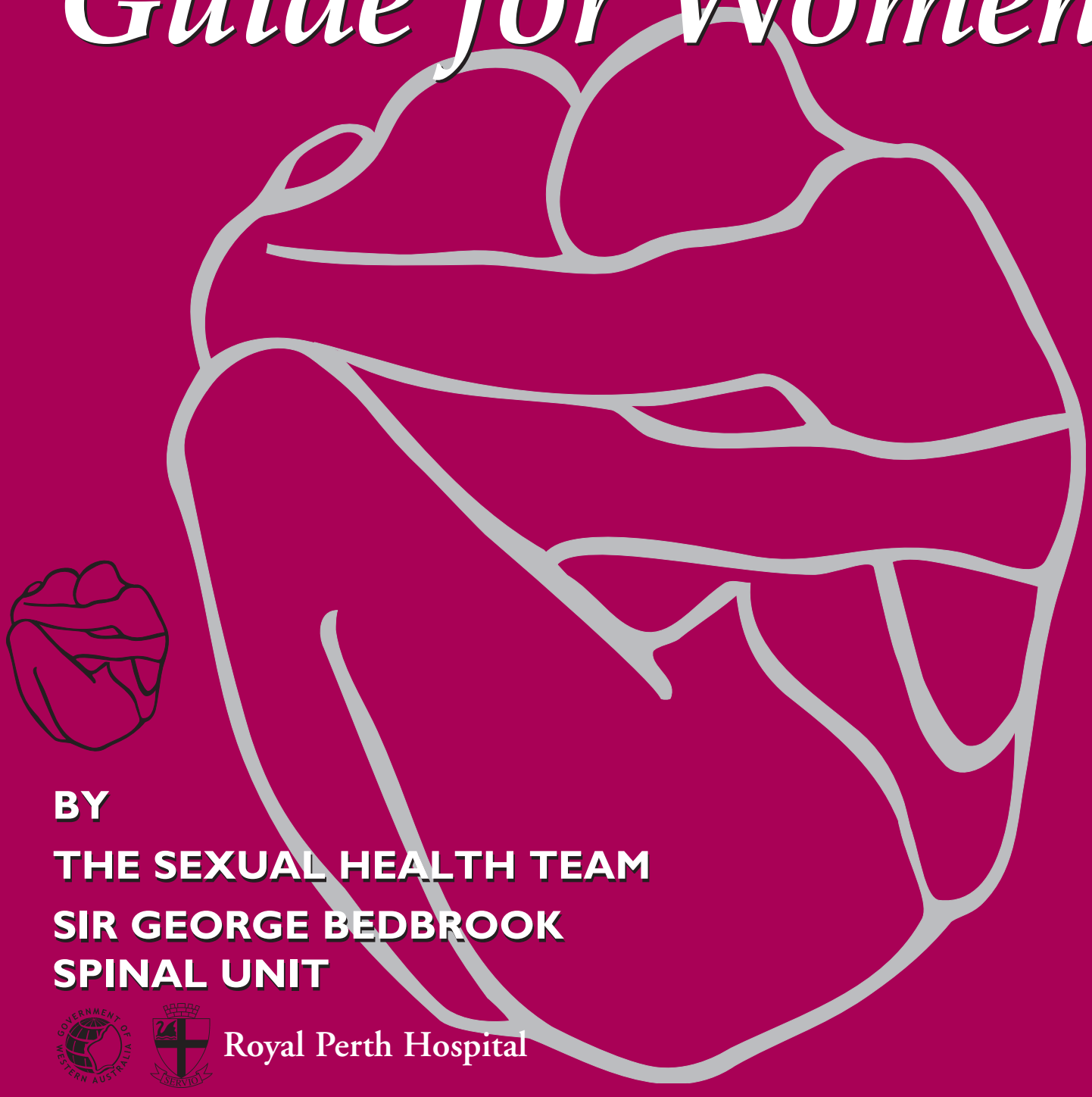
Sexuality and Spinal Cord Injury

Information Guide for Women



BY

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INTRODUCTION

This guide provides information on sexual issues for women who are spinal cord injured. We hope that it will assist you in developing a better understanding of your sexuality.

The guide begins with a section on the physical changes that occur after a spinal cord injury, and then discusses issues of fertility. Importantly, there is a section on relationships, which addresses the needs of couples, and how to deal with the emotional and physical aspects of sexuality following a spinal cord injury. There is also an explanation of the key aspects of safe sex, which is always important no matter what your age or disability.

It takes time to learn any new skill, and there will always be a period of adjustment for your body, as well as your attitudes and feelings. As you adjust, there will be a process of learning new techniques and developing new ways of becoming aroused and expressing yourself. As a consequence, you need time to learn and develop positive attitudes to new ways of expressing intimacy, sensuality and sexuality.

This guide has been compiled by members of the Sexual Health Team of the Sir George Bedbrook Spinal Unit, Royal Perth Hospital. Any enquiries to the Sexual Health Team can be made by ringing (08) 9382 7283.

