

UNDERSTANDING SEXUAL **DYSFUNCTION IN SPINAL CORD INJURIES (SCI)**

A spinal cord injury (SCI) can have a profound impact on many aspects of an individual's life, including their sexual health. Due to the role the spinal cord plays in transmitting signals between the brain and the rest of the body, damage to this area can interfere with sexual function. Sexual dysfunction following SCI is common and can affect men and women differently, but with appropriate treatment and support, individuals can still experience fulfilling sexual relationships.

This guide explores how SCI affects sexual function, the types of sexual dysfunction that may occur, and the management strategies that can help improve sexual health and well-being for individuals with SCI and their partners.

IMPACT OF SPINAL CORD INJURY ON SEXUAL FUNCTION

Spinal cord injury can disrupt the transmission of nerve signals required for sexual arousal, sexual response, and ejaculation or orgasm. The extent of the impact on sexual function depends largely on the level and severity of the injury.

1. EFFECTS ON SEXUAL **FUNCTION IN MEN**

ERECTILE DYSFUNCTION (ED)

The most common sexual dysfunction in men with SCI is erectile dysfunction, which can be caused by disrupted nerve signals required for achieving or maintaining an erection.

COMPLETE SCI

• If the spinal cord injury is complete, it may result in a total loss of erectile function.

INCOMPLETE SCI

 In some cases, men with incomplete injuries may still retain some erectile function, but it may be impaired.

EJACULATION PROBLEMS

Many men with SCI experience difficulty with ejaculation, which may be either absent or delayed due to nerve damage.

RETROGRADE EJACULATION

In some cases, men may experience retrograde ejaculation, where semen is released into the bladder instead of out of the urethra.

LOSS OF SENSITIVITY

Sensory loss below the level of injury may result in reduced physical sensitivity, making it more difficult to experience sexual pleasure through physical stimulation.

2. EFFECTS ON SEXUAL **FUNCTION IN WOMEN**

DECREASED LUBRICATION

Women with SCI may experience vaginal dryness due to impaired sympathetic nerve function, which is necessary for producing natural lubrication.

REDUCED SENSITIVITY

· Sensory changes or loss of sensation in the genital area can make it more difficult for women to feel aroused or achieve orgasm.

DIFFICULTY WITH SEXUAL AROUSAL

 Women with SCI may have difficulty experiencing arousal due to disrupted communication between the brain and the genital area.

REPRODUCTIVE **CHALLENGES**

Depending on the injury's location, women with SCI may also face challenges with fertility or complications during pregnancy.

TYPES OF SEXUAL DYSFUNCTION AFTER SCI

Sexual dysfunction resulting from spinal cord injury can include:

ERECTILE DYSFUNCTION (ED) OR ERECTILE **IMPOTENCE**

 As mentioned above, the inability to achieve or maintain an erection.

ORGASMIC DYSFUNCTION

Difficulty achieving orgasm or a reduced sensation of orgasm.

DECREASED LIBIDO

Reduced sexual desire, often related to hormonal changes, medication side effects, or psychological factors.

RETROGRADE EJACULATION

The backward flow of semen into the bladder rather than being expelled through the urethra.

VAGINAL DRYNESS AND PAINFUL INTERCOURSE (DYSPAREUNIA)

For women, vaginal dryness can lead to discomfort or pain during intercourse.

MANAGEMENT OF SEXUAL DYSFUNCTION AFTER SCI

There are several management strategies available for sexual dysfunction following spinal cord injury, depending on the type and severity of the dysfunction, and the level of injury.

1. PSYCHOLOGICAL SUPPORT **AND COUNSELING:**

SEX THERAPY

Therapy with a trained sex therapist can help individuals and their partners explore emotional and psychological challenges related to sexual dysfunction. Addressing concerns such as body image, self-esteem, and relationship issues is important in improving sexual satisfaction.

COUPLES COUNSELING

SCI can place stress on relationships, and communication about sexual concerns is crucial. Counseling can help couples maintain intimacy and address any emotional or psychological barriers.

SUPPORT GROUPS

Connecting with others who have experienced similar challenges can offer emotional support and practical advice for managing SCIrelated sexual dysfunction.

2. MEDICATIONS AND **DEVICES:**

PHOSPHODIESTERASE-5 INHIBITORS (PDE5I)

 Medications such as sildenafil. (Viagra), tadalafil (Cialis), vardenafil (Levitra) and avanafil (Spedra) may help men with SCI achieve and maintain an erection by increasing blood flow to the penis. These medications can be effective for men with incomplete spinal cord injuries who still have some ability to achieve an erection.

