?

Waking up at night because you need to urinate is an especially common and especially bothersome symptom, because it interrupts your sleep and can leave you feeling tired or unrefreshed in the morning and throughout the day. This symptom is called **nocturia**. It is also one of the more difficult urinary symptoms to manage.

The first issue is to distinguish between waking up because of the *need to urinate* and waking up for other reasons and *then deciding to go to the bathroom*. The second problem may be unrelated to urination, and may be best managed by improvements to your sleep and sleep habits.

The issues leading to nocturia may be similar to the issues that affect your voiding during the day. Please see the chapter on Lower Urinary Tract Symptoms and Prostate Health for details. If the bladder empties sluggishly or incompletely during the day, it will likely do the same at night. Other changes at night may contribute to nocturia, however, some of which you can modify to decrease the problem.

Many people will have some amount of fluid in the tissues that pools in the legs or ankles during the day, when we spend our time upright. This may be noticeable as ankle swelling, or may go unnoticed. At night when you lie down, this fluid is no longer trapped in the legs and feet, and can redistribute back into the bloodstream, where the kidneys eventually filter it into urine. Some people may also make less of a certain hormone (antidiuretic hormone or ADH) at night. Both of these problems will result in more urine being produced at night, and consequently the need to wake up to urinate.

The answer may be simpler than this, however. If you drink a significant amount of fluid in the evening before bed, this will result in more urine production during the night. If you do not empty your bladder at bedtime, you will also be more likely to wake in the night. These are hints at a strategy to reduce the amount and burden of nocturia.

If you are bothered by nocturia, then a few steps may be helpful. The first is to limit the amount of fluid intake after dinner. Of course, this cannot always be totally avoided, as in the case of evening medications. Making sure you urinate immediately before bed will ensure as empty a bladder as possible, and the best chance at uninterrupted sleep. Sometimes medications taken to help improve the urinary stream (see the chapter on Lower Urinary Tract Symptoms and Prostate Health) can improve bladder emptying and increase the time before you next have to void. In some cases, changing the amount or timing of other medications you take (such as diuretics or “water pills”) can be helpful in changing your urine production and urination. Always talk to your prescribing doctor before considering this.

Some people have also found that keeping a urinal next to the bed can help. It will not change the number of times you wake to urinate, but it can save the trip out of bed to the bathroom. If you are slow moving in the night or prone to unsteadiness or falls, this may be helpful.

4. Why do I dribble urine after I urinate?

A common problem some men experience is the dribbling of a small amount of urine after you have finished in the bathroom. This can simply be annoying, or can be troublesome if there is enough leakage to make your underwear feel uncomfortable, or to show through your pants.

The cause of this **post-void dribbling** is not perfectly clear, but is likely due to one of a couple of reasons. The first might be that the sluggish urinary flow that many men experience (see the Lower Urinary Tract Symptoms chapter for details) can result in a small pool of urine that becomes trapped in the urinary passage (the **urethra**) at the end of the stream, without the force to be expelled into the toilet. The urethra is shaped in such a way that there can be some retention of urine below the muscle that closes the bladder's outflow (see the Anatomy chapter). As you leave the bathroom, this small pool of urine is shaken and dribbles out. If a man consciously stops his urinary stream before being completely empty, a small amount of urine will leave the bladder but be stopped by this muscle contraction a few centimeters downstream. When this muscle relaxes somewhat in the next couple of minutes, this urine will slip out and leak, causing the sensation of a small squirt of urine in the underpants.

If the urine flow simply peters out very slowly, but not after leaving the toilet, the same slow stream that is common in men may be the cause. The limited flow through the urethra creates a dribbling stream that can seem to take ages to stop. This is called **terminal dribbling**.

In women, the urethra is short and straight, and so cannot contain any urine after voiding. If you dribble after voiding, it may be due to some weakness of the muscles of the pelvis that happens commonly to women (please see the Urinary Incontinence chapter for details) and allows some urine to leak. More rarely, there can be a small cavity that pouches out from the urethra, called a **urethral diverticulum**, which can hold and occasionally leak urine. This phenomenon is often associated with urinary infections and discomfort during urination or sexual activity.

5. My doctor says I need urodynamic studies. What are these and why do I need them?

Sometimes your urination problems cannot be pinpointed to one specific cause or diagnosis. In these cases, special tests called **urodynamic studies** can be used to get more information. The most common are the **uroflow**, **multichannel urodynamics** and **videourodynamics**.

