



LIFE AFTER PROSTATE CANCER

Managing Urinary Incontinence

Urology Care
FOUNDATION™
*The Official Foundation of the
American Urological Association*

WHAT IS URINARY INCONTINENCE AFTER PROSTATE CANCER TREATMENT?

Urinary incontinence is urine leakage without your control. In most cases, your brain signals the muscles in the neck of your bladder to either hold or let go of urine. Surgery for prostate cancer may upset these signals and cause problems with urine control.

Men may have many types of urinary incontinence after prostate surgery.

- **Stress incontinence** – Coughing, laughing, sneezing, or exercising can strain the pelvic floor muscles, causing urine to leak. This is the most common type of urinary incontinence.
- **Urge incontinence** – You feel a sudden, urgent need to go to the bathroom, even when the bladder isn't full. This happens because the bladder is overly sensitive. Urge incontinence is also called overactive bladder.
- **Urinary frequency** – You go to the bathroom very often. You may feel the need to go every 30 to 60 minutes.
- **Mixed incontinence** – You have symptoms of more than one type of urinary incontinence.

Though incontinence can be a side effect of prostate cancer care, it is often brief. There are things you can do to help get better bladder control faster.

WHO IS AFFECTED AND HOW LONG WILL INCONTINENCE LAST?

It's common to have urinary incontinence for a time after prostate surgery. If you have stress incontinence, you may need to wear pads for a few weeks or months. In most cases, urinary control will return. Still, incontinence may last as long as 6 to 12 months. It's less likely for it to last more than a year.

HOW IS URINARY INCONTINENCE TREATED?

There are a number of treatment choices for urinary incontinence.

- **Physical therapy.** Your doctor can write you a prescription for physical therapy. Most health plans will cover it. Physical therapists may use a number of techniques to help you regain bladder control.
 - **Kegel exercises.** These exercises strengthen the pelvic floor muscles, which are vital for bladder control. Kegel exercises train them to keep urine in the bladder. If you're going to have prostate cancer surgery, your doctor may suggest that you start doing these exercises before your surgery.
 - **Biofeedback** may be used with Kegel exercises to help you judge how well the pelvic floor muscles are working and whether you're doing the exercises the right way.

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Life After Prostate Cancer: Managing Urinary Incontinence

- **Neuromuscular electrical stimulation** uses a tool that sends electrical impulses to nerves. This causes muscles to contract. It may be used with Kegel exercises to help train the pelvic floor muscles to contract the right way.
- **Timed voiding** is a way to reduce urinary frequency with planned bathroom visits. It's used to help your bladder spread out so that it can hold more urine. Your nurse or doctor can help you make a plan for timed voiding.
- **Avoiding bladder irritants.** These foods and drinks can bother the bladder in some men:
 - Caffeine in coffee, tea, and sodas
 - Acidic drinks such as juices
 - Alcohol
 - Artificial sweeteners
 - Spicy foods
- **Medication** can calm bladder irritability and help reduce urine leaks.
- **Surgery** is mainly offered if return of continence is not complete after at least a year. Your doctor will talk with you about surgical choices if other treatments haven't helped with your urinary problems.
- **Products** such as pads can help reduce discomfort from urine leakage.

WHAT ARE THE SIDE EFFECTS OF INCONTINENCE TREATMENT?

Kegel exercises often do not have side effects. Your doctor can talk with you about the pros and cons of each treatment choice and help you decide what's best for you.

OTHER CONSIDERATIONS

It's always of great value to talk with your healthcare providers about urinary problems. Your doctors can help you decide which treatments may help, at any time.

ABOUT THE UROLOGY CARE FOUNDATION

The Urology Care Foundation is the world's leading urologic foundation – and the official foundation of the American Urological Association. We provide information for those actively managing their urologic health and those ready to make health changes. Our information is based on the American Urological Association resources and is reviewed by medical experts.

To learn more, visit the Urology Care Foundation's website, **UrologyHealth.org/UrologicConditions**, or go to **UrologyHealth.org/FindAUrologist** to find a doctor near you.

DISCLAIMER

This information is not a tool for self-diagnosis or a substitute for professional medical advice. It is not to be used or relied on for that purpose. Please talk to your urologist or health care provider about your health concerns. Always consult a health care provider before you start or stop any treatments, including medications.