PHYSICAL CHANGES AFTER SPINAL CORD INJURY

Sexual arousal involves a combination of various sensations, which stimulate the senses (sight, sound, touch and smell). Stimulants can include certain perfumes, music, seeing something erotic or being touched. Erogenous zones (sexually sensitive areas) are those spots which give sexual pleasure when touched and include not only the genital area but also the ears, neck, arms, face, chest and breasts. Exploring these areas with your partner can increase sexual pleasure and intimacy.

The body's response to sexual arousal includes an increase in breathing, pulse rate, blood pressure and muscle tension. The face may also become flushed. A woman experiences an enlarged clitoris, the vagina expands and produces fluid for lubrication, while for the man, his penis becomes erect.

After damage to the spinal cord some of these responses will remain the same, eg a rise in blood pressure and pulse rate, but others are altered. The ability to appreciate sensation in your genital area and other parts of the body will depend on the level and degree of spinal cord damage. The changes can result in decreased vaginal lubrication and genital sensation. Difficulties may also arise due to reduced physical mobility when taking an active role in lovemaking and intercourse.

Menstruation, fertility and the ability to become pregnant are usually unchanged.

The Female Reproductive System

The Female Reproductive System includes the clitoris, labia, vagina, uterus, Fallopian tubes, ovaries and breasts, which work together for sexual enjoyment and having children (see illustration).

Clitoris - this is situated above the urethra and is often the main erogenous zone for those with genital sensation.

Labia - these are two flaps of tissue which enclose the genitals:

labia majora - the outer 'lips' which protect the genitals from injury

labia minora - the inner 'lips' which enlarge in response to sexual stimulation.

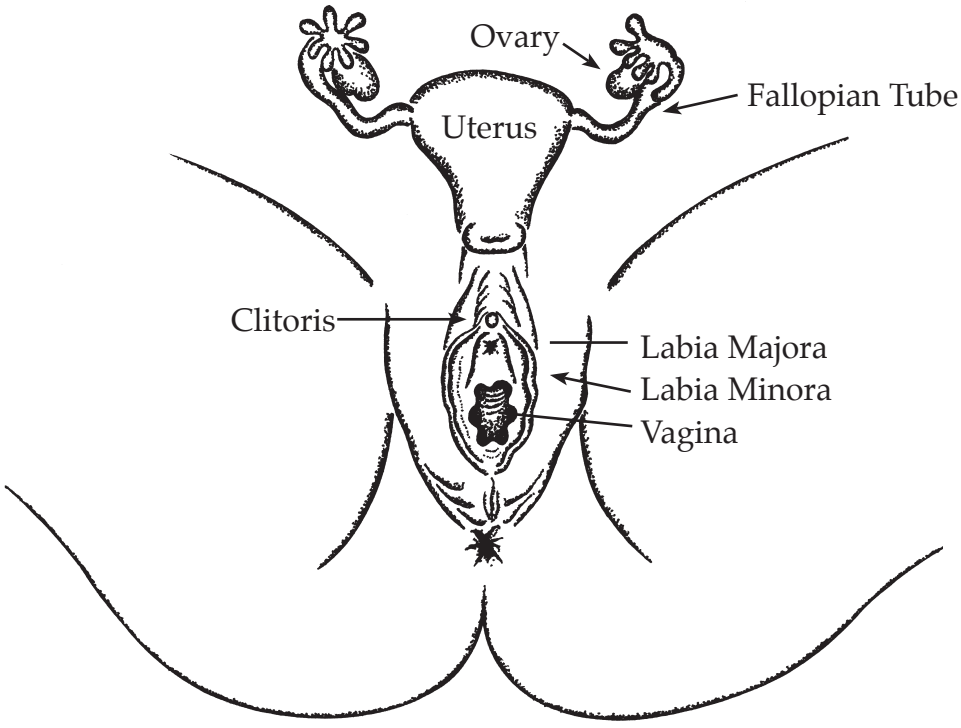
Vagina - this is situated between the urethral opening and the anus. It is a muscular tube that stretches when a penis or object is inserted and expands to become the birth canal when a baby is delivered via the vagina.

Uterus - the womb/uterus is in the lower abdomen and attached to the top of the vagina. It is a muscular organ that can stretch to accommodate a growing unborn baby.

Fallopian Tubes - these are attached to each side at the top of the uterus. They carry the egg from the ovaries to the uterus.

Ovaries - there is one each side of the uterus at the end of each Fallopian tube. It is an oval organ where the eggs develop. Each month one egg is passed down the Fallopian tube to the uterus to await fertilisation.

Breasts - their function is to provide nourishment for the newborn baby. They are also an erogenous area for sexual pleasure, should sensation be present.



FEMALE REPRODUCTIVE ORGANS

Female Sexual Response

For women the main aspects that change following spinal cord damage are **desire, arousal, and orgasm. It is unusual for fertility to be affected.**

Desire or as it is generally called 'libido' is the innate sense, awareness, or interest in anything sexual. It is reflected in the willingness to fantasise, to be 'turned on' by books or videos and/or the wish to make love to your partner.