You may need urodynamic testing:

- To assess the causes of urinary leakage (whether the bladder itself or the supporting tissues around the bladder are the cause);
 - To determine whether there may be a neurological problem contributing to your bladder issues; or
 - To determine whether sluggish urination is due to a weakened bladder or an obstructed bladder outlet (difficult in passing urine from the bladder to the urethra).
1. Uroflow and **post-void residual studies** (measuring the volume of urine left in your bladder after voiding completely) involve voiding into a special toilet to measure the rate and volume of your urine flow. These can tell whether the flow is truly weakened, or whether it shows evidence of straining to void or start-and-stop voiding. After this, a **bladder scan** can be used to estimate whether the bladder has truly emptied.

2. **Multichannel urodynamics** involves placing very small catheters into the urinary passage (the urethra) and into the rectum. These catheters help control the filling of your bladder and allow us to measure the pressure in the abdomen and in the bladder itself. This helps to assess the bladder's response to filling, and whether there are abnormal contractions of the bladder muscle, changes in the flexibility of the bladder wall (called **compliance**), decreased capacity of the bladder or abnormalities in how you feel when your bladder fills.

We can also combine these tests with **urinary sphincter** tests (called **EMG**) that assess whether muscles that help control the flow of urine from the bladder are active at abnormal times.

3. **Videourodynamics** are special X-rays that can be done together with multichannel urodynamics. This allows your urologist or gynecologist to assess what happens to the bladder, the bladder outlet and the support structures around the bladder during filling of the bladder and voiding. This test is often done if you have complicated issues with urinary leakage.

Urodynamic studies, together with your physical exam and symptom assessment, can help us determine the best diagnosis and management plan.

6. Why does my bladder hurt all the time?

A painful bladder is typically felt above the pubic bone and below the navel. There may be many reasons why your bladder is hurting. A urinary tract infection or injury will often be associated with a painful bladder. You may also feel burning or discomfort while voiding. If your bladder pain is due to an infection, you will likely feel better after urination and after antibiotic treatment. An overactive bladder will often include a sense of urinary **urgency**, which can be uncomfortable as well.

When there is a different kind of pain that feels unlike the typical discomfort of a very full bladder, there may be other causes. Before deciding that the bladder is the source, your doctor will have to rule out gastrointestinal issues (such as constipation), gynecologic issues in women (such as endometriosis) or other issues with the skin or genitals.

Some people will continue to have a chronically painful bladder despite thorough testing that rules out other causes. This may be due to a condition called **interstitial cystitis** (inflamed bladder) or **painful bladder syndrome**, which affects women and men. It is characterized by urinary symptoms of **frequency** and **urgency**, but always with a pain in the bladder, and sometimes the genitals, muscles and other tissues of the pelvis. This pain is often made worse by certain foods and drink, and can be made worse in some cases by sexual activity.

Interstitial cystitis may be caused by a deficiency in the protective layer of the bladder, which causes irritation and pain when urine goes through the bladder. The causes of interstitial cystitis are unclear, but several treatments are available.

- Lifestyle changes, such as avoiding of certain foods, can make the symptoms more tolerable.
- Oral and **intravesical** (inside the bladder) treatments can be helpful.

Your urologist will work with you to find the best combination for you, but the disease can be hard to control. You may need many types of therapy to manage the disease. It usually takes a long time to arrive at a diagnosis of interstitial cystitis and to determine the best treatment but you can expect some degree of relief.

7. I have a catheter in my bladder. How can I manage it at home?

It is common to have a bladder catheter to treat many urological disorders and issues. The function of the catheter is to keep the bladder empty, to monitor the urine and to protect the bladder or urethra in cases of surgery or injury.

If you need a bladder catheter at home, it's often because you can't urinate on your own, you need to keep the bladder empty or to protect a part of a surgical reconstruction. The catheter may be temporary or there may be no plan or possibility of removing it. This will depend on the reason for the catheter.

In any case, there are some things you can do to make your life with a catheter easier.

