Erectile dysfunction (ED) is a common problem with many causes, including treatments for prostate cancer. The condition can be temporary or permanent and can greatly affect a man’s quality of life. There are a variety of treatment options available to men who have trouble getting or keeping an erection.

Unfortunately, men who have difficulty getting erections before prostate cancer treatment are less likely to regain erectile function after prostate cancer treatment.

How do prostate cancer treatments affect sex?

Surgery: During prostate cancer surgery, the bundles of nerves and blood vessels alongside the prostate may be removed or damaged. This often causes erectile dysfunction which can be temporary or permanent.

Sometimes it is possible for your doctor to ‘spare’ the nerves. Even if the nerves are spared there is no guarantee that erections will be regained.
During the months after prostate surgery most men will find it hard or impossible to have a ‘natural’ erection without the help of medication or other treatments. It can take up to 2 years to find out if natural erections will return.

After a prostatectomy, you will get a dry orgasm. This is because the glands that make semen are removed during the surgery. You may find that the sensation of orgasm is different after your surgery. You may notice that your penis appears shorter after prostate cancer surgery. Some small studies have shown that improving blood flow to the penis after surgery may help to stop this from happening.

Radiation: Men who have external beam radiotherapy or brachytherapy (seed implants) can develop erection problems. This may happen some months or even years after treatment. The bundles of nerves and blood vessels in the area become scarred, leading to some or complete loss of erection.

After radiotherapy, there is less semen produced during orgasm.

Hormone therapy: Testosterone is the male sex hormone needed for getting an erection. Hormone treatments for prostate cancer can be given to lower the level of testosterone in the body. This can cause a loss of erections and loss of libido (desire for sex).

Fertility

If you are concerned about fertility (being able to father a child) you should talk to your doctor about this before you start treatment for prostate cancer. For more information on this see the booklet Understanding Prostate Cancer available from the Irish Cancer Society.

What is erectile dysfunction?

Erectile dysfunction is when a man cannot get or keep an erection strong enough for sex. It is not the same as loss of libido (desire for sex) or being unable to get an orgasm or ejaculate. Some prostate cancer treatments cause erectile dysfunction but have no effect on your interest in sex, while other prostate cancer treatments affect both erections and libido.

ED is more likely to happen to men as they get older.

How does an erection happen?

Erections happen when the penis becomes full of blood. After sexual stimulation, chemical messages are sent from the brain through your nerve supply, telling blood vessels in the penis to let blood in. Increased blood flow causes the penis to harden and an erection happens. The male sex hormone testosterone is needed for normal erections.

It is usual for men to have several erections during the night when they are sleeping, or as they wake up.

What causes erectile dysfunction?

There are many causes of ED; some men have more than one cause for their erection problems. Other causes include:

1. Psychological causes: Emotional or psychological problems can cause or make ED worse. These include depression, marriage or relationship difficulties, worry about your diagnosis, work stresses and anxiety about sexual function.
2. **Medicines and drugs**: treatment for other illnesses can cause ED as a side-effect. Drugs used to treat prostate cancer often cause ED. Drinking too much alcohol can also cause erectile dysfunction.

3. **Physical causes**: These can be grouped into three basic problems:
   
a. **There is reduced blood flow to the penis due to hardening of the arteries.** Conditions such as diabetes, high blood pressure, high cholesterol and smoking can cause hardening of the arteries, leading to Erectile Dysfunction.
   
b. **There is not enough blood stored in the penis during an erection.**
   
c. **There is disruption of nerve messages to the penis.** Surgery to the pelvic area, such as a radical prostatectomy, can cause damage to the nerves to the penis.

4. **Prostate cancer treatments**: Treatment for prostate cancer can commonly cause ED. These include:
   
a. Surgery to remove the entire prostate gland.
   
b. Radiation therapy, either by external beam or seed implants.
   
c. Hormone therapy.

**How is ED treated?**

No matter what has caused your erectile dysfunction, there are treatments you can try to help. Your doctor will advise you on the best treatment for you, depending on your medical history.

The treatment options for ED include:

- **Oral tablets**
- **Penile injections**
- **Urethral Pellets**
- **Vacuum pump**
- **Penile implants**
- **Counselling**

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**Oral medications**

Viagra, Cialis and Levitra are tablets that can help men to get erections. Your doctor will tell you if you are suitable for this treatment. You need to have an interest in sex and need sexual stimulation for them to work.

