



As a female with a spinal cord injury (SCI), the question, "Will I be able to get pregnant and have a child?", is likely to cross your mind. There is no proof to show that your ability to get pregnant and have children have changed because of your spinal cord injury. You can have maternal experiences similar to able-bodied women. What you need to know are the effects your disability can have on your pregnancy and how your pregnancy can affect your disability. Statistics show that women with SCI are usually older when they have their first child than women without disabilities. This can result in fertility problems.

Before You Become Pregnant

First, talk with your rehabilitation physician (physiatrist) or the doctor you see for your regular physical check-ups, about your plans for having a family. They can help you find an obstetrician who understands or is willing to learn about your unique needs. Getting information and communicating with your physician and obstetrician prepares everyone for the many changes you will experience.

You need to review with your doctor:

• Medications

Discuss each medication you take with your doctor. Do they have any potential for causing birth defects? If possible, stop taking all drugs, especially during the first 3 months of pregnancy.

• Urologic Check-up

X-rays should not be done during pregnancy unless absolutely necessary, as they could harm the fetus. If you are planning to get pregnant, have a complete urologic exam done first. Discuss with your physician what type of urologic follow-up care you need during your pregnancy.

• Physical Changes

Some women may have skeletal abnormalities, such as curvature of the spine, pelvic fracture, or hip dislocation. These may interfere with the space in the abdomen available to carry a full-term fetus or having a normal delivery.

Discuss all of these concerns with your doctor to see if pregnancy is advisable. You may work with other health care providers during your pregnancy, such as a physical therapist, an occupational therapist, a nurse practitioner, a nurse and a family practitioner. You want

to keep everyone informed of any special needs that you have.

During Your Pregnancy

Pregnancy is a time for change and planning for all women. This is even more important for you because of your spinal cord injury. The changes your body goes through as the fetus grows may cause some physical limitations. By paying attention to the changes, you can keep your body and the fetus healthy during your pregnancy.

One change you may experience is a decrease in your lung capacity. As the fetus grows and your uterus enlarges, it can affect the movement of your diaphragm (chest/rib cage). This can make you more susceptible to pneumonia, especially if you have tetraplegia (quadriplegia).

It is easier for pressure sores to occur during pregnancy. As your weight changes, your center of gravity shifts. This makes it more difficult to do your pressure reliefs and transfers. If a pressure sore should develop, healing can take longer. The growing fetus uses nutrients from your body. This puts more nutritional demands on your body, since you use these nutrients to help your skin heal. Anemia also can result from poor nutrition and contribute to skin breakdown or slow healing.

You may find your bowel and bladder management programs need adjusting during your pregnancy. Constipation is a common problem during pregnancy for women. This happens because of the delayed movement of food through the bowel that occurs with hormonal changes and taking iron supplements.

Incontinence, or a leaking bladder, often occurs due to pressure on the bladder from the growing fetus in the uterus. Bladder spasticity also may increase the incontinence. During your pregnancy you may find that you are more likely to have urinary tract infections. Your doctor may recommend taking antibiotics at specific times during your pregnancy to control chronic infections. If you

use intermittent catheterization for bladder management, you may need to catheterize more frequently during the day.

Another possible concern is an increase of pressure on the veins in the legs as the blood returns to the heart. This can place you at higher risk for developing a blood clot in your legs. This is deep venous thrombosis.

You need to plan for the many changes your body will go through during your pregnancy. Remember that with the increase in your weight and size, you will likely need more help with daily living chores you normally perform on your own. You may need help with transfers, movement in bed, and activities of daily living, like dressing.

It is very important for you to take care of your emotional needs as well as your physical needs. Seek family and friends who can offer reassurance and support.

Labor and Delivery

• Labor

Your spinal cord injury does not affect when the uterus starts contractions for the delivery of the baby. This is controlled by neurohormonal factors that decide the proper time for all women, regardless of their motor function or sensory level.

The signs that determine if a woman has a vaginal or a cesarean section (C-section) delivery are similar in women with spinal cord injury as with able-bodied women. Research has shown however that women with SCI do have more C-sections.

What you feel when you go into labor depends on your level of injury. Women with an injury above the level of T10 will not feel the uterine contractions. They do however have other signs of labor such as fear, anxiety, increased spasticity, respiratory changes, referred pain above the level of injury or autonomic dysreflexia.

Premature Delivery

Women with a spinal cord injury often have no signs of when labor begins. There is also some evidence that premature labor is more likely for these women. There are two concerns related to an early delivery. A premature infant may have developmental or physical problems that could lead to death. An early delivery also may occur outside the health care setting. This could be dangerous for both the mother with SCI and infant.