INTRACAVERNOSAL INJECTIONS (ICI)

• For men who cannot achieve an erection with oral medications, ICI therapy involves injecting medication directly into the penis to induce an erection. Fast onset of action and strong effect are some of the main drawcards to ICI therapy.

VACUUM ERECTION DEVICES (VEDS)

A vacuum pump is a non-invasive option that can help men with SCI achieve an erection. It involves creating a vacuum around the penis, drawing blood into the area and causing an erection.

PENILE IMPLANTS

• For men with more severe erectile dysfunction, penile implants are a surgical option. These devices can restore erectile function in men who are unresponsive to other treatments.

LUBRICANTS AND MOISTURIZERS

Women with SCI may benefit from the use of water-based lubricants to alleviate vaginal dryness and improve comfort during intercourse. Regular use of moisturizers can also help maintain vaginal health.

CLITORAL AND VAGINAL STIMULATION DEVICES

For women with SCI, vibrators or other forms of stimulation may help increase sexual pleasure and arousal.

3. ASSISTED REPRODUCTIVE **TECHNOLOGIES:**

ELECTROEJACULATION

This technique can help men with SCI who are unable to ejaculate by using a small electrical current to stimulate the prostate, resulting in ejaculation. The collected sperm can then be used for in vitro fertilization (IVF).

SPERM RETRIEVAL METHOD

In cases where retrograde ejaculation or anejaculation occurs, sperm retrieval methods, such as percutaneous epididymal sperm aspiration (PESA) or testicular sperm extraction (TESE), can be used to obtain sperm for assisted reproductive techniques.

4. SURGICAL OPTIONS:

PENILE PROSTHESIS IMPLANTS

• In cases of severe erectile dysfunction, men may consider surgically implanted penile prostheses. These devices can help restore erectile function, although they are usually reserved for those who have not responded to other treatments.

SACRAL NERVE STIMULATION

• In some cases, sacral nerve stimulation can be considered as a treatment for sexual dysfunction, particularly for women with SCI. This method involves implanting a small device that stimulates the sacral nerves, which control sexual arousal and orgasm.

SUPPORTING PARTNERS

Sexual dysfunction due to SCI can affect both the individual and their partner, making it important to maintain open communication and mutual support:

BE PATIENT AND UNDERSTANDING

 SCI-related sexual dysfunction can take time to address, and both partners may need to adjust their expectations and communication around intimacy.

EXPLORE NEW WAYS OF INTIMACY

 Intimacy is not limited to sexual intercourse. Partners can explore different ways of connecting, such as cuddling, kissing, or mutual masturbation, which may help maintain closeness and affection.

WORK TOGETHER

Jointly exploring treatment options and discussing feelings openly can help both partners adjust to changes in their sexual relationship.

PREVALENCE OF SEXUAL DYSFUNCTION AFTER SCI

- Approximately 50-75% of men with spinal cord injuries report experiencing some form of sexual dysfunction, with erectile dysfunction being the most common.
- Sexual dysfunction is also prevalent in women with SCI. with around 50-60% of women experiencing changes in sexual function, including reduced libido, vaginal dryness, and difficulty achieving orgasm.
- The degree of dysfunction varies depending on the level of injury (e.g., cervical, thoracic, or lumbar) and the completeness of the injury (complete or incomplete SCI).

CONCLUSION

Sexual dysfunction is a common concern for individuals living with a spinal cord injury, but it is important to remember that many treatment options are available to help manage the condition and improve sexual health. Whether through medications, devices, psychological support, or assisted reproductive technologies, men and women with SCI can explore a variety of strategies to restore sexual function and enhance intimacy.

Working closely with healthcare providers, therapists, and support networks can help individuals and their partners navigate these challenges with confidence and support.

PEER-REVIEWED REFERENCES

- 1. Loeffler, M., et al. (2011). "Sexuality and Reproductive Health After Spinal Cord Injury." Journal of Sexual Medicine, 8(4), 1154-1161. https://doi.org/10.1111/j.1743-6109.2011.02271.x
- 2. Krause, J. S., et al. (2010). "Prevalence and Correlates of Sexual Dysfunction After Spinal Cord Injury." Archives of Physical Medicine and Rehabilitation, 91(5), 835-842. https://doi.org/10.1016/j.apmr.2010.01.020
- 3. Moran, P. A., & Lutz, W. (2015). "Sexual Dysfunction in Spinal Cord Injury: A Review of Current Treatment Options." Neurorehabilitation and Neural Repair, 29(8), 708-717. https://doi.org/10.1177/1545968315598811
- 4. Sipski, M. L., & Alexander, C. J. (2011). "Sexuality and Spinal Cord Injury: An Overview." Sexuality and Disability, 29(1), 1-9. https://doi.org/10.1007/s11195-011-9229-1