Arousal can be purely in your head, what you are thinking, feeling, fantasising or it can be physical, ie touch. Often it is both.

Lubrication There are two ways that the vagina's lubrication is activated; one is through erotic imagery ie - thinking about sex - which is called 'psychogenic stimulation' and secondly via direct stimulation of the genital area - known as 'reflex stimulation'. Together they produce swelling of the labia and clitoris with lubrication of the vagina. Psychogenic stimulation can only occur if the damage to the spinal cord is incomplete and the nerve impulses from the brain can get past the damaged area of spinal cord. Direct stimulation, even if not felt, could produce lubrication by reflex activity through the lumbar and sacral nerves. In many cases the lubrication may be insufficient and you may need to use a water soluble lubricant such as 'KY jelly', 'Clinigel', 'Surgilub' or 'Sylk', when engaging in sexual intercourse or any form of vaginal penetration. There are many other preparations but **always use a WATER SOLUBLE** lubricant.

Orgasm - Unless you have genital sensation with incomplete spinal damage, orgasm is likely to be impaired. Some women describe an orgasmic sensation that is different and can be achieved by stimulating alternative erogenous areas where sensation is present. You may feel frustrated, as it may not be the same as before and may take longer to achieve. Relax and have fun exploring sensual possibilities with or without a partner. Try using fantasy, or aids like a vibrator and scented lotions. Remember that orgasm is an emotional experience as well as a physical one.

Special Concerns

You may find it helpful to discuss the following issues with your partner. Bladder and bowel accidents can sometimes happen during sexual activity, so some planning is required.

Bladder

Accidents will happen if your bladder is full, so cut back on your drinking 3-4 hours prior to sexual activity and empty your bladder just beforehand. Talk to your partner about the possibility of 'wetting' them or yourself and put an incontinence sheet or some old towels under the sheet.

Catheters

Indwelling urethral catheters should be taped to the lower abdomen or may be removed and reinserted after sexual activity (within the hour).

Bowel

If you have a reflex type bowel and are in a regular routine, there is less likelihood

of 'accidents' occurring. Those with a flaccid bowel may experience some leakage, so emptying the bowel by straining or a 'manual' an hour or so prior to sexual activity can assist in preventing leakage. If you are concerned, discuss this with your partner and use protection on the bed.

Hygiene

To reduce infection and protect skin areas, wash the genital area thoroughly before and after sexual activity, particularly when removing your catheter.

It is important to practice safe sex and be aware of Sexually Transmitted Infections (STI's).

Spasm

Involuntary muscle spasms can interfere or assist with movement and positions during sexual activity. If they interfere, which may be the case with hip adductor spasm (the muscles which bring the legs together), then you may need to use methods to reduce them. These may include a warm shower, medications (ask your doctor) or passive movements (physiotherapist can advise). If spasms assist then use them to your advantage if possible.

Positions

Use your imagination to explore what is practical for you within the limits of comfort. Always be aware to prevent skin damage due to pressure or friction. Pillows and other aids for positioning may be used as well.

Autonomic Dysreflexia

For those with spinal damage at T6 and above, sexual activity, menstruation and labor, may trigger an episode of autonomic dysreflexia. If you start experiencing the symptoms (see your dysreflexia card), stop activity, sit upright and treat as advised. You may need to check your bladder is empty. If symptoms persist, seek medical attention.

Medications

Some medications can affect sexual desire. If you are concerned please see your spinal cord injury consultant.

Difficulties in Having Sexual Intercourse

Due to your physical limitations, your body will often not respond to commands, and you may find it much more difficult to take the initiative in sexual activities. Some positions often become difficult. The lack of sensation in the genital region may concern you but you can focus on your other erogenous zones.

It is important to communicate this as well as other needs, wishes, wants and desires to your partner. There are books available which discuss sexual technique and positions (see Educational Resources page 20). Your sexual experiences can be made varied and interesting with effort, play and imagination. Experimenting assists in relearning about your body and helps you and your partner find out what you like and dislike.

FERTILITY and PREGNANCY

After the initial injury, fertility in women is usually unchanged by spinal cord damage. In the event of severe pelvic injury the Fallopian tubes may become blocked, reducing fertility.

Any problems are usually related to pregnancy, rather than conception.

Pregnant women with spinal cord injury may have difficulty with movement and transferring especially as the pregnancy progresses. In the later weeks of pregnancy, breathing may also be affected. As with all pregnancies there may be changes in bladder and bowel function. Some self care functions may require assistance in the later stage of pregnancy. Therefore delivery may be recommended before full term.

Labour contractions can often be painless. If not, a spinal or epidural anaesthetic can be used. Women with spinal cord injury may not have sufficient power in their abdominal muscles to push the baby out and so delivery is frequently assisted, eg Caesarean section (see appendix I, page 18).

There is no reason why women with paraplegia cannot breast feed their babies and carry out all the care that the baby will need. Mothers with tetraplegia and in particular those with high cervical lesions may need help with these tasks.

