

Male Fertility following Spinal Cord Injury (SCI)

Fertility in men with SCI may be markedly reduced. This depends to some extent on:

- The level of the injury
- Whether the injury is complete or incomplete

Reduction in fertility occurs for 2 main reasons:

- Ejaculation may be difficult
- Semen/ sperm quality is reduced especially the motility (speed and quality of movement) of the sperm

There are many possible reasons for reduction in semen quality including:

- Recurrent UTIs, prostate or testicular infections
- Increased scrotal temperature
- Infrequent ejaculation leading to stasis
- Method of bladder management

Methods of Semen Retrieval

There are 2 main methods of obtaining semen if ejaculation by natural methods is difficult or impossible:

- **Vibroejaculation**
 - A vibrator is applied to the penis and may stimulate ejaculation
 - This usually only works in injuries above T9 – 10
 - It can be done at home
 - May cause autonomic dysreflexia in people prone to this (injuries above T6)
- **Surgical sperm retrieval**
 - If vibroejaculation is unsuccessful or contraindicated (a last resort)
 - Requires a fertility specialist
 - Yield a small number of sperm compared to vibroejaculation, so IVF procedures are often required

The semen that is obtained by these methods can then be used for assisted reproductive procedures.

Method of Improving Semen Quality

- **Reducing infections**
 - Be aware of correct methods of bladder management and catheter care etc.
 - Infections need to be treated quickly and properly
- **Reducing high testicular temperature**
 - Loose trousers and underpants
 - Type of cushion e.g. Roho better than foam
 - Sit with legs apart if possible
- **Improving low semen turnover**
 - Regular ejaculation by whichever method
- **Type of bladder management**
 - Self-catheterisation probably best
 - IDC or SPC better than reflex voiding (urodome)

Getting Your Partner Pregnant

If you are able to ejaculate you should have as much chance as anyone else of getting your partner pregnant during intercourse, unless the quality of the sperm is poor.

Artificial Insemination/ IVF

- **The use of artificial insemination and advanced in-vitro fertilisation (IVF) techniques:**
 - Has assisted with the problem of poor sperm quality for SCI men
 - Once the semen has been collected your partner can undergo these procedures to increase the chances of getting pregnant using your sperm
- **Artificial insemination**
 - Means that some other procedure is used to put the semen into your partner's vagina or uterus
 - This can be done at home or in the SIU using a plastic syringe
 - Often a fertility specialist is needed
 - The sperm can be washed and prepared to increase their mobility
- **IVF**
 - Procedures are much more complicated, time-consuming and expensive
 - A fertility specialist is needed
 - The egg and sperm are combined and fertilised artificially
 - Only one or a few sperm are needed in some of these techniques
- **Donor insemination**
 - Occasionally sperm of adequate quality cannot be obtained using any of these techniques. In this situation some couples consider and choose donor insemination.

The combination of vibroejaculation or surgical sperm retrieval plus IVF has greatly improved the fertility possibilities for couples wanting children where the man has SCI.

Please see your doctor for further information about these procedures.

For further information please contact:

The Spinal Injuries Unit – Outpatient Services

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