Spinal Cord Injury and Male Sexual Function

Many men with spinal cord injury have changes in their sexual function and ability to father children. Men often also experience emotional issues that affect their overall sexuality. It is very important for men and their partners to understand and address these issues as part of their overall adjustment to life after injury.

Normal Sexual Function
Men have 2 types of erections. The brain is the source of psychogenic erections. This type of erection begins with sexual thoughts or seeing or hearing something stimulating or arousing. Signals start at the brain and travel down to the T10-L2 levels. The signals reach the penis and an erection occurs. A reflex erection occurs when there is direction physical contact with the penis or other erotic areas such as the ears, nipples or neck. A reflex erection is involuntary and can occur without stimulating thoughts. The nerves that control a reflex erection are located in sacral nerves (S2-S4) of the spinal cord.

Sexual Function after Injury
The ability to have a psychogenic erection after a spinal cord injury depends on the level of the injury and if it is complete or incomplete. Usually men with low level incomplete injuries are more likely to have psychogenic erections than men with higher level incomplete injuries. Men with complete injuries are less likely to experience psychogenic erections. Most men with spinal cord injuries are able to have a reflex erection with physical stimulation if the S2-S4 nerve pathways are not damaged. Each spinal cord injury is different and therefore its impact on sexual function can also differ.

Many men with spinal cord injury are capable of having and maintaining an erection that is sufficient for sexual activity. However, erectile dysfunction (ED) also occurs in men with spinal cord injury. ED is the inability to achieve or maintain an erection sufficient for his own or his partner's needs. ED can occur right after an injury or any time after. Men with a spinal cord injury who are experiencing ED should have a physical examination by their health care provider.

Medications for ED
The first treatment option for ED is usually an oral medication such as Viagra, Cialis or Levitra which work by increasing blood flow to the penis. Men won't get an erection just by taking the pill. Sexual stimulation is required for an erection and once you have completed your sexual activity, the blood flow to the penis should decrease and the erection should go away. Always talk to your health care provider before taking any medication. ED medications can be harmful if taken with certain medical conditions. The level of the injury and the side effects should be considered and some men prefer or respond better to one medication over another.
Alternative Treatments for ED
There are other treatment options for men who don't respond to or can't take oral medications.

**Penile injection therapy** works by injecting a single dose of a combination of drugs into the side of the penis. The result is a hard erection that lasts 1-2 hours. These drugs must be used exactly as prescribed and this method is not recommended for use more than once a week. If you have limited hand function, you would need assistance getting this injection.

**Medicated Urethral System Erection (MUSE)** is when a pellet is placed in the urethra and is absorbed into the surrounding tissue. This causes the blood vessels to relax and allows blood to fill the penis.

**Vacuum Pump** is a mechanical option for producing an erection that for most men is suitable for intercourse. The penis is placed in a vacuum cylinder and air is pumped out of the cylinder causing blood to be drawn into the erectile tissues. A constriction ring is placed around the base of the penis and this maintains the erection and prevents urinary leakage that some men with spinal cord injury experience. The ring must be removed after intercourse to avoid prolonged pressure and pressure sores. For those with limited hand function, there is a battery operated pump.

Surgical implantation is not recommended due to skin breakdown that can occur.

ED Treatment Risk Factors

**Priapism** is a prolonged erection that occurs if the blood does not drain from the penis. This can damage the penile tissue and can be very painful. If an erection lasts more than 4 hours, men need to seek immediate medical attention. If this is not treated as soon as possible, lasting damage can happen to the penis which includes the inability to have erections.

**Autonomic Dysreflexia:** The symptoms of AD are more common with an injury at T6 or above. The symptoms of AD are similar to the side effects of the ED medications so it is difficult to know what is causing the symptoms. Men who are at risk for AD should speak to their health care provider about what they should do if they develop symptoms. If you are having any symptoms that could be AD, you should stop all sexual activity and check your blood pressure.

**Fertility**
Many men with spinal cord injury are unable to father children through sexual intercourse. Ejaculation problems need to be addressed if a man wants to father a child. About 90% of men with spinal cord injury experience anejaculation, which is the inability of the man to ejaculate on his own during intercourse. Retrograde ejaculation is another problem and this is when semen is deposited into the bladder instead of exiting the body through the man's urethra. Men with spinal cord injury make normal numbers of sperm but the average number of moving sperm in semen in these men is 20% compared to 70% in men without an injury.

Fertility treatments may be needed in order to father a child. Some men may choose to have their semen frozen for use at a later date. Some men who have large numbers of dead sperm (necrospermia) may see improvements through repeated ejaculation.
Penile vibratory stimulation (PVS) can be used to achieve an erection but its main purpose is to produce ejaculate for those men who wish to father a child. There are a variety of vibrators available for this use. PVS is usually recommended as a first treatment option because it requires a small investment in time and money.

**Sexual Adjustment**
Sexual adjustment is necessary to your overall adjustment following spinal cord injury. Men may experience a loss of self satisfaction, confidence and self-worth. As time passes, many men with a spinal cord injury experience a greater appreciation for sexuality as a whole and hopefully regain feelings of self satisfaction, confidence and self worth. They often find pleasure in hand holding, hugging and kissing in addition to sexual intercourse. Many men also experience more emotional closeness with loved ones.

**Relationships**
After a spinal cord injury, men may be concerned about meeting a partner. Your partner needs to understand about your injury and your bowel, bladder and skin care. Couples need to talk and work together to come up with different ways to find romance and intimacy. If you and/or your partner are having relationship difficulties, working with a professional counselor may help. You may need to work through feelings of anxiety about your relationship or on healthy ways to communicate.

**Smart Sex**
The risk of getting a sexually transmitted disease (STD) is the same as it was before your injury. You still need to take precautions to protect yourself against STD such as gonorrhea, syphilis, herpes and HIV. If you are able to ejaculate, you should also protect against pregnancy if you are not planning on fathering a child. You need this protection even if you have poor semen motility or numbers. To protect against a STD or pregnancy, a male or female condom is recommended even if your partner is using another form of birth control. A condom is not 100% reliable but provides the most reliability when properly used.