- a. Know how to change the **bags** that come with the catheter. The larger bag is best used when you are sleeping or not very mobile. It can fill up with a lot of urine and can be emptied less frequently. The smaller **leg bag** straps to the leg to allow you to be mobile with the catheter. You may be surprised by how many people are out and about with catheters and leg bags – no one could tell they have one!
- b. Avoid applying tension to the catheter or it will become uncomfortable. Often it can be secured to the thigh by a special locking device.
- c. Practice good hygiene: wash your hands before touching the catheter or the bags, and keep the end of the catheter clean where it exits the body. There can often be a discharge that accumulates there, which is normal. Some small amount of leakage around the catheter is not uncommon, and can be caused by the bladder's reaction to the catheter, which is sometimes to spasm to try to expel it from the bladder. If this is an issue, you can take oral medications or suppositories to calm the bladder wall.
- d. Drink enough fluids. If there is bleeding or debris within the tubing, the catheter can become obstructed. This can result in a painful filling of the bladder. This may require flushing of the catheter, and is best prevented by adequate **fluid intake** while you have a catheter. Discomfort where the catheter exits the body is common, and can be managed with lubricants such as petroleum jelly.
- e. Get some training from a qualified health professional. You may be able to access **home care** programs. Most people experience minor inconveniences with a catheter; don't be shy to ask for help if you need it.

8. What is a urethral stricture and how would I know if I have one?

A urethral stricture is an abnormal narrowing of the tube that carries urine out of the body (urethra). This can be something you are born with (**congenital**) or something that is the product of an injury or infection of the urethra.

Examples of a urethral stricture include:

- a straddle-type injury that compresses the urethra against the bones of the underside of the pelvis;
- certain sexually transmitted infections, such as chlamydia or gonorrhea; and
- after surgery on the urinary tract.

People with urethral strictures will notice changes in their urination, which can be difficult to distinguish from other causes of urinary obstruction, such as benign prostatic enlargement. There will often be difficulty starting urination, and the stream will be weak and might require straining to help it flow. Strictures near the end of the urethra can be associated with a urinary stream that sprays rather than stays together in a typical column of fluid.

People with a history of injury, infection or surgery to the urinary tract, or young children, with symptoms like those above might have a urethral stricture, and your urologist will keep these things in mind when you are discussing your urinary symptoms.

The best way to assess for a stricture is through **urethroscopy**, when a small camera is inserted into the urethra in the direction of the bladder. A narrowing or stricture will be obvious to the urologist.

9. Do over-the-counter herbal medications help with my sex life or urinary problems?

In recent years, the use of medications for the treatment of sexual problems (such as erectile dysfunction or low sex drive) and urinary problems (such as bladder overactivity and enlarged prostate) have taken centre stage, and have improved many people's quality of lives, and spared more invasive surgical treatments. It follows that some people seek the same benefits as these medications, but in a form they may consider more "natural." There is no shortage of these herbal treatments for sexual or urinary problems, and in some cases the biological explanation of their worth seems very reasonable. The list of these is far too long for this chapter to cover adequately.

There is also no doubt that there are men and women who have taken these supplements or remedies and have noticed an improvement in the problem they sought to treat. The difficulty arises, however, in truly finding the reasons why the treatment seems to have worked. Modern evidence-based medicine holds that a therapy should be shown to have the desired effect when compared to active therapy (the **placebo**) or to the **current standard therapy** (these are called controls). The key to these trials is that neither the provider nor the patient should be aware if they are taking the new treatment or the control (this is called **double-blinding**), and that the patients are **randomized** to treatment – that is there is no ability to purposely select a particular patient to receive either the study drug or the control. These trials ensure that the new treatment is effective and that it is safe, when compared to no treatment or to the current best option.

Several small trials have shown benefit for some herbal treatments. Few, if any, large trials have shown benefits for herbal or “natural” medicines in these conditions. In fact, a number of large and well-controlled studies have shown that some of the more common herbal treatments are no better than placebo. If ongoing studies or new studies do find a benefit, then these medications will find their role among physicians.

Since high-quality studies are lacking for most herbal treatments, safety issues can be important. Important side effects may be unknown, and interactions with existing medications may be unknown. Prescription or not, these are indeed drugs, and should be treated the same as prescription medications. It is important that your physician and pharmacist are aware of any non-prescription supplements or medications that you choose to take.

It is also important to distinguish so-called “natural” therapies from a generally healthy lifestyle. Certainly a high-quality diet and exercise regimen can be expected to improve your health, and in the case of erectile issues, it is the foundation of effective treatment and improvement.

To summarize this complicated and often emotionally loaded issue: most herbal treatments for urinary or sexual health problems are unproven against placebo or conventional treatment, but seem to be associated with symptom improvement in some men. If you consider taking one or more of these, please make sure that your doctor and your pharmacist are aware, that you feel that you are clearly benefitting from the treatment, and that the costs associated with their purchase are affordable to you.