For copies of printed materials about Prostate Cancer and other urologic conditions, visit **UrologyHealth.org/Order** or call 800-828-7866.

STEP 1: PRESERVE

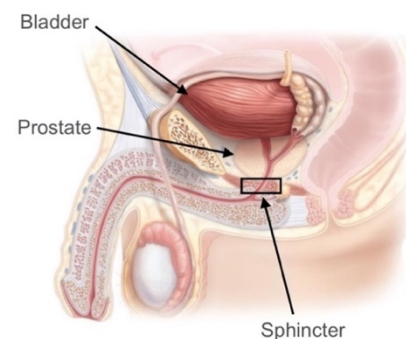
This handout goes through STEP 1 of the UroPlan Restoration Roadmap and explains how pelvic surgery can affect both bladder control and erections. Things are organized in a question/answer format and have been broken into two sections with the first addressing bladder and urine control and the second addressing erectile preservation. **This first step is what men should focus on prior to surgery and continue throughout the recovery process.** Please remember that each of the exercises and therapies discussed here should ideally be started prior to surgery and continued throughout the healing process in the months following surgery.

Section 1: Bladder and Urine Control Preservation

How does bladder control work and how does prostate surgery affect it?

Bladder control, also known as continence, is the ability to hold urine without leaking. This is mostly controlled by a small muscle known as the urinary sphincter. This muscle wraps around the urine tube, known as the urethra, and squeezes it shut, preventing urine leakage.

The sphincter is very close to the prostate and, as such, can be stressed when the prostate is removed. In addition, the prostate itself helps with urine control. As a result, most men will experience some degree of bladder leakage following prostate removal as the sphincter recovers from surgery and works to control urine flow by itself as the prostate is no longer there to help it.



How can we promote early recovery of bladder and urine control?

The sphincter is a muscle and, like other muscles, gets stronger with regular exercise. The ideal exercises that can help with the recovery of urine control are known as Kegel exercises. These are a type of pelvic contraction that work the sphincter and other pelvic muscles that assist with bladder control. Here's a step-by-step regimen for performing Kegel exercises:

1. Locate your pelvic muscles. Pretend you are trying to avoid passing gas or, when urinating, try to stop your urine stream. If you've identified the right muscles, you'll feel the contraction more in the back of the pelvic area than the front.
2. Choose your position. Start by lying on your back until you get the feel of contracting the pelvic floor muscles. When you have the hang of it, practice while sitting and standing.
3. Work on contracting while relaxing your other muscles. Contract your pelvic floor muscles for 3-5 seconds. Relax for 3-5 seconds. Repeat the contract/relax cycle 10 times. Don't contract your abdominal, leg, or buttock muscles, or lift your pelvis. Place a hand gently on your belly to detect unwanted abdominal action.
4. Extend the time. Gradually increase the length of contractions and relaxations. Work your way up to 10-second contractions and relaxations.
5. Aim high. Try to do at least 30 to 40 Kegel exercises every day. Spreading them throughout the day is better than doing them all at once. Since these are stealth exercises that nobody notices except you, try to sneak in a few when waiting at a stoplight, riding an elevator, or standing in a grocery line.
6. Diversify. Practice short, 2 to 3 second contractions and releases (sometimes called "quick flicks").
7. Kegel exercises in an emergency. After surgery, if you leak urine when you cough, sneeze, laugh, bend over, or lift something heavy (known as stress incontinence), doing one or more Kegels before a 'trigger' may be enough to prevent any leakage. If you have the urge to urinate and doubt you are going to make it to the toilet, doing Kegels may get you safely to a restroom.

Click the QR code or visit this website to watch a helpful video for Kegels: <https://tinyurl.com/38r5hk59>

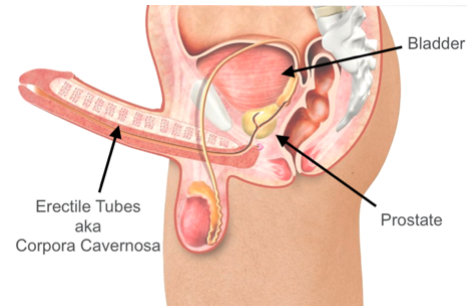


As with our other interventions, **we recommend that men start practicing their Kegel exercises as soon as 2 weeks prior to surgery and resume them after their catheter has been removed.**

Section 2: Erectile Preservation

How do erections work?