The tablets need to be taken at least 30 minutes to an hour before they start to work. Viagra and Levitra stay in the body for up to four hours and can work within this time. Cialis stays in the body for longer, up to 36 hours and can still have an effect in this time.

Viagra may work better if you have not had a heavy meal before you take it. Cialis and Levitra are not affected by food.

If the drugs do not work the first time it is worth trying them at least four to eight times before deciding to try another. If taking the full dose of one drug doesn’t work for you it is possible that one of the other drugs may work for you.

The medication may cause mild side-effects such as headaches, flushing, dizziness, indigestion and muscle aches. People who have heart disease should take it with caution and as prescribed by their doctor. The medication should not be taken with any nitrate therapy. Some drugs for urinary flow problems can interact with these tablets also. Your doctor will decide the best dose for you and decrease or increase the dose as necessary.

**Penile injections**

Most men feel horrified at the sound of penile injections. You will be taught how to inject yourself in the hospital and then once you are able to master the injection you can inject yourself at home. The needle used is very fine; the injection is given into the ‘spongy’ tissue on the side of the penis.

Injections into the penis such as alprostadil (Caverject) can work well for men with ED. It can be effective in about 7 out of 10 men.

The drug causes the penis to fill with blood and you will get an erection within about 15 minutes.
Most men find the sensation just like a pinch or sting. The erection lasts from 30 minutes to 2 hours. It should not be used more than two to three times a week. The most common side-effect is pain in the penis and bruising at the injection site. The first dose is given by your doctor in the hospital so that they can see how well you respond and to see the best dose for you. Then you or your partner will be taught how to give the injection.

**Urethral Pellets or suppository**

The same drug used in the injections is also available in a small pellet which is used by inserting the pellet into the opening of the penis. This is called MUSE. The pellets do not work as well as the injections but can be effective for some men.

Once the pellet is put in it needs to be massaged in to the penis to help it melt. If the pellets work you should get an erection within 5 to 15 minutes.

Some men get some pain in the penis or testicles after using the pellets. Other side effects include redness or burning sensation in the urethra (water pipe).

Muse works only when there is sexual interest and sexual stimulation.

**Vacuum pump**

A plastic tube is placed over the penis, then using a pump you create a vacuum which allows blood to flow into your penis, causing an erection. A rubber ring is then put around the base of your penis to hold the blood in the penis and help to keep the erection. The ring must be removed after no more than 30 minutes to allow the blood in your penis to circulate and prevent any swelling.

This device is suitable for almost everyone. Some men prefer it because it avoids the use of drugs. It can also be used for men who have partial erections naturally. If you take blood thinning medication, or you have blood clotting problems you should talk to your doctor before you use the pump.

Although most men find the vacuum pump effective, some men find them awkward to use. It can take some practice to get the technique just right for you. There is no restriction on how often you can use the pump. It can also be used together with oral drugs or Caverject.

Putting some water soluble jelly around the base of the penis can help to stop air seeping into the device while creating the vacuum. Some men find that trimming the hair around the base of the penis makes it more comfortable to put the ring on and off and getting the seal tight.

**Penile implants (surgery)**

Penile implants can be an option for some men if you have had ED for at least a year and other therapies have failed or were unsuitable.

There are two basic types of implants: bendable implants and inflatable implants. Bendable implants are two rods put into the penis. By bending the penis upwards an erect penis is formed. With an inflatable implant a pair of inflatable cylinders is attached to a fluid reservoir and a pump hidden inside your body. By pressing on the pump, the fluid in the reservoir moves into the cylinders to form an erection or rigid penis. Most men and their partners are very satisfied with these devices.

Side effects include infection, pain and rarely the device stops working properly.

**The emotional impact of ED and prostate cancer**

There are many things which can affect how you feel about sex after prostate cancer. The worry of being told you have cancer can have an effect on your libido and how you feel about yourself.

Weight gain, tiredness and anxiety can all affect your interest in sex. For some men worrying about whether or not you can get an erection can make you avoid intercourse, or make you feel less interested in sex.