10. Is it safe to have a vasectomy?

A vasectomy is very common. It is a permanent contraception in men. Like any surgical procedure, it does have its own set of risks, but it is safe. It is not associated with adverse effects on the testicles, including uncomfortable sperm build-up, does not result in any hormonal changes in the man, and is not known to be the cause of any cancers. Some people believe there is a link between getting a vasectomy and prostate cancer. There are no plausible explanations for this except patients who have had a vasectomy are more likely to access the health care system and more likely to have tests that might uncover prostate cancer. You should not be concerned that having a vasectomy increases your risk of developing prostate cancer.

Vasectomy involves interrupting the vas deferens on each side of the scrotum, therefore stopping the flow of sperm out of the testicles. This is typically done through some combination of clips, physical cutting of the vas deferens, **electrocautery** to seal the open ends, and stitches to separate the ends.

Potential complications with a vasectomy

- Bleeding (common): this can be avoided by limiting physical activity for a short period after the procedure.
- Bruising (common): larger bleeding episodes are rare.
- Infection (very rare when done with a sterile technique).

- Pregnancy (failure of the vasectomy) (uncommon), except in rare cases when the surgeon fails to identify the vas deferens. A semen sample obtained three months after the procedure will check to see if any sperm remains. A large number of sperm are “upstream” from the testicle in the **seminal vesicles**, and these can cause pregnancy in the early period after vasectomy. You should use contraception until a semen sample is clear of sperm.
- Pain is expected in the very short term after vasectomy, as with any surgical procedure. This is usually easily managed. Longer-term pain syndromes can happen, but these are very rare and should not be anticipated.

11. Can I have my vasectomy reversed? What is involved? Will it work?

You must think of a vasectomy as a permanent form of contraception. There are circumstances, however, that may cause a man to wish to have the procedure reversed.

Surgical procedures have been developed that can re-establish contact and patency of the vas deferens, to attempt to allow sperm to pass again. The testicles retain the ability to make sperm after vasectomy. These procedures, known as **vasovasostomy** and **vasoepididymostomy**, are complex procedures performed by experts using microsurgical techniques. They are longer and more involved surgeries than the vasectomy itself and are generally done under a general anaesthetic, and are not typically covered by provincial health insurance plans.

They can be successful, and the chances of success will depend on the techniques used, evidence from the operating room that sperm expression is possible, and the time that has passed since the initial vasectomy.

12. Why do I have pain in my testicles?

Scrotal or testicular pain is common and unfortunately poorly understood. Getting to a specific diagnosis and finding the right management plan can be hard and frustrating for you and for your urologist. Usually, testicular or scrotal pain is not life-threatening.

Your doctor will first try to uncover specific causes of your pain, such as infectious causes, hernias, injuries, or, more ominous diagnoses, testicular masses or torsion (twisting of the testicle on its own blood supply). This will be followed by a careful physical exam that assesses the anatomic elements of the scrotum: the testicles themselves and the structures around them, including the epididymis, which stores and transports sperm; the spermatic cord, a set of structures which bring blood, nerves and sperm to and from the testicles; and the inguinal areas (the groin) where hernias develop.

A common diagnosis of scrotal pain is known as **epididymo-orchitis**, or epididymitis. This is an inflammation or infection of the **epididymis** or testicle. In some people, for reasons poorly understood, a **chronic epididymitis** can develop. This can be particularly difficult and frustrating to treat, and can result in impairment of social or occupational function.

Often your doctor will also recommend an **ultrasound**, which will provide a more detailed look at the structures in the scrotum, and the blood flow to them.

Treating scrotal pain depends on the expected diagnosis. There are rarely simple diagnoses, and sometimes many treatments may be tried. The main treatment includes **antibiotics** if an infection is considered. **Anti-inflammatory** medications and pain medications are common, and occasionally the treatment course is longer than with other infections or pains. You may find it helpful to have some scrotal support while you walk – this may relieve the pain. For chronic cases, treatments, such as nerve blocks and, more rarely, surgery, may be required. Scrotal pain often does, however slowly, get better over time.

13. What does blood in my semen mean?

Blood in the semen can be very surprising and alarming, but it is almost always non-threatening. Blood in the semen, or **hematospermia**, commonly occurs after a biopsy of the prostate. The needles cause blood to escape into the ducts and glands that make up the prostate, and the blood then may enter the semen with an ejaculation. Also, after a prostate biopsy, the blood in the semen can last for a month or more, and often goes through a colour change, from red to darker colours, and occasionally can look like black streaks or tar. This is similar to the colour changes you see with a deep bruise on any other part of the body. This happens because the blood pigment breaks down and is reabsorbed by the body.

