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Sexual Health Clinic

Post Radical Prostatectomy Sexual Function - How we can help after your upcoming procedure

Normal Function

To preserve penile health, men naturally have 3-5 erections each night, with the penis filling with blood and the tissues being stretched. ED is more common in men over 40 years of age and in men who have had prostate surgery, heart disease or are diabetic.

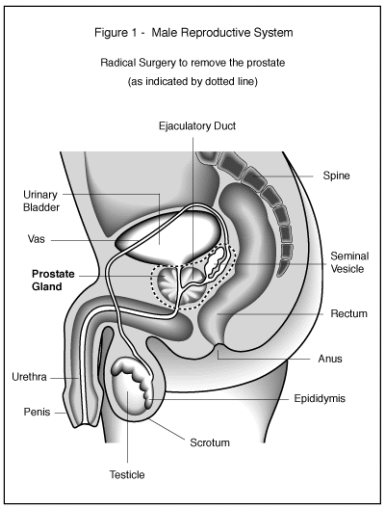
Lifestyle factors are important in preserving erectile function; obesity and lack of exercise are risk factors for erectile dysfunction. Interventions for ED are sought for various reasons, some seek treatment purely for the psychological aspect of being able to achieve an erection, whilst some men are interested in preserving penile health and some men are seeking treatment in order to be sexually active.

Erectile dysfunction after surgery

Erectile dysfunction (ED) is a common problem for men after radical prostatectomy, as the erection nerves are closely related to the prostate gland. Sexual function after surgery is determined by three things; the first is pre operative function, the second is the degree of nerve sparing done and the third is the rehabilitation. Nerve sparing is not always possible, especially if the cancer is invading the nerves. Those most at risk of losing erections have impaired function pre op, or have more advanced disease. Your individual situation should be clearly discussed pre op.

Sexual function after Radical Prostatectomy

Radical prostatectomy is performed with increasing frequency as the most common treatment for prostate cancer. Prostate cancer is the commonest cancer in men and is often diagnosed in men in their 50's and 60's otherwise in the "prime of life." As surgical techniques and expertise have improved, the incidence of side effects has lessened substantially; unfortunately serious effects on a man's sexual function, particularly his ability to get an erection remain an almost universal problem.



In radical prostatectomy the prostate gland along with the seminal vesicles and a length of urethra are removed. Nerves supplying the erectile “message” pass closely around the prostate gland like a spider’s web and are often damaged even when nerve-sparing techniques are used. As a result, a man will normally lose the capacity to have erections immediately after the operation, however with time, there is usually some return of erections. In part, the return of erection depends on the degree of nerve sparing achieved during surgery. To use nerve-sparing surgery or not is a choice that the surgeon is only able to make at the time of surgery, since to spare the nerves but leave cancer behind would defeat the purpose of the operation. Blood vessel damage can also occur particularly should the patient have an accessory pudendal artery supplying the penis. The use of radiotherapy may further damage the nerves and blood vessels and such damage can get worse over a number of years with late scarring. Hormone ablative therapy will cause a sudden drop in testosterone giving the man an artificial “male menopause.” This will profoundly affect a man’s interest in sex as well as making the penis less responsive.

With absent erections the health of the penile tissues is adversely affected. Lack of tissue stretching and low oxygenation leads to damage to the smooth muscle cells and the development of fibrosis. Such changes may cause permanent ED and penile shortening.

There is now good evidence that early use of medication/exercises to restore erections after surgery can improve the chances of recovery of erectile function; this is known as “penile rehabilitation.”

After radical prostatectomy, whilst the penis may not be as responsive to visual stimulation, more direct stimulation of the penis may be helpful. It is possible to have vaginal intercourse with a partial erection and stimulation within the vagina may encourage further and better quality erections. Some people find the erection is stronger when standing up.

Because the majority of ejaculatory fluid is made by the prostate and seminal vesicles, and also that the valve effect of the gland is lost, a man will not ejaculate after radical prostatectomy; he can however reach orgasm, even without an erection. Such an orgasm is “dry” but just as pleasurable and less messy! Most men experience a change in the sensation but this can be an increase rather than a decrease in sensation. Some men experience leakage of urine or pain with orgasm but this is usually a temporary problem.