Prostate cancer and ED can affect your confidence, self esteem and some men feel less masculine as it changes how they see themselves.
as a man. If you feel like this you may find that talking to your partner helps. Finding out how your partner feels can help to make sure neither of you feels rejected by the change in your physical relationship. It is important to remember that there are other ways of maintaining a close physical relationship, such as with cuddling and kissing, and this can help to keep the intimacy in your relationship. Sexual relationships are built on many things, such as love, trust, common experiences and open communication.

Talking about sex with your partner can be difficult, you may find it helps to see a psychosexual counsellor. A list of psychosexual counsellors can be provided by the National Cancer Helpline or your doctor may have a list of services available.

Information for partners

Talking to your partner about any changes may help them and you. Being patient with him and making sure he knows that you understand the cause of the altered physical relationship can help to take the strain off the relationship.

Some men distance themselves from sex because they find it easier to cope that way – this does not mean they no longer love or care just that it is their way of coping with the changes.

Talking about sex can be difficult even for couples who have known each other for a long time. You may wish to have counselling to help with sexual or relationship difficulties following prostate cancer.

Will these treatments affect my prostate cancer treatment?

It is safe to take the above treatments while having radiotherapy, hormone treatment and after surgery for prostate cancer. It will not affect the outcome of your treatment.

Some couples worry that sex after prostate cancer can cause the cancer to be passed from person to person. It is not possible to pass cancer from person to person.

When will I start treatment for ED?

You can try treatments at any time. If you have been without erections for a long time it may be more difficult to get erections again but you can start treatment at any time if you wish.

Some men start tablets for ED during the early weeks after surgery, before they are thinking of having sex again. This is thought to help increase the chance your erections will return naturally. It might also be helpful in reducing the risk that your penis will shorten after surgery. It is thought that increasing the blood flow to the penis is beneficial. It is not yet clear how often you need to take medication to get this benefit, your urologist will guide you in this.

Gentle self stimulation or the use of the vacuum pump may have the same effect.

Do check with your surgeon when they are happy for you to start using the vacuum pump before you do so if you plan to do this in the early stages after surgery.

If you have had radiotherapy or brachytherapy you can continue or resume sexual activity whenever you are ready. ED caused by radiotherapy and brachytherapy often starts some time after treatment. If you start to notice a change in your erections you can talk to your doctor about treatment for this at any time.

Some doctors are advising the use of early treatment for men after radiotherapy and brachytherapy but as yet it is not clear if this will prevent damage. Treatments for ED can work well after radiation therapy, your radiation doctor or urologist will advise you on such treatment. The vacuum pump may also help to prevent change to blood vessels following radiotherapy.

After brachytherapy you should follow the advice from your treatment centre about the use of condoms in case of seed displacement.
How do I get treatment and support?

If you find the effects on your sex life are disturbing, you could discuss this with your GP or Urologist.

All doctors who treat men with prostate cancer know that ED is a common side effect of treatment. Doctors will not feel uncomfortable with you talking about ED after your prostate cancer treatment.

Even if you feel embarrassed, doctors are used to talking about these issues and will be able to give you advice. There are practical ways to help you overcome ED and your doctor can give you further information about these. Most hospitals also have specialist cancer nurses who can discuss these issues with you.

Lifestyle changes

Men suffering with ED should also think about lifestyle changes, carrying excess weight, smoking and alcohol all affect erectile function. Keeping physically active may be helpful.

Suppliers of vacuum pump

You can ask your pharmacist to order a vacuum pump for you or you can buy one over the telephone or via the website.

JS Dobbs and Co Ltd.
Health Care Suppliers,
Baldoyle Industrial Estate,
Dublin 13
01 839 1071
www.jsdobbs.ie
email:sales@jsdobbs.ie

For more information on erectile dysfunction or prostate cancer, call the National Cancer Helpline

Useful organisations

The prostate cancer charity
www.prostate-cancer.org.uk

Sexual Advice Association (UK)
Tel: 0044 020 7486 7262
Website: www.sda.uk.net

ACCORD (Catholic Marriage Care Service)
Tel: 01 505 3112
Website: www.accord.ie

Relationships Ireland
LoCall: 1890 380 380
Website: www.relationshipsireland.com

Further information

For more information on clinical trials, call the National Cancer Helpline, freephone:

1800 200 700
(Monday-Thursday, 9am-7pm; Friday, 9am-5pm)
or email helpline@irishcancer.ie for confidential advice from our cancer nurse specialists.

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