For further information on fertility and pregnancy see Appendix 1, page 18.

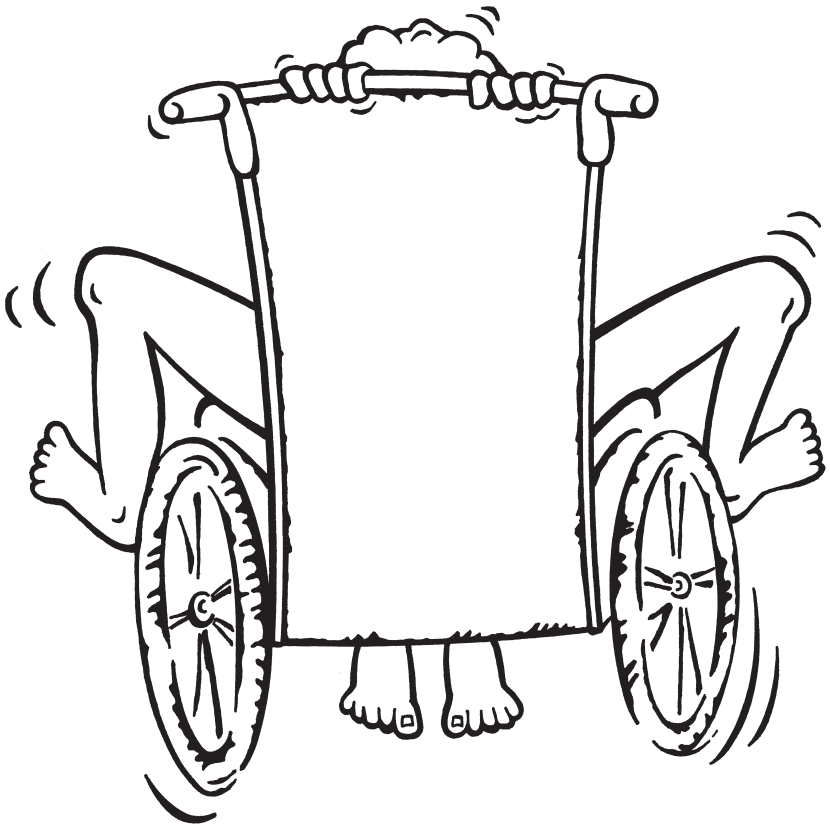
RELATIONSHIPS, SEXUALITY & SPINAL CORD INJURY

Whether you are starting a new relationship after your injury, continuing an ongoing one or on your own, the following ideas may be helpful.

Your spinal cord injury may challenge, in complex ways, your self-identity, your sexuality and your relationships. Sexuality is a very important part of each person's being. It is part of how we express ourselves and how we relate and communicate.

Communication is important in all aspects of relationships, including sexual relationships. The expression of tenderness, love, concern, warmth, honesty and openness towards another person depends on how you think and value yourself. How you see yourself and the changes that have occurred to your body can affect how you communicate and express your sexuality.

As part of your recovery after a spinal cord injury, you may discover your sexuality is limited by your own personal ideas and beliefs. For example, some people believe that you must have penile/vaginal intercourse to truly have sex. You may enjoy finding out that other forms of expression using different parts of your body, such as your mouth or different positions may provide more expression for your sexual creativity. This may involve engaging in other activities, such as oral sex, or using sexual devices that you may not have tried before. Communication with your partner can assist you to overcome some of these issues.



Some women may feel that their femininity and role as a mother is being questioned by themselves and others. You may find that you feel less able to be sexually fulfilled as a woman and may even question your own ability to be a mother.

These changes and the losses that are associated with disability may require an adjustment, for you and your partner. You can take the opportunity, to see it as a challenge to grow and re-evaluate your life in creative and positive ways.

What Can You Do?

- Challenge the myths and beliefs you have about yourself now that you are in a wheelchair, eg 'No-one will find me attractive in a wheelchair'.
- Be open. Be prepared to experiment sexually. Read more about sexuality and spinal cord injury and find out new ideas on sexual positions.
- Work to maintain your self-esteem, sexual identity and self-respect. Talk to a counsellor and/or other people with spinal cord injuries, about how to remain sexually confident.
- Remember to plan your intimate, sensual and sexual experiences and talk with your partner about using new and creative ideas. It's difficult, but try and acknowledge your lack of genital sensation, and realise that this isn't the end but only the continuation of exploring your sexuality and pleasure in new and creative ways.

Take Care and ENJOY!

SAFE SEX AFTER SPINAL CORD INJURY

Keeping sexually healthy is very important and the following are some ways to achieve this:

Communication

Talk to your partner before sex about your health concerns and sexual health history. Also ask your partner to do likewise. 'Concern' does not mean that you distrust your partner but that you are responsible for your own health e.g. if you have an Sexually Transmitted Infection (STI), tell your partner. Partners need to care about each other and to be interested in one another's pleasure, comfort and health.

Stay in Charge

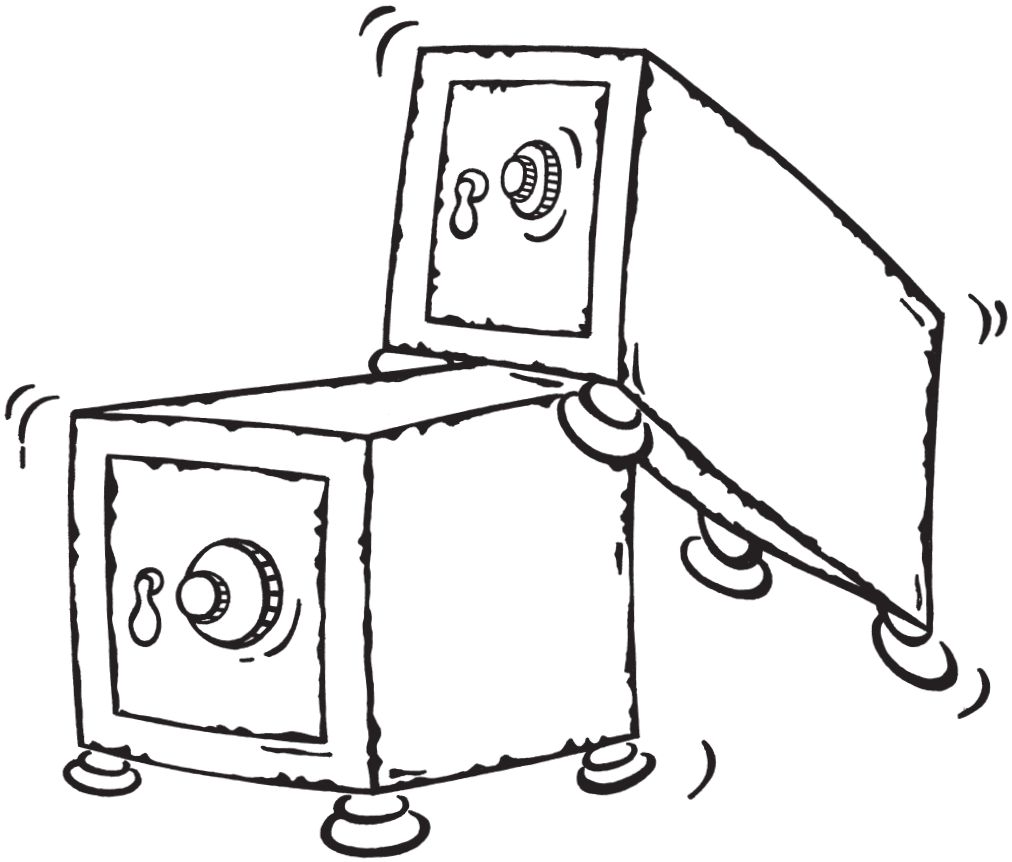
Be aware that alcohol and some other drugs tend to weaken good judgement and may jeopardise self-control.

Condoms and Sexual Aids

Condoms correctly applied still offer the best protection against STI's. However, you will need to avoid any sexual contact during an outbreak of STI's.

Sexual aids such as vibrators, should be washed and cleaned after use. It is unwise to share them with others.

Women with spinal cord injury who are sexually active remain as vulnerable as the general community to STI's. It is important that you recognise and prevent the spread of diseases.



The most common are listed below.

Viral Sexually Transmitted Infections

Genital Herpes

These are small blisters and sores on the genital area. Avoid all contact, manual touching or intercourse while the sores are present. Condoms are not 100% safe against catching genital herpes, as they only protect the area of the skin that they cover. Also if you have a cold sore, avoid giving oral sex.

Genital Warts

Human papillovavirus (or genital warts) are said to infect up to 40% of the population and some are considered to be harmful, apart from the fact that they can spread to your partner. They may go away by themselves. Some types of warts, however, have a strong association with cancer and should be treated. Also, they may grow and block the urethra in males, or grow on the cervix in females. After treatment, a condom will protect against further infection.

Hepatitis

There are several types of hepatitis: A, B, C, D, and E. Hepatitis B is the most common, spread mostly by semen, vaginal secretions and blood products.

Hepatitis results in inflammation of the liver, and if not treated properly can cause permanent liver damage or even death. A blood test will confirm the diagnosis.

Human Immunodeficiency Virus (HIV)

This virus is transmitted most commonly by sexual intercourse (more often by anal intercourse) or by sharing needles in intravenous drug use. HIV may go on to develop as AIDS. The virus stays in the body forever, and there is no known cure. For more comprehensive information, contact the Western Australian AIDS Council's AIDS & HIV Information line on 13 1025.

Non-Viral Sexually Transmitted Infections (STI's)

Discomfort and discharge may be the earliest signs of the following STI's:

Candidiasis (Thrush)

This is a normal organism living on the skin and inside the body, which causes problems only when there is an over-growth of this yeast fungus.

It can be transmitted through intercourse. It is treated by anti fungal preparations.

Chlamydia

Spread only by intercourse. If not treated by antibiotics, this common infection can cause sterility in women.

Non-Specific Urethritis (NSU)

This is simply an inflammation of the urethra, which is treated with antibiotics when the organism has been identified.

Discomfort or skin sores may be the earliest signs of the following STI's:

Syphilis

Syphilis is transmitted through sexual intercourse. If the sores of the person with syphilis are rubbed against the other person, the infection can enter the body through any tiny skin break. Treatment with antibiotics is essential.

Gonorrhoea

Some people may not know that they have the infection, so any discharge or pain when urinating should be checked by a doctor and treated before infection of the Fallopian tubes causes sterility.

There are many other STI's, all of which require investigation and medical treatment.

For more information, please refer to ' Education Resources' (page 16).

WESTERN AUSTRALIAN COMMUNITY RESOURCES

SEXUAL HEALTH CLINICS

General Information **1300 135 030**
Royal Perth Hospital **9224 2178**
Fremantle Hospital **9431 2149**

FAMILY PLANNING WA

70 Roe Street Perth..... **9227 6177**
www.fpwa-health.org.au

Quarry Street (Rear) Fremantle (for under 25s) 9430 4544

Sexual Health Helpline

- Metro **9227 6178**
- Country (Freecall)..... **1800 198 205**

People 1st Programme (PIP) **9227 6414**
(For people of all ages with an intellectual disability)

Roe St Centre for Human Relationships **9228 3693**
(Counselling for individual, couples & families)

WOMENS HEALTH INFORMATION..... **9340 1100**
(King Edward Memorial Hospital) **1800 651 1000**

BREAST SCREENING WA..... **92376900**
..... **9420 7226**

SEXUALITY, EDUCATION, COUNSELLING & CONSULTANCY AGENCY **9420 7226**
This agency has a large range of books, videos and courses
www.cygnus.uwa.edu.au/~secca
email:secca@cygnus.uwa.edu.au

GAY & LESBIAN COMMUNITY SERVICES OF WA (INC)..... **9420 7201**
www.glcs.org.au
email:admin@glcs.org.au

AIDS/HIV - Information & Advice
(Health Department)
Communicable Disease Control Branch..... **9388 4999**
www.health.wa.gov.au (see Public Health)

WA AIDS COUNCIL..... **9429 9900**
www.waaids.asn.au
email:waac@waaids.asn.au

ADULT BOOKSHOPS/SHOPS

'Barbarellas' Bookshops
Head Office **9248 9669**
www.adultshop.com.au
email:inquiries@barbarellas.com
'Vibrations' **9242 4501**
'Club X' **9325 3815**
www.clubx.com.au
PHOENIX **9328 1387**
(Sex Industry Workers Group)

EDUCATIONAL RESOURCES

Reading

Comfort, A. (1991). *The Joy of Sex: A Gourmet Guide To Lovemaking.* London: Mitchell Beazley.

Crispin, J. (1991). *Sexuality and The Spinal Cord Injured Woman*: Post Basic orthopaedic Spinal nursing project. Royal Perth Hospital, Shenton Park Campus.

Di Lima, S., Hilderbrandt, U. & Schust, C. (1996). *Spinal Cord Injury - Patient Education Manual.* Aspen Publishers.

Gatehouse, M., (1995). *Moving Forward - The Guide To Living with Spinal Cord Injury.* United Kingdom: Spinal Injuries Association.

Knoll, K. & Klein, K. (1995). *Enabling Romance.* Woodbine House.

Haseltine, F.P., Cole, S.S. & Gray, D.B. (eds). (1993). *Reproductive Issues for Persons With Physical Disabilities.* Baltimore: Paul H. Brookes.

Heiman, J.R. & Lopiccolo, J. (1991). *Becoming Orgasmic: A Sexual and Personal Growth Programme for Women.* Sydney: A Paramount Communications Company.

Krotoski, D.M., Nosek, M.A. & Turk, M.A. (eds). (1996). *Women with Physical Disabilities: Achieving and Maintaining Health and Well-being.* Baltimore: Paul H. Brookes.

Lee, V. (1996). *Soulful Sex: Opening Your Heart, Body and Spirit To Lifelong Passion.* California: Conari Press.

Lemon, M.A. (1993). Sexual Counselling and Spinal Cord Injury. *Sexuality & Disability,* 11(3), pp 73-97.

Leonardi, T. (1995). *Ultimate Female Orgasms: Advanced Sexual Techniques for the Sophisticated Lover.* London: Simon and Schuster.

Masters, W.H., Johnson, V.E. & Kolodny, R.C. (1991). *Masters and Johnson On Sex and Human Lovemaking.* London: Papermac.

McCloskey, J. (1992). *Your Sexual Health.* Western Australia: Elephas Books.

Mooney, T.O., Cole, T.M. & Chilgren, R.A. (1975). *Sexual Options for Paraplegics and Quadriplegics.* Boston: Little, Brown and Company.

Schachtel, D., King, G., Walker, V. & Vara, V. (1989). *Key to Independence Manual - Shepherd Spinal Centre.* USA: Hot Off The Press.

Schnarch, D.M. (1997). *Passionate Marriage.* Melbourne: Scribe Publications.

Tepper, M.S. (Ed). (1997). Special issue: Education and Training in Sexuality and Disability. *Sexuality and Disability*, 15 (3).

Wilson, G. & McLaughlin, C. (1995). *Better Sex: The Erotic Education You Never Had.* London: Bloomsbury.

On Line Resources:

www.sexualhealth.com/ A sexual health information site from the USA for people with disability.

www.spinalcord.uab.edu/ Established by the Spinal Cord Injury Information Network, USA.

www.adultshop.com.au Online adult book/video shop.

APPENDIX I

Pregnancy in women with spinal cord injury & spina bifida

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There are a number of different problems that may occur in pregnancy in women with spinal cord injury. This section is designed not only to help and reassure women with spinal cord injury and spina bifida who are contemplating child bearing but also to inform them of the difficulties that pregnancy, child birth and, importantly, the subsequent child rearing may bring to bear on their every day lives.

FERTILITY

In most women with spinal cord injury, fertility frequently remains unaffected. Close to the time of the injury, loss of menstruation may occur temporarily but this usually resolves spontaneously and in many women menstruation remains normal. If however, the woman suffers a major head injury in association with her spinal cord injury, then loss of periods is common and this may last for several months. Again this usually gets better without the need for medical treatment.

A major problem that will affect fertility in spinal injury is the presence of an associated pelvic fracture or major intra-abdominal injury sustained at the time of the original accident. These complications are usually associated with considerable amounts of bleeding and if this occurs inside the abdominal cavity, it can result in the formation of adhesions and even cause blockage of the Fallopian tubes. In such patients, problems with conception are frequent.

The bladder can also give rise to problems with fertility. Many patients with spinal injury but in particular those with a high lesion, who have a quadriplegia, often suffer from an unstable bladder and emptying difficulties. As a consequence such patients can be much troubled with urinary tract infections that can cause damage to the kidneys. For this reason it is important that these problems are minimised and surgery on the bladder may be indicated. The bladder is situated in front of the uterus and thus surgical procedures on the bladder may also produce adhesions in the pelvis, which can cause problems with fertility.

In women with spina bifida, their spinal problem has been present for their whole life. Multiple bladder operations have very often been carried out over the years and infertility is thus quite a frequent problem. There is a risk of tubal damage consequent upon past surgery in women with this problem but in many, conception can occur without medical intervention.

Tubal infertility can be managed in two main ways. Firstly it is sometimes, but not always, possible to divide the adhesions and free up the Fallopian tubes. It may also be possible to unblock them. Such procedures may restore natural fertility. However, some times the damage is too great to be overcome by surgery and for such women the only treatment for their infertility is the technique known as In Vitro Fertilisation (IVF).

EARLY PREGNANCY

Early pregnancy presents few problems to women with spinal injury apart from the frequency of urinary tract infection. Vomiting in early pregnancy will be as frequent as that in women without spinal injury. Antibiotic therapy to control bladder and kidney infections is important as these infections can result in impaired growth of the baby particularly in late pregnancy and may also result in premature labour and birth.

Constipation can be a major problem in pregnancy even in women without a spinal problem but this is often more severe among women with spinal injury especially when their lesion is high in the spinal cord. Some 60% of pregnant women become anaemic and the iron supplements that they take may make the constipation worse still. This problem may have to be overcome with enemas and a variety of bowel stimulants.

Pressure sores may also become a problem to a pregnant woman with a spinal cord injury. As the baby becomes heavier, it becomes more difficult for her to move around thus exacerbating or even inducing the formation of pressure sores.

Throughout pregnancy, care must be taken to avoid inducing the condition known as autonomic dysreflexia. In this condition the pulse rate and the blood pressure can rise very steeply and this can be dangerous to the pregnancy. This is easily induced by urinary infections and by an overfull bladder especially among women with spinal cord lesions above T6.

One of the more difficult decisions that have to be made by pregnant women with spina bifida is whether or not to undergo an ultrasound examination. Spina bifida as well as all the group of conditions known as neural tube defects that include conditions such as anencephaly in the foetus can now be diagnosed by ultrasound. As spina bifida can have a genetic basis, such women have an increased chance of giving birth to a child with a neural tube defect. The finding of spina bifida in the foetus of a woman with a similar problem creates a very big problem for her as it raises the question of pregnancy termination. This whole matter must be discussed carefully with the obstetrician and where necessary careful counselling is required. Some pregnant women with spina bifida decline ultrasound as they find it difficult to face the possibility of finding a foetus with the same lesion as its mother. It must be remembered however that the incidence of recurrent spina bifida is small and the advantage of us being able to monitor the baby's growth by ultrasound is very great. It is known that taking Folic acid before and at conception considerably reduces the incidence of spina bifida in the child. Thus for women who themselves have spina bifida, we ask them to take a much bigger dose of Folic acid both before and during early pregnancy than is the case in the unaffected pregnant woman. A woman with spina bifida who is contemplating conception is asked to take Folic acid in a dose of 5 milligrams per day rather than the normal dose of 0.5 milligrams.

LATE PREGNANCY

As the baby grows, this of course poses greater problems for the mother with spinal injury. She will experience the much greater effort needed to move about and to get

in and out of her wheelchair. Women with spina bifida often have an abdominal cavity that is reduced in length and thus if the baby has grown to a good size, such women may experience difficulty in breathing. It is not uncommon for the obstetrician to have to deliver the baby early in order to overcome this problem.

In late pregnancy, the baby's head descends into the pelvis and this may make passing urine very difficult. Some women with spinal injury may have to tolerate a bladder catheter or will have to self-catheterise in the latter weeks of their pregnancy.

Disorders of the kidneys predispose women to the disease known as pre-eclampsia and even the more serious condition known as eclampsia. This disorder consists of high blood pressure and the presence of protein in the urine. Pre-eclampsia is particularly common among women with urinary problems and kidney infections. This complication of pregnancy is thus common among pregnant women with spinal injury. In women with pre-eclampsia, foetal growth may slow. Haemorrhage behind the placenta can also occur. In this situation, it may be necessary to deliver the baby before its due date. Because pre-eclampsia is a common complication in pregnancy amongst women with spinal injury, these women should be under the care of a specialist obstetrician and should be delivered in a hospital with good facilities for the care of a baby that may be born prematurely.

LABOUR

In some women with spinal injury, the labour can be relatively painless but this of course depends upon the level of their lesion. The level at which contractions are felt seems to vary greatly among different women and it is difficult to be sure how much a woman will feel during her labour. Labour may also be an initiating factor in the induction of autonomic dysreflexia and for this reason, even if the contractions are relatively painless, an epidural anaesthetic is very useful as it will lower the blood pressure and block the reflexes that induce this condition. If the labour is indeed painful, a well-sited epidural anaesthetic should render the contractions painless.

The length of labour in a woman with spinal injury is usually no longer than that in an ambulant patient. In fact contraction of the abdominal muscles impedes the action of the uterus. Thus in women with spinal injury, the abdominal wall tends to lax and this will assist the action of the uterus in labour.

DELIVERY

Women with spinal injury may have little or no function of the abdominal wall. Thus when full dilation of the cervix is achieved and the baby is ready to deliver, they will not have the muscle power to be able to push. In these circumstances the obstetrician will thus have to assist delivery of the baby with forceps or with the vacuum extractor. However, if there is an epidural in position, this will cause no pain and autonomic hyperreflexia will not occur. The mother can be fully awake during all of this procedure and thus can participate fully in the birth of her baby.

If however, the baby is very large or the mother has had a pelvic fracture in the past, the baby may be too big to pass through the pelvis. The pelvis may also be distorted

by a past injury and have too small a diameter to allow the safe passage of the baby through it. Some pelvic fractures however actually enlarge the pelvic diameters but unfortunately this type of fracture occurs very uncommonly. Where the baby is too big or the pelvis too small, then delivery by Caesarean section would be needed. One of course must not forget that many women require Caesarean sections for a lot of other reasons and thus such an operation may be needed for indications other than those due to spinal or pelvic injuries.

Today, Caesarean sections may be performed under epidural anaesthetic and even for this procedure the mother can be awake.

In women with spina bifida, a reduction in pelvic size is common and thus in women with this problem, the incidence of delivery by Caesarean section is high.

AFTER DELIVERY

It is usually always possible for a woman with spinal injury to breast feed her baby but in a quadriplegic woman with a high injury, particularly when it is complete, may need some help in holding the baby to the breast. The mother's lap can be very useful as a means of gaining closeness to the baby. Depending upon the level of disability, the mother may also need help at nappy changing, bathing the baby and also in the baby's general care. However all of this will be fairly easy for the paraplegic woman with full use of her arms.

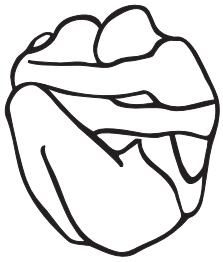
The care of the baby will of course become more difficult, especially for the quadriplegic mother as the baby increases in weight and this must be remembered by all mothers with spinal injury.

The next problem that will arise for the mother with spinal injury will be when the child is able to walk and to run around. This can be a very difficult time for a woman with spinal injury who feels that she is no longer in control. It is however surprising how many women are able to overcome this problem.

CONCLUSIONS

Conception, childbirth and delivery is certainly not impossible for a woman with spinal injury although we must not underestimate the difficulties that will arise not just from pregnancy but during the many years of after-care that childbirth generates. Women with spinal injury may need help with these processes to assist them in caring for their child.

It must be remembered that bearing and rearing a child is a very fulfilling experience for a woman and there are few reasons that this need be denied to a woman with a spinal cord injury provided the appropriate support is available to her at all times.



SIR GEORGE BEDBROOK SPINAL UNIT

SEXUAL HEALTH TEAM

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