Regarding sexual function, the male erection is essentially the result of two inflatable tubes that start in the pelvis and extend down the length of the penis. These tubes are known as the corpora cavernosa. When a man is aroused, an electrical signal travels from the brain to the deep nerves of the pelvis, to the arteries that supply these inflatable tubes. These arteries expand and allow the rush of blood that provides an erection.

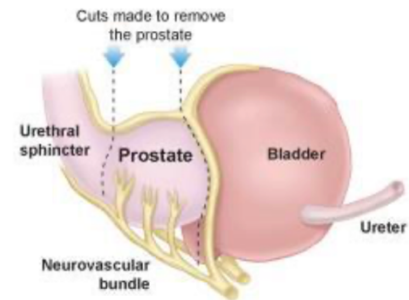


How does pelvic surgery affect erections?

The nerves that supply erection are densely attached to the prostate. Completely removing them disrupts the pro-erection electrical signal that comes from the brain, preventing erections. Many men undergo what are known as 'nerve-sparing' procedures if their anatomy and cancer allows it. With this approach, these nerves are gently separated from the prostate, which improves men's chances of recovering sexual function.

However, even if these nerves are spared, men will still experience a temporary 'paralysis' of the nerves that can take several months to resolve. This does not affect sensation, but it will prevent men from achieving erections immediately following surgery. This presents a challenge.

The soft, spongy tissue inside the erection tubes of the penis requires significant blood flow to stay healthy. Practically, this is provided by the 3-4 erections most men achieve while sleeping or upon waking up. These daily erections go away when a man undergoes prostate surgery. Even if a man's nerves are spared and are only temporarily 'paralyzed,' this lack of regular blood flow can cause significant scarring inside the erectile tubes. Ultimately, this leads to a loss of penile length, a loss of penile girth, and ultimately worse erectile function even if a man's pelvic nerves eventually recover from surgery.



The goal of the penile rehabilitation portion of the UroPlan Restoration Roadmap is to exercise and **preserve** this tissue to keep it as healthy as possible as the pelvic nerves recover from surgery. This gives men their best chance to preserve their natural sexual function.

Does prostate removal affect ejaculation?

When a man experiences climax, there are several processes that occur simultaneously. The pleasurable sensation that accompanies climax is known as orgasm, while the pelvic contractions and expulsion of semen is known as ejaculation. When the prostate is removed, the expulsion of fluid is lost. Orgasm is pleasurable, and men will still experience pelvic contractions with climax, but no fluid will come out the tip of the penis.

How can we preserve the erectile tissue while the pelvic nerves recover?

There are three main components to erectile tissue preservation following pelvic surgery:

- 1) A daily dose of tadalafil 5 mg (aka generic Cialis)
- 2) At least once daily use of a vacuum erection device (also known as a VED)
- 3) Twice daily dose of L-citrulline 1500 mg

What is the medication tadalafil (also known as Cialis)?

Tadalafil (the generic name for Cialis) is a medication known as a 'phosphodiesterase inhibitor.' It is typically prescribed to men with mild erectile dysfunction to boost the chemical pro-erectile signals in the penis. This can allow men with mild erectile dysfunction to achieve erections by improving blood flow to the penis.

In the context of penile rehabilitation, the prescribed daily dose of tadalafil is unlikely to cause regular erections immediately following surgery. Rather, it promotes blood flow to the erectile tissues which can help reduce scarring and shrinkage as the pelvic nerves recover. It should be taken every day leading up to and following surgery, regardless of whether sexual activity is desired.

Although tadalafil is incredibly safe, it should NOT be taken by men who are also taking 'nitrate' containing medications as it may cause an unsafe drop in blood pressure. Some examples of these include nitroglycerine tablets, isosorbide mononitrate, and nitroglycerine patches.

What is a Vacuum Erection Device, also known as a VED?

A VED is an external pump that a man can use to achieve an erection and it is an important part of penile rehabilitation following prostate removal. By creating a seal with the skin and evacuating air from within the cylinder, blood is pulled into the erectile bodies of the penis. This can induce an erection under most circumstances. Regular use of the VED following surgery can help keep a man's erectile tissues healthy while his nerves are recovering. This helps to reduce the loss of penile length and girth many men report following surgery and minimizes scarring within the erectile bodies caused by lack of regular blood flow.

What are the side effects of the VED?

