

J. FERTILITY AND PREGNANCY

Women

Menstruation returns to a normal pattern after the acute physical and psychological trauma has passed.

- This may take anywhere from 6 weeks to 2 years after your spinal cord injury but usually within 1 year.

The uterus (womb) works normally through conception and pregnancy and fertility for women with SCI is usually unaffected in the longer term.

Men

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 is difficult**
 - only ~ 10% of men with complete UMN lesions above T11
 - even less common in LMN lesions or below T11
- **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 lesions above T9-10
 - it can be done at home
 - may cause autonomic dysreflexia in people prone to this (lesions above T6)
- **Electroejaculation**
 - vibrators do not work in all cases
 - electroejaculation involves use of an electrical probe placed into the rectum
 - a small electrical current stimulates the nerves of the seminal vesicles (where the semen is stored)
 - causes emission rather than true ejaculation
 - this can only be used if you have no sensation in the rectum
 - it cannot be performed at home, only in the SIU
 - may also cause autonomic dysreflexia.

The semen that is obtained by these methods can then be used for artificial insemination of your partner.

Methods 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**
 - wear loose trousers and underpants
 - the type of cushion you use may be important
 - 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)
 - Avoid high bladder pressures whichever method is being used.

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 too 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 partners 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 motility
 - **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 vibro- or electroejaculation 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.

Pregnancy in SCI Women

Many spinal cord injured women, both those with quadriplegia and those with paraplegia, have had successful pregnancies and healthy children. If you are planning to get pregnant you should discuss this with your family doctor, obstetrician and SCI doctor.

Some medications that you are taking may need to be stopped prior to conceiving. As a general rule of thumb, drugs are normally avoided during pregnancy and especially during the first 12 weeks.

- The uterus (womb) works normally during conception, pregnancy and childbirth.
- There may be a higher incidence of complications both during pregnancy and labour.
- May be more difficult the higher the SCI.
- Many SCI women have relatively few problems and have non-complicated pregnancies and deliveries.

Issues for SCI Women during Pregnancy

- **Respiratory**
 - Some women with quadriplegia have some respiratory problems due to the womb pressing up underneath the diaphragm in the later stages of the pregnancy.
- **Bladder Management**
 - The normal bladder routine is likely to be upset during pregnancy
 - If you are self-catheterising or bladder trained, these may become difficult in the last 3 months of pregnancy. This is an individual thing and best discussed with the obstetrician if and when problems arise. An **indwelling catheter** may be required.
 - **Urinary tract infection** is one of the most common causes of premature labour.
 - You must be diligent in the cleaning of catheters and leg bags etc.
 - It is advisable to have an IVP 3 months after the birth of the child to check on the health of the kidneys.
- **Bowel Management**
 - Constipation is a common problem in pregnancy.
 - Increase the amount of fibre in your diet
 - Laxatives may need to be started or increased in number.
- **Posture**
 - Posture and balance in the wheelchair may become a problem as the pregnancy progresses
 - due to the weight of the baby pulling the body forward.
 - for women with lower level injuries the natural tendency is to arch the back to counterbalance the weight.
 - this may lead to back pain.
 - Your local physiotherapist can give you advice on:

- Appropriate exercises for the lower trunk during pregnancy and after the baby is born
 - Back care and the increased risk of damage to the back during pregnancy.
- **Transfers**
 - Wheelchair transfers may become increasingly difficult because of increasing weight and decreasing balance.
 - In some cases women may have to resort to other means of transferring, either by being lifted or using a hoist.
- **Pressure Relief**
 - Pressure sores are one of the most common problems associated with pregnancy and one, which is readily avoided.
 - Must do regular skin checks to detect any problems early
 - Pressure relief requirements are usually unchanged during the first half of the pregnancy.
 - During the second half of the pregnancy, due to increasing weight and decreasing balance, pressure may become a problem.
 - If using a foam cushion you may need to change to a better pressure relieving cushion, e.g. Roho or Jay.
 - If already using a Roho cushion, the pressure should be checked and adjusted as necessary.
 - For those women able to roll independently but with difficulty, it may be necessary to use a pressure relieving mattress e.g. ripple mattress temporarily.
 - Please contact your local physiotherapist or other health care professional for further information about any of these issues.
- **Sleeping Position**
 - In the early stages of pregnancy, prone lying is still possible.
 - As pregnancy progresses, lying flat on the back or stomach will become too difficult:
 - Especially for those with quadriplegia because breathing becomes difficult due to pressure on the diaphragm by the enlarged uterus.
 - Pressure on the large vessels in the abdomen will decrease circulatory return.
 - Nausea and dizziness are warning signs that you should not sleep or exercise while lying on your back.

- The use of a partial sitting position when in bed is often more comfortable:
 - It can help relieve heartburn (a common discomfort amongst all pregnant women, able-bodied or not).
 - This, however, may increase pressure and shearing on the skin on the buttocks.
 - Lying on your side in a partial sitting lying should be the position of choice and comfort.

- **Swelling of the Feet**
 - This is a common occurrence in pregnancy.
 - As the uterus enlarges, it hampers the return of fluid from the feet.
 - For those who already have swollen feet as a result of spinal injury, pregnancy may make it worse.
 - It may be necessary to increase the shoe size to prevent problems from tight shoes.
 - Wearing of support tights or compression stockings may also help

 - Wherever possible, the feet should be elevated to help the swelling go down.

- **Labour**
 - It is sometimes difficult to tell when labour starts.
 - Some obstetricians prefer admittance to hospital in the last weeks of pregnancy to await the onset of labour.
 - This is a very individual thing and best discussed with the doctor.

 - The choice between a vaginal delivery and an elective caesarean section is influenced by many factors including the mother's general health and position of the baby in the womb.
 - this should be discussed in detail with the doctor.

 - Many women these days have epidural anaesthetics in labour as a method of pain relief.
 - as a result, in essence are temporarily paralysed and have no feeling, yet the process of birth continues.

 - The potential for autonomic dysreflexia during labour for women with injuries above T5 exists, but in practice this a rare problem.

- **Specialised Treatment**
- **Advice with modifications and equipment to assist SCI women with issues regarding child rearing including:**
 - modifications to baby cribs or cots
 - designing appropriate change tables etc.,
 - instruction on techniques for simplified approaches to baby care tasks
 - conservation of mother's energy
- **can be obtained from the Spinal Injuries Unit Occupational Therapy Department or the Independent Living Centre of Queensland.**