Your doctor may schedule weekly medical exams late in your pregnancy. Other safety precautions may be to put you on complete bed rest or hospitalization. The use of a contraction monitor at home is another option.

You can have more control and be less anxious during your labor and delivery if you are familiar with your

surroundings and know what to expect. Discuss your delivery with your obstetrician during your pregnancy. Ask for a tour of the hospital delivery department. At this time you can tell your health care team about your specific needs.

• Delivery

Physical Changes

Any changes in your pelvis or spine since your spinal cord injury may affect the delivery of the baby. These changes include scoliosis, hip disarticulation, contractures, heterotopic ossification, or previous fractures. Spasticity also may interfere with the delivery. Any of these conditions can hinder the baby's descent or cause problems with positioning you on the delivery table and stirrups.

Autonomic Dysreflexia

Watch for signs of Autonomic Dysreflexia (AD) at all times during the labor and delivery if your level is at or above T10, especially above T6. Signs may include severe headaches, increased blood pressure, flushing, goosebumps, or sweats. The cause is an intense stimulation that occurs below the level of injury. This can be from a full bladder, a bowel impaction, changing your Foley catheter, or a vaginal or rectal exam. It is important to remember that autonomic dysreflexia often occurs with uterine contractions at time of labor.

Skin Care

You need to pay special attention to your skin during labor to prevent any pressure sores. Ask the nurse to monitor your skin during labor, delivery, and post-op care. In your prenatal tour you may want to request specially needed items such as sheepskin, special mattress, or a shower chair.

Delivery

Delivery for the most part is similar to that for able-bodied women. The delivery may require spinal or epidural anesthesia. The doctor may need to use forceps since you may lack the abdominal muscle control to assist in the delivery. There is some evidence that suggests that the babies of women with SCI may experience a higher incidence of problems breathing at the time of the delivery. They need to be closely monitored.

• After Delivery

After the delivery of your baby, there are still some precautions you should take. This is a time when the chance for urinary tract infection is high. Watch for signs.

You can adjust your bowel and bladder programs to

Special Concerns for Women with SCI during Pregnancy & their Health Care Providers

SPECIAL CONCERNS	WOMAN WITH SPINAL CORD INJURY	MEDICAL PERSONNEL
Activities of Daily Living	Body changes during last 3 months of pregnancy may affect one's balance, mobility, and ability to transfer. May be an awkward time. Assistive devices, like a reacher, can be helpful.	Make needed referrals to occupational therapy and physical therapy as needed. Review independent skills.
Autonomic Dysreflexia	May occur from fetus growth, pressure sores, or bladder/bowel problems, as well as normal pre-pregnancy causes. Ask doctor before taking any medications.	Monitor closely. Use blood pressure lowering medications cautiously. Discuss with delivering physician and anesthesiologist
Bladder Management	Pressure from growing fetus decreases bladder capacity. If using intermittent catheterization (ICP), may need to cath more frequently. Bladder spasms may increase causing leakage with or without a catheter in place. May need to change bladder management program during last few weeks of pregnancy.	Monitor and make recommendations for changes in bladder management methods.
Bowel Management	May have constipation due to increase in size of uterus and pressure on colon. Increase in hormone progesterin and use of iron supplements can delay bowel movements. May need to change bowel program. Increase high fiber in diet, Use laxatives as doctor recommends. Increase exercise when possible. Eating more during pregnancy may require more frequent bowel program or use of stool softeners.	Review all bowel medications, including suppositories, for safety during pregnancy. Encourage diet high in fiber and fluids.
Deep Vein Thrombosis	As fetus grows, pressure on the venous return of blood from the legs increases. May cause swelling/edema. In later stages may need to lay down and elevate feet. Elastic stockings may be used.	Monitor closely for extremity asymmetry.
Medications	Keep all medications to a minimum.	Examine medications used for spasticity, bladder & bowel management and Autonomic Dysreflexia each trimester. Discuss risks and benefits with the woman.
Nutritional Needs	Calcium supplements are important. Anemia may occur, iron supplements usually recommended. Eat foods high in iron. Take pregnancy vitamins. Many need to change diet to suit bowel program	Calcium deficits could promote post injury osteoporosis. Find a level of calcium that meet needs of pregnancy and does not increase frequency of urinary stones. Vitamin/iron deficiency delay healing of pressure ulcers and skin breakdown.
Pressure Ulcers	More likely to occur since an increase in weight makes pressure reliefs and transfers more difficult. Pay attention to skin where pressure sores may form - sacrum, heels, ischia, elbows. Keep skin clean and dry.	Observe skin at check-ups for signs of pressure sores.
Respiratory Capacity Decreases	As fetus and uterus enlarge, It may affect movement of diaphragm. Diminishes capacity of lungs.	Predisposes to pneumonia, especially those with tetraplegia. May need regimme of incentive spirometry or other breathing exercises.
Urinary Tract Infection	UTIs increase in frequency during pregnancy as fetus presses on bladder, urinary tract, and/or catheter. Limited antibiotics available for use. Drink recommended amount of liquids each day.	National Task Force on Sexuality and Disability has a partial list of antibiotics to avoid during pregnancy. A few represented are: aminoglycosides, erythromycin, nitrofurantoin, chloramphenicol, sulfonamides, and tetracycline. UTI may cause premature delivery and fetal death in the expectant mother.