It is often difficult to find other causes of blood in the semen. Cancer and other threatening diseases are very rarely the cause. Infection or inflammation of the prostate, whether you have symptoms or not, is the most common cause. There is usually little to do, but a thorough history of the symptom, an examination of the genitals and of the prostate, and some urine tests. There is rarely a need for more invasive tests, like blood tests or ultrasound of the prostate. In most cases, the blood disappears on its own.

14. What might cause a rash, spot or sore on my penis?

The skin of the penis is very much like the skin of the rest of the body, and is therefore subject to the same lumps, bumps and rashes. Some genital sores or lesions need special attention.

Malignant lesions of the penis are very rare; they can be dangerous and are different than cancerous skin lesions elsewhere on the body. Most develop in men who are uncircumcised. Lesions are uncommon in men who carefully care for their foreskin and practice good penile hygiene.

Cancers of the penis will present as painless and firm growths, often on the head of the penis, and occasionally causing the foreskin to become stuck. A foreskin that does not retract normally is only *very rarely* caused by penile cancers, so if you are having foreskin troubles, don't automatically think of cancer. **Premalignant** lesions of the penis will often have sharp borders and be velvety in texture.

Lesions or sores can also spread by physical or sexual contact. If a new skin change appears on the penis, consider your recent sexual history.

- Common lesions include those from **herpes virus**, which will often appear as small blisters called **vesicles**, and will often come with or after flu-like symptoms. These are painful and red areas of the penile head or shaft skin.

- **Condylomata**, or **genital warts**, are also common, and typically have a flat, whitish appearance. They can be considerably larger in some cases, and have a cauliflower-like appearance.
- More rare sexually transmitted infections with characteristic penile lesions include **syphilis** and **chancroid**.

It is important to have these problems identified and treated; you also must inform your sexual contacts.

There are other non-threatening causes of skin changes of the penis. Other infections and masses, such as **yeast infections** or **sebaceous cysts** (blockages of the hair follicles that fill with the body's natural oils) are common. Also common and seen in some men with foreskin issues is a whitish, indistinct process of the head of the penis called **BXO**. This is relatively common and benign, but can cause local problems with the foreskin or narrowing of the **urethral meatus** (the hole the urine comes out) and, in rare cases, can be followed by the development of malignancy.

15. I have a hydrocele. What can be done about it?

Hydrocele is very common; it is a fluid-filled sac the size of one half of the scrotum.

In babies and children, the causes can be different, as there can be a persistent connection from the abdominal cavity (the space between the abdominal wall and the spine) to the testicles.

In adults, hydroceles are usually within the scrotum, and are caused by some imbalance of the fluid that lubricates the space between the testicle and the rest of the scrotum, lined by a membrane called the **tunica vaginalis**.

If an infection or injury (or some other cause not identified) causes an imbalance between the production and the body's reabsorption of this fluid, it builds up around the testicle. Hydroceles are almost always benign, and are not a sign of defective testicles. The existence of hydroceles make it harder for your doctor to examine the testicles because the hydroceles hide the testicles.

Hydroceles are relatively small and don't cause symptoms. They can, however, become large, can occasionally become tense or painful, and can get in the way of physical activity or even sitting. In these cases, you may want to consider surgery. In a mild, small or painless hydrocele, surgery is not recommended because of the small, but real, risks associated with the surgery.

In large, painful hydroceles, treatment is usually corrective surgery. If you cannot tolerate surgery, the contents of the hydrocele can be withdrawn by syringe (**aspiration**), with or without injecting an agent to cause inflammation and prevent the fluid buildup (**sclerotherapy**).

Surgery generally involves no hospital stay, and an incision made on the scrotum. The **hydrocele sac** is isolated from the scrotal wall and incised, and the fluid drained. The lining of the hydrocele can then be flipped around the other side of the testicle (like undoing your jacket and doing it up again behind your body), or it can be collapsed on itself with stitches, like an accordion.

Both of these are meant to prevent the fluid from collecting again in a closed space and recreating the hydrocele. These repairs are very effective, but there are small risks of bleeding, which can be difficult to control in the scrotum. This is why the surgeon will counsel against physical activity for a short period and may place a temporary but uncomfortable dressing to immobilize the scrotum. The scrotum will generally always feel somewhat different after a hydrocele repair.