Shortening of the penis is thought to be due to retraction with tissue fibrosis during the healing phase. Regular erection or use of a vacuum pump can be useful in preventing this.

Treatment options

Medications: Phosphodiesterase type 5 inhibitors (PDE5i), medications such as Viagra (Sildenafil), Spedra (Avanafil) and Cialis (Tadalafil) are useful in many men. PDE5’s improve blood flow and increase erections. They are generally not helpful if there is no erection, but can be used after surgery even when erections are yet to start to keep penile tissue healthy. Some men, including those on certain heart medications may be unsuitable for PDE5’s. ‘On demand’ medication involves taking a full dose of a PDE5i, such as Viagra (Sildenafil), to achieve or boost an erection. Desire and sexual stimulation are necessary for the medication to work.

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Vacuum Devices: Vacuum devices are cylindrical tubes placed over the penis, air is pumped out of the cylinder and as the pressure builds up blood is drawn into the penis. To aid in preserving penile tissue health in men who cant get erections, vacuum devices can be used regularly. Vacuum devices can be used on demand with a constriction ring placed to keep the erection long enough for sexual intercourse. The constriction band must only be on for 30 minutes at a time. These devices can be purchased from medical suppliers and most sex shops. Some health funds will reimburse you for the purchase of the device. You will need instructions from Melissa on how to use these devices.

Injection therapy: Intracavernosal injections (ICI) offer an alternative for men who are unsuitable for PDE5i or who do not respond to them. ICI's do not require the nerves to be functioning, so they have a low failure rate. The injections relax smooth muscle, increasing blood flow to the penis. Interested men will be helped to overcome the apprehension of self-injecting, and be taught how to inject into the penis. Melissa will teach you how to draw up and administer the medication, how to titrate the dose and provide ongoing support for you.

Penile Prosthesis: Men who are unsuitable for, or fail the above mentioned treatments, may wish to discuss the option of a permanent penile prosthesis. A prosthesis is a mechanical device implanted into the penis, which is activated via an implanted activation button in the scrotum. It involves a surgical procedure, but once implanted can offer a long-term solution for erectile dysfunction. Melissa can discuss the prosthesis and procedure in detail with you.

Injection therapy: What is it?

Intracavernosal injections (ICI) are a great treatment option for men post prostatectomy who are waiting for return of erections. ICI is also a good option for men who have had non-nerve sparing surgery or who have been unresponsive to tablet medication.

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How will I learn how to do this?

You will have one initial education session with Melissa to learn how to safely perform an ICI. This appointment will include the following:

- Normal mechanism of erections
- Erectile dysfunction
- Sexual re-navigation
- Education about the medication, side effects and contraindications
- Practice drawing up, preparing a model penis and injecting a model penis
- Drawing up and titrating the dose of medication
- Preparing the site for injection on yourself
- Injecting yourself
- Education on troubleshooting injection management and priapism.

How do I know how much to use?

It is crucial that you follow direct instructions from Melissa, you should never inject more medication than you have been told to, or give yourself a 'top up dose' should the initial dose not work. You will be in close contact with Melissa to titrate the dose to a level which is appropriate for you. It can be a time consuming and somewhat frustrating process titrating the dose until you find the dose that is right for you, but it is crucial that we work up the dose slowly to avoid complications. You must not inject more than once in a 24 hour period and you should not inject more than 3 times a week. You should feel some effect of your injection within 5-15 minutes and the erection may last for anywhere up to an hour. Within 2 hours you should have no erection.

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Is there discomfort with the injections?

Some people experience pain from ICI, if this is the case we will work with you and the compound pharmacy to change the medication. You may experience bruising from the injection, we teach you where to inject and how to apply pressure to the injection site to minimise this. Some people experience headaches and dizziness from the ICI, you can take Panadol and lay down if this happens.

What are the potential side effects?

Some people get scar tissue from the injections, it is important to follow instructions from Melissa with regard to injection technique. You must rotate the site of the injection and monitor your penis for lumps and bumps or curvature, which can indicate scaring. If you are using injections for a prolonged period of time, you need to have regular check ups with Melissa to check for scar tissue.