Although the VED is generally considered to be safe, some men may experience bruising because of the suction. This is typically mild, but men who are on blood thinning medication (like coumadin, Warfarin, rivaroxaban, Xarelto, clopidogrel or Plavix) are at a higher risk and should use caution when using their VED. Some men report that the VED is uncomfortable when they are first learning how to use it.

Which VED should I use?

There are many different types and brands of VED. The VED can either be a manual pump or battery powered. The Osbon Esteem Manual by Timm Medical Technologies is a cost-effective manually operated vacuum device that, although not battery powered, can provide equivalent results provided patients are willing to invest the extra effort required by manual devices. To learn more or to purchase this device, scan the QR code or visit this website: <https://tinyurl.com/237352w3>



VEDs are typically not covered by most major insurance companies, but they can often be purchased using funds from a health savings account, also known as an HSA.

What exercise schedule should I follow with my VED?

We recommend the following exercise regimen.

- Step 1:** Please apply a water-soluble lubricant to the head of your penis, inside the cylinder (about finger length deep), and around the opening/rim of the cylinder (imagine you're putting toothpaste on a toothbrush).
- Step 2:** Place your penis in the cylinder and give it a slight twist against your body to 'seat' the lubricant and ensure an air-tight seal.
- Step 3:** Press and hold the power button for 3-5 seconds, then pause for 3-5 seconds and repeat. You will continue to pump in intervals of 3-5 seconds on and 3-5 seconds off until you achieve a full erection. This process usually takes

about 1 ½ to 2 minutes. For manually operated devices, you will need to replicate the above process using the hand pump. Fully pump the device until you've achieved a full erection.

Step 4: Once fully erect, hold the erection in the cylinder for 30 seconds. After 30 seconds, press the release button to release the vacuum. This will allow your erection to come down.

Step 5: Please repeat steps 2-4 for 10-15 minutes – the goal is to try to create between 8-12 erections in that time span.

Frequency: **We recommend that patient complete the above 10-15 minutes exercise regimen at least once daily for best results.** If daily use is not possible, at least every other day usage should be considered.

What if I can't use a VED for some reason?

For men who can't use a VED, we recommend using a penile traction device. These are devices that gently stretch the penis. However, because they don't utilize suction, bruising is rarely an issue. Although there are many different models, we typically recommend the PeniMaster Pro with the rod extender system or the RestoreX traction device. The PeniMaster Pro with the rod extender system is available at www.penimaster.com while the RestoreX traction device is available at www.restorex.com. Men should apply and wear their device for at least 30 minutes a day, every day.

When should I start my exercises?

Generally, we recommend that patients purchase their VED or traction device and start practicing their exercises as soon as 2 weeks prior to surgery. This allows men to get comfortable with their device as soon as possible. Following surgery, we recommend starting your exercises as soon as your catheter is removed. This may not be possible for men who are experiencing significant urinary leakage. We recommend trying to void completely prior to starting your exercises and perform your first few sessions lying flat in bed with your head and shoulders supported by pillows.

If you are still leaking, it's ok to delay starting your exercises until this improves, although we strongly recommend that patients should try to start no later than 1 month following surgery. If you are still leaking slightly at this point, you can put some light absorbent material at the end of the cylinder to absorb any urine that leaks (toilet paper, facial tissue or cotton balls all work well and are light enough to not affect vacuum). This will help avoid urine being pulled into the diaphragm which could damage the pump mechanism.

What about the supplement L-citrulline?

L-citrulline is a dietary supplement that is readily available over the counter and does not require a doctor's prescription. Like the tadalafil mentioned above, it has been shown in studies to boost the chemical pro-erectile signals in the penis, although it does so in a slightly different mechanism. That's why we recommend that men take L-citrulline in addition to their daily tadalafil.

We recommend a dose of 1500 mg twice daily. Although we do not recommend any brand, L-citrulline can be purchased easily from most health food stores or ordered online from Amazon (<https://amzn.to/2XJeAAu>). As with both the daily tadalafil and VED, we recommend that patients start taking their twice daily L-citrulline as soon as 2 weeks prior to surgery.

Conclusion

That's it! Those are the key exercises and interventions for both bladder/urine control and erectile preservation. **This is what you should focus on leading up to surgery and continue throughout the recovery process.** Although complete recovery is never guaranteed, these practices give men the best chance possible at recovery following prostate surgery.