16. Why is there so much controversy about PSA? Should I have one drawn?

The role of PSA (**prostate-specific antigen**) is a very complicated and controversial one. In people without a diagnosis of prostate cancer, PSA is a blood test used to help screen for a higher risk of prostate cancer, and therefore the need for a biopsy of the prostate to find out. The problem is that PSA is not perfectly specific to prostate cancer, and so can be raised in other conditions, which creates confusion when assessing a high or rising PSA. If you have an enlarged prostate, it will be expected to make more PSA, resulting in a higher number. Other things associated with an elevated PSA include infection or inflammation of the prostate (**prostatitis**), biopsy or vigorous massage of the prostate, ejaculation, prolonged bicycle riding, and no doubt many others. Some men simply seem to have higher or highly variable PSA levels for unexplained reasons.

The above reasons are why there is no true “normal” value for your PSA to be compared against. In deciding whether to worry about a PSA, your urologist will take many things into accounts, including the above list, as well as your age, health status and family history of prostate problems, including cancer. The PSA level at previous times can also be very helpful in assessing risk.

One complaint you may have encountered is that PSA testing leads to too many prostate biopsies, too much anxiety among patients and the discovery of small prostate cancers that were never destined to harm the patient. It is certainly true that the discovery and use of PSA has increased the number of men diagnosed with prostate cancer, and that these diagnoses occur earlier in the progress of the disease than before the “PSA era.” It is also true that all prostate cancers are not created equal, and that indeed some may never require treatment (please see the Prostate Cancer chapters in this book).

These issues aside, there is little question that since PSA was discovered, the rate of death from prostate cancer has decreased, and that PSA, used appropriately, is a helpful test. The important part is finding the best time to use the test.

Should you get a PSA test? The Canadian Urological Association has said that PSA testing should be offered at age 50 to every man who is expected to live more than 10 years, and to those of African descent or who have a strong family history of prostate cancer starting at age 40. The two important points here are that a man should be of good health and long life expectancy. Prostate cancer in its most common forms is a slow-growing disease with a very long course between diagnosis, symptoms, complications and death (which may never come due to the disease). Many more men die *with* prostate cancer than *of* prostate cancer. Diagnosing a man with prostate cancer who has medical issues or advanced age that are a bigger threat to his life than the cancer itself is not helpful, and would only be expected to create anxiety and risk to that man. The other important point is that the test is offered, not mandatory. After your discussion of the risks and benefits of screening, if you feel that you would not accept a prostate biopsy, or would not allow yourself to be subjected to any treatment or surveillance protocol for prostate cancer (please see the Prostate Cancer Treatment chapter for details), then it does not make sense to have the test performed. Having a frank conversation with your doctor or urologist is important in this decision.

17. I have to have surgery for a urological problem. How long will it take me to recover from it?

After urological surgery, the first and most important thing to do is to heed your urologist's advice about recovery and your physical limitations. Generally, recovery depends on the type of surgery. There are many urological surgeries, and any incisions often affect your recovery.

- a. **Endoscopic procedures** may have relatively short recovery times, particularly if no incision has been made on the inside, such as an uncomplicated treatment of a kidney stone. If tissue is removed, such as a bladder tumour resection or a reaming out of the prostate (**transurethral resection of the prostate – TURP**), even though there is no incision on the outside, there has been cutting on the inside and you should limit your physical activity and abdominal straining for a time to prevent bleeding.
- b. After **outpatient procedures**, such as minor penile and scrotal surgeries, you should limit your activity for a short time to prevent bleeding. Sexual activity is often restricted for a time after penile surgery.
- c. **Major incisions of the abdomen or pelvis**, for operations on the kidneys, bladder or prostate, will often require a hospital stay and a longer recovery. This is because your abdomen has been opened by the incision. You will be encouraged to walk soon after surgery and should continue to do so at home, but you should avoid exertion or heavy lifting as your incision heals. This will take longer for incisions that cross the body under the rib cage (for kidney surgery most often) than for incisions in a straight line from top to bottom, which will often avoid cutting through the abdominal muscles. In either case, walking and good deep breathing will speed the healing process and help reduce lung complications, like local lung collapse and pneumonia.
- d. **Laparoscopic or keyhole surgery** procedures are distinct. Their purpose is generally to spare the pain and potential complications of major incisions, and to decrease recovery time. Still, remember that major surgery has gone on underneath the surface, so there are still some risks.
- e. Other important considerations have to do with setting up your home. If you live alone or have many stairs, you may want to consider getting help for your first days at home. You will generally not be sent home until you are considered safe there, but having friends or family nearby can be very helpful.

These are very general guides to help you. Your surgery is unique to you and you should follow your surgeon's advice about your recovery timeline and expectations.