what they were before your pregnancy.

If you had an episiotomy during delivery, hospitals routinely use a heat lamp on the area to aid in healing. If you have a loss of sensation, this should not be used because of the danger of burns.

Some women who have no control over the abdominal muscles may faint or feel dizzy when sitting up for several days after their delivery. To minimize or prevent this from occurring, sit up very slowly, wear elastic hose, and you may use an abdominal binder.

• **Breast Feeding**

Women with a spinal cord injury should be able to breast feed if they wish. If your injury is above T6, breast feeding may increase your spasticity. Also women with levels of injury above T6 report a reduction in milk production after 6 weeks. This may be due to a lack of nipple stimulation that is necessary for milk production to occur.

Summary

The key to a successful pregnancy and delivery is good communication between your rehabilitation physician, urologist, and obstetrician. Discuss all of your concerns with them. One final step is to be sure to plan ahead!

Before your baby comes home, there are child-care adaptation you need to make. You also may need to begin making plans for a day care - one that is accessible for you!

Resources

• **Mother-to-Be: A Guide to Pregnancy and Birth for Women with Disabilities.**

Judith Rogers and Molleen Matsumura. 1991
Demos Publishers. 386 Park Ave S, New York. NY 10016
800-532-8663 \$24.95

• **Through the Looking Glass**

2198 Sixth St, Suite 100, Berkeley, CA 94710-2204;
800-644-2666 or 510-848-1112
email: TLG@lookingglass.org
web site: <http://www.lookingglass.org>

Provides clinical and supportive services, training and research to families in which one or more members - whether parent of child, has a disability or medical issue.

Available from *Through the Looking Glass:*

• **Adaptive Parenting Equipment, Idea Book 1.**

Handbook of ideas for more than 40 pieces of adaptive equipment. \$10 to families / \$25 professionals.

web site: <http://www.ncdr.org/gateways/aat/parent/result.htm>

• **Parenting with a Disability**

Free *newsletter* to parents with disabilities and their family members.

• **Resourceful Woman**

Newsletter with a column called *Resourceful Parenting* by

Health Resource Center for Women with Disabilities

Rehabilitation Institute of Chicago

345 E Superior St, Rm 106, Chicago, IL 606011

312-908-7997 or **email:** jpsparkle@aol.com

Web Resources

• **Bringing up Baby: Products for Parents with Disabilities**

By: Mary Guthrie June, 1997

http: <http://www.teamrehab.com/jun97/jun97feat2.htm>

• **Female Reproduction after Spinal Cord Injury**

May, 1995 (pamphlet)

Paralysis Care Network, The Turnstone Center

3320 N Clinton, Ft. Wayne, IN 46805

http: <http://www.spinalcord.uab.edu/docs/pcn004a.htm>

• **Female Sexuality & Spinal Cord Injury**

Fact Sheet #8, 1992

Arkansas Spinal Cord Commission

1501 N University, Suite 470, Little Rock, AR 72207

501-324-9624

http: <http://www.spinalcord.uab.edu/docs/ark008.htm>

• **Sexual Function and Fertility after SCI**

U Washington Rehabilitation Medicine

http: <http://weber.u.washington.edu/~rehab/sci/update/sex-females6-2.html>

• **Sexuality after Spinal Cord Injury**

Fact Sheet #3, 1996

National Spinal Cord Injury Association

8300 Colesville Rd, Silver Springs, MD 20910

800-962-9629

http: <http://www.spinalcord.org/resources/factshts/fact03.html>

Published by:

Medical RRTC in Secondary Complications in SCI
Training Office, Room 506, UAB Spain Rehabilitation Center
1717 6th Ave S, Birmingham, AL 35233-7330
(205) 934-3283 or (205) 934-4642 (TTD only)

Date: January, 1998

Developed by: Amie B Jackson, MD
Linda Lindsey, MEd

© 1998 Board of Trustees